



**Republic of Mozambique  
Ministry of Health  
National Directorate of Public Health**



# **NATIONAL MALARIA CONTROL PROGRAMME**

**Malaria Strategic Plan 2017 – 2022**

**For a malaria-free Mozambique**



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## Foreword

This Malaria Strategic Plan 2017-2022 was developed through a multisectoral, participative process which involved all the National Malaria Control Programme's partners. The Plan was developed following a review of progress and challenges for the Malaria Strategic Plan 2012-2016 and is based on the evaluation recommendations set out in the 2016 Malaria Programme Review as well as on the principles and objectives of international initiatives such as the Global Malaria Action Plan 2016-2030, the Sustainable Development Goals 2015-2030 and the Elimination 8 and MOSASWA SADC malaria initiatives.

The Strategic Plan is an instrument expressing government commitment to resolving the problem of malaria in Mozambique and is integrated within the broader efforts being undertaken to improve the health status of the population.

As a supplement to the Health Sector Strategic Plan 2014-2019, the Malaria Strategic Plan aims to contribute to promoting development in Mozambique, where malaria remains the country's principle challenge to public health and sustainable development.

The National Malaria Control Programme here defines its strategies for fighting malaria – these have been developed using a multisectoral approach to the disease, involving and sharing responsibilities with other sectors. The goals, objectives and indicators to monitor and evaluate the Malaria Strategic Plan have been defined so they complement the activities addressing the disease determinants being undertaken by other ministries, cooperation partners, governmental and non-governmental organisations, civil society, the private sector and religious organisations, among others – and calls for more effective implementation of these interventions.

As funds to achieve the envisaged goals are limited, all existing resources should be maximised so results achieve the intended impact and quality.

I am confident this Malaria Strategic Plan 2017-2022 will provide the required strategic bases for a multisectoral approach and to reduce malaria morbidity and mortality. I urge all those involved in the control and elimination of malaria in the country to invest their best efforts into its implementation in order to support the country achieve its vision of a malaria-free Mozambique.

Maputo, 22 November 2017

Nazira Vali Abdula

Minister of Health



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# 1 Acronyms & Terminology

## 1.1 Acronyms

<b>ACT</b>	artemisinin-based combination therapy	<b>IVM</b>	integrated vector management
<b>AIDS</b>	acquired immunodeficiency syndrome	<b>LLIN</b>	long-lasting insecticidal net
<b>AL</b>	artemether-lumefantrine	<b>LMIS</b>	logistics management information system
<b>ALMA</b>	African Leaders Malaria Alliance	<b>LSHTM</b>	London School of Hygiene and Tropical Medicine
<b>An.</b>	<i>Anopheles</i>	<b>M&amp;E</b>	monitoring and evaluation
<b>ANC</b>	antenatal care	<b>MCH</b>	mother-child health
<b>APE</b>	community health worker	<b>MEF</b>	Ministry of Economy and Finance
<b>BES</b>	weekly epidemiological bulletin	<b>MiP</b>	malaria in pregnancy
<b>C</b>	Celsius	<b>MIS</b>	Malaria Indicator Survey
<b>CHAI</b>	Clinton Health Access Initiative	<b>MISAU</b>	Ministry of Health
<b>CISM</b>	Manhiça Health Research Centre	<b>mm</b>	millimetres
<b>CMAM</b>	Central Medicine and Medical Equipment Stores	<b>MPR</b>	Malaria Programme Review
<b>DDT</b>	dichloro-diphenyl-trichloroethane	<b>MSP</b>	Malaria Strategic Plan
<b>DEPROS</b>	Department for Health Promotion	<b>NMCP</b>	National Malaria Control Programme
<b>DFID</b>	Department for International Development (UK)	<b>OR</b>	operational research
<b>DHIS2</b>	District Health Information System 2	<b>P.</b>	<i>Plasmodium</i>
<b>DHS</b>	Demographic and Health Survey	<b>PESS</b>	Health Sector Strategic Plan 2014–2019
<b>DNSP</b>	National Directorate of Public Health	<b>PfPR</b>	<i>P. falciparum</i> parasite rate
<b>DPC</b>	Directorate of Planning and Cooperation	<b>PHC</b>	primary health care
<b>DPS</b>	Provincial Health Authority	<b>PMI</b>	Presidents Malaria Initiative
<b>E8</b>	Elimination 8	<b>PSM</b>	procurement and supply management
<b>e-SISTAFE</b>	electronic state financial management system	<b>QA</b>	quality assurance
<b>EPR</b>	epidemic preparedness and response	<b>QC</b>	quality control
<b>GDP</b>	gross domestic product	<b>RBM</b>	Roll Back Malaria
<b>GoM</b>	Government of Mozambique	<b>RDT</b>	rapid diagnostic test
<b>GTS</b>	Global Technical Strategy for Malaria 2016–2030	<b>SADC</b>	Southern African Development Community
<b>HIV</b>	human immunodeficiency virus	<b>SBCC</b>	social behavioural change communication
<b>HMIS</b>	health management information system	<b>SDG</b>	Sustainable Development Goals
<b>HR</b>	human resources	<b>SDSMAS</b>	District Services for Health, Women and Social Action
<b>IMISS</b>	integrated malaria information storage system	<b>SIMAM</b>	Medicines and Medical Equipment Information System
<b>IMASIDA</b>	HIV/AIDS and Malaria Indicator Survey	<b>SM&amp;E</b>	surveillance, monitoring and evaluation
<b>INE</b>	National Statistics Institute		
<b>INFORM</b>	Information for Malaria	<b>TMP</b>	traditional medical practitioners
<b>INS</b>	National Institute of Health	<b>TWG</b>	technical working group
<b>IPC</b>	interpersonal communication	<b>UNICEF</b>	United Nations Children’s Fund
<b>IPTp</b>	intermittent preventive treatment in pregnancy	<b>USD</b>	United States Dollar
<b>IRS</b>	indoor residual spraying	<b>WHO</b>	World Health Organisation

## 1.2 Terminology

Please note the explanations below of a number of key terms used throughout this strategic plan:

- **Malaria** is caused by a single-cell parasite of the genus *Plasmodium* (*P.*) and is transmitted by mosquitoes of the genus *Anopheles* (*An.*). Humans are mainly infected by four *Plasmodium* species: *P. falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*. The first two cause most human malaria, and *P. falciparum*, the form of malaria most likely to lead to death, especially in children, is the major cause of malaria in Africa<sup>1</sup>.
- A **malaria case** refers to the occurrence of malaria infection in a person in whom the presence of malaria parasites in the blood has been confirmed by a diagnostic test<sup>2</sup>.
- Malaria **transmission** is the process by which malaria parasites pass from an infected person to a new host or person, generally from a mosquito, however, although rare, malaria can also be transmitted from mother to child (congenital malaria) or in blood transfusions.
- **Malaria (parasite) prevalence** refers to the proportion of a specified population with malaria infection at one time.
- **Malaria incidence** refers to the number of newly diagnosed malaria cases during a defined period in a specified population. The malaria incidence rate is commonly expressed as the number of new cases of malaria per 1000 people per year.
- **Case management** is the diagnosis, treatment, clinical care, counselling and follow-up of symptomatic malaria infections<sup>3</sup>.
- A **long-lasting insecticidal net (LLIN)** is a net which leaves the factory with a reservoir of insecticide incorporated into or bound around the fibres – the insecticide (which kills, disables or repels mosquitoes that come into contact with it) must be effective for at least 20 World Health Organisation (WHO) standard washes under laboratory conditions and three years of recommended use under field conditions. These LLIN do not need re-treatment with insecticide.
- **Distribution mechanism** in this document describes an entire system used to successfully deliver nets to households.
- The terms **mass distribution / distribution campaigns** are used interchangeably and refer to LLIN distributions targeting whole communities, organised at intervals of approximately three years by the public sector. LLIN are distributed free of charge to the beneficiaries.
- **Continuous distribution** is used to describe any distribution mechanisms (outside campaigns) designed to sustain universal coverage by delivering LLIN on a regular basis, i.e. on demand, quarterly or at least annually. Routine distributions to pregnant women through antenatal care (ANC) are part of these distribution mechanisms, which may also include community-based and school-based distributions, distributions by other health services (curative, HIV/AIDS etc.) and distributions by the commercial sector (subsidised or at cost).
- **Coverage** is a general term referring to the fraction of the population of a specific area that receives a particular intervention<sup>4</sup>.
- **Access** refers to the ease with which malaria interventions can be reached by end users.
- **LLIN use** refers to sleeping under an LLIN.
- **At all levels** refers to central, provincial and district level public services, but does not include community level unless stated.
- Malaria **control** refers to the reduction of disease incidence, prevalence, morbidity or mortality to a locally acceptable level as a result of deliberate efforts. Continued interventions are required to sustain control<sup>5</sup>.
- Malaria **stratification** is the classification of geographical areas or localities according to epidemiological, ecological, social and economic determinants for the purpose of guiding malaria interventions<sup>6</sup>.
- Malaria **elimination** refers to the interruption of local transmission (reduction to zero incidence of indigenous cases) of a specified malaria parasite in a defined geographical area as a result of deliberate activities. Continued measures to prevent re-establishment of transmission are required<sup>7</sup>.
- Malaria **eradication** is the permanent reduction to zero of the worldwide incidence of infection caused by human malaria parasites as a result of deliberate activities. Interventions are no longer required once eradication has been achieved<sup>8</sup>.





## 2 Executive Summary

### 2.1 Background

The focus of this Malaria Strategic Plan (MSP) 2017–2022 is on reducing the burden of malaria in high transmission areas and sustaining the gains in low transmission areas to accelerate towards elimination.

Malaria remains the most important public health problem in Mozambique, accounting in 2015 for 29% of all hospital deaths and 42% of deaths in under-fives. Important progress has, however, been made and by 2015 there was a 9% decline in confirmed and unconfirmed cases from 2009 and a 34% reduction in mortality.

The major malaria vectors in the country are *An. gambiae s.s.*, *An. arabiensis*, and *An. funestus s.s.*. *P. falciparum* is the most common parasite, accounting for over 90% of all malaria cases, with *P. malariae* and *P. ovale* accounting for 9% and 1%, respectively<sup>9</sup>.

Malaria transmission dynamics and endemicity in Mozambique are highly variable, and strongly influenced by geography and climate with higher intensity in the north and in coastal areas.

The malaria situation in Mozambique is heterogeneous, and accurate malaria stratification is essential for strategic, effective targeting of interventions and resources. Based on the results of the malaria stratification, the National Malaria Control Programme (NMCP) determines the appropriate package of interventions to apply to different areas of the country. These choices will be based on the epidemiological, ecological and socio-cultural features of each area, and will be reassessed annually.

### 2.2 NMCP Vision

A malaria-free Mozambique

### 2.3 NMCP Mission

Lead and coordinate the implementation of effective interventions to reduce morbidity and mortality due to malaria in Mozambique

### 2.4 NMCP Goals and Objectives

The following goals and objectives will drive the activities of Mozambique’s fight against malaria over the next six years (2017 – 2022):

#### GOALS

1. By 2022, reduce malaria morbidity at national level by at least 40% compared to levels observed in 2015
2. By 2022, reduce malaria inpatient mortality at national level by at least 40% compared to levels observed in 2015



These objectives and their associated strategies, designed to achieve the overall goals of the Programme, were developed through an intensive and participative analysis and planning process which included the NMCP team, representatives from central and provincial MISAU departments, as well as national and international funding, technical and implementation partners.

This MSP 2017–2022 builds upon the previous strategy, which was updated following a midterm review in 2014, and ended in December 2016. In late 2016, a Malaria Programme Review (MPR) took place, led by WHO and supported by malaria partners. The delayed implementation of the MPR affected the schedule to develop the NMCP’s follow-on strategy, therefore the Ministry of Health (MISAU) has decided this MSP will be operational for a period of six years, given a proportion of the first year will have been devoted to development and approval of the strategy.

This MSP draws upon national experience and lessons, global technical strategy and expertise, and country context – its content ensures Mozambique’s malaria responses remain aligned with global malaria goals and guidance and it has been developed to provide strategic guidance for the fight against malaria in Mozambique for the next six years. The MSP will also support NMCP resource mobilisation activities.

## 2.5 Strategic Logic

The strategies of **Objective 1** address overall management of the PNCM: clarity on its organisational and functional structure is fundamental to the achievement of NMCP objectives in all other areas and must therefore be completed early in the MSP 2017 – 2022. Implementation of the selected programme management strategies will provide the operational framework for strengthening technical and administrative areas, stakeholder management and coordination efforts.

This is a challenging period for the NMCP – a multifaceted approach, many partners, a substantial budget and ambitious goals and targets – all requiring advanced coordination and placing heavy demands on NMCP leadership. Critical to going forwards will be realistic review and commitment of the necessary financial and human resources (HR) as well as the contribution of active multi-sectoral collaboration (ministries, municipalities, provincial government, private sector and civil society) to ensure the NSP objectives are reached.



**Objective 2** strategies support achievement of NMCP goals through implementing universal coverage with vector control and intermittent preventive treatment in pregnancy (IPTp) as the main ways to prevent and reduce malaria transmission effectively. All districts in Mozambique have been reached by at least one vector control intervention, with the new focus of this objective being to improve the coverage, quality and use of these interventions. In addition, there will be space made to introduce new vector control methods, such as larval source management and improvements to homes.

Prompt diagnosis and treatment is essential to reduce malaria morbidity and mortality and to help prevent further spread of infection. Mozambique has the tools and policies in place to support confirmation of all suspected malaria cases with a diagnostic test prior to treatment with effective antimalarials. The focus of **Objective 3** and its supporting strategies is to improve the quality of case management and ensure adherence to national guidelines in order to support achievement of the MSP goals.

There is strong MISAU and NMCP commitment to ensure social behavioural change communication (SBCC) activities are based on sound evidence and implemented at scale to demonstrate impact. As a result, the SBCC activities planned in this MSP through the strategies developed to achieve **Objective 4** are clearly defined, allowing implementation to be effectively measured. Improved collaboration with other malaria intervention areas, which all rely on SBCC, will be essential for meeting the MSP goals.

There is high level political commitment from the Government of Mozambique (GoM) to support regional elimination efforts; funding and technical partnerships have been secured to implement focused activities according to the epidemiological situation. MISAU will be basing progress towards elimination on evidence and capacity as planned through the strategies of **Objective 5**, in order to ensure sustainability and the best health outcomes for the population.

There is political commitment to improving MISAU data quality and surveillance, monitoring and evaluation (SM&E), including data from the district health information system (DHIS2). As such, the NMCP is confident in its capacity to deliver on the strategies developed to achieve **Objective 6** by 2020, thereby providing the evidence required to inform decision-making and monitor progress towards achieving morbidity and mortality goals.

Through the strategic framework detailed in this MSP (Section 7), the priority intervention areas of service delivery, supportive activities and governance have been addressed using an integrated approach to provide the best opportunity for the programme to achieve its medium and long term goals.

## 3 The Malaria Programme Performance

### 3.1 Evaluation Results: Implementation of the MSP 2012-2016

The MPR, finalised in 2017<sup>10</sup>, noted moderate NMCP progress in reducing malaria morbidity and mortality. Specifically, **programme management** was found to have increased capacity at central and provincial level since 2012 – with dedicated malaria focal points appointed at provincial and district level. All relevant policies and guidelines are in place. The logistics management information system (LMIS) is established and provides ACT and RDT consumption and inventory data to district level and improved antimalarial commodity quantification processes have positively impacted their forecasting and availability. District level LLIN warehousing remains problematic.

Noted progress in **vector control** include increases in household LLIN ownership (51% in 2011, rising to 66% in 2015), increases in the percentage of children under five years who slept under LLIN (36% in 2011 to 48% in 2015) and increases in the number of pregnant women protected with either an LLIN or IRS (from 45% in 2011 to 58% in 2015).

**Case management** saw improvements in parasitological diagnosis of suspected malaria cases, with 85% of suspected cases receiving testing in 2015. The capacity to confirm all suspected malaria cases has improved and systems are in place to conduct quality control (QC) and assurance (QA); therapeutic efficacy studies are conducted regularly. Malaria case management is also provided to hard-to-reach populations by APEs.

Overall, there was improvement in the utilisation of malaria prevention and treatment services as evidenced by population surveys. As **SBCC** activities have been considered expensive, funding has been focused on SBCC activities for IRS and during LLINs mass distribution campaigns. Studies have not been conducted to identify main drivers for positive social and behaviour change affecting uptake of malaria interventions in the country.

Improvements were also noted in SM&E capacity, including data analysis at central and provincial level. In 2015, improvements were noted in the timeliness (98%) and completeness (95%) of data reporting. The NMCP has identified and prioritised pertinent OR requirements. Issues were identified regarding the widespread unavailability of outpatient consultation registers and the limited access to internet or poor connectivity for DHIS2 use at all levels. Please refer to the MPR final report for a detailed description of the NMCP's overview of past successes and ongoing challenges and how these have been or will be addressed.

### 3.2 Contribution to Health Systems Strengthening

Successful implementation of malaria interventions is dependent upon the health system, therefore all malaria programme activities are approached with a view to strengthening the system and supporting more equitable and efficient health service delivery.

The malaria program has made the following contributions to health systems strengthening:

- Improved provincial level capacity to plan, implement and supervise large scale campaigns for LLIN distribution and IRS.
- Addressing constraints which affect the flow of health supplies, information and services to improve broader and specific health outcomes.
- Roll out and oversight of LMIS and skills building in inventory control.
- Procurement of trucks and vehicles for all provinces to improve implementation capacity and efficiency.
- Increased storage capacity at provincial / district level through purchase and placement of container warehousing.
- Support to the roll out of the DHIS2 platform, as well as to improving data management and quality.
- Roll out of malaria case management to community level – and strengthening of skills in this area.
- Support to PHC through alignment of NMCP interventions with broader MISAU PHC reforms.

### 3.3 Financing

A PESS costing exercise indicates significantly more resources (22%) are required for malaria than other programmes in the National Directorate of Public Health (DNSP). For the period 2014 to 2019 this analysis



estimates total NMCP financial requirements at nearly USD 310 million – almost 79% of this value is for medicines and commodities (mostly LLIN), 10% for communications, media, and outreach, and 10% for programme management (including IRS operational costs and coordination meetings at national and provincial level)<sup>11</sup>.

GoM financing contributions to malaria have been estimated at USD 15 million (2012), USD 21 million (2013) and USD 12 million (2014) – based on a conservative calculation of 2.88% of total health expenditure for malaria. Between 2012 and 2014, a little over half of GoM contributions were financed through a World Bank loan to MISAU; on completion of the grant, GoM contributed an additional USD 6.8 million to malaria in 2015 (total contribution: USD 12.6 million)<sup>12</sup>. The GoM covers most NMCP HR and day-to-day operational costs at provincial and district level (fuel, transport etc.), in addition to guaranteeing required infrastructure and supporting IRS operational costs.

Since 2012, the main sources of external funding for malaria have been from PMI (approximately 39% of total funding, the Global Fund (around 37% of total funding), and GoM (about 20% of total funding). PMI funds are managed by selected implementing agencies and Global Fund funds are granted to two principle recipients – government and civil society. Since 2012, additional resources have been provided by UNICEF, DFID, Spain, the Netherlands, and WHO<sup>13</sup>.

- **THE GLOBAL FUND** – Global Fund grants have been central to scaling up of control efforts in Mozambique since 2005. To date, The Global Fund has committed over USD 250 million and disbursed approximately USD 176.5 million. Current performance for the malaria grant of just approximately USD 169.3 million has been “A1 – exceeding expectations”. Mozambique is currently negotiating for a continuation grant of approximately USD 167.8 million.
- **PMI** – to date, PMI has disbursed over USD 270 million to support malaria control efforts in Mozambique. Financial and technical commitments are renewed and revised annually in the PMI Malaria Operational Plan. PMI’s three technical advisers work closely with the NMCP. For the US 2017 financial year (October 2016 to September 2017), PMI’s commitment of USD 29 million supports specific activities in nine intervention areas: entomologic monitoring and insecticide resistance management, LLINs, IRS, MiP, case management, health systems strengthening and capacity building, SBCC, SM&E, and OR.

Nonetheless, the Mozambique malaria programme has been operating without being fully resourced. Annual resource requirements have ranged from USD 85 million to USD 124 million, with an average cost of USD 108 million based on the previous MSP (Figure 6-1).

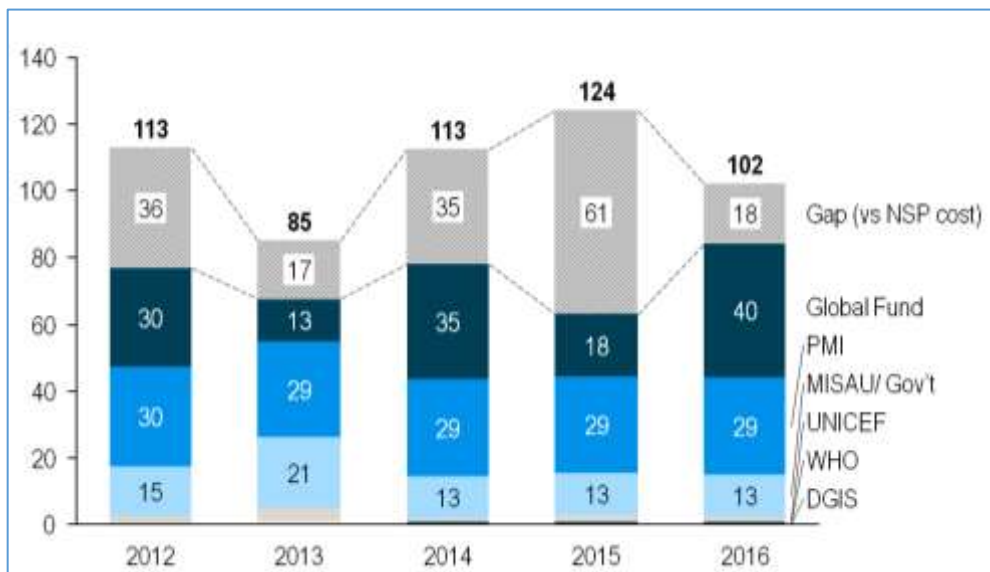


Figure 3-1 Indicative malaria programme funding sources and gaps, 2012 – 2016

Source: MPR 2016<sup>i</sup>

<sup>i</sup> DGIS refers to the Dutch Ministry of Foreign Affairs

## 4 Introduction

### 4.1 Malaria as a Public Health and Socioeconomic Problem in Mozambique

#### 4.1.1 Malaria as a public health problem

The entire population of Mozambique (just over 27.1 million in 2017<sup>14</sup>) is at risk of malaria, with the majority living in areas with high risk of malaria infection.

Despite significant investment and progress in malaria control over the last ten years, the disease remains a major public health burden in Mozambique. In 2015, the MSP baseline year, there were just over 6.4 million new cases of malaria reported by health facilities (5,833,322) and community health workers, known as APEs (588,404). The number of reported malaria cases has increased annually since 2012, however, in 2015 the 6% increase in cases from 2014 was the lowest percentual increase since 2012. APE programme data show a 76% increase from 2014 in the number of cases reported by APEs. This increase could be associated with the increased number of APEs (3,109 in 2015 compared to 2,747 in 2014), and improved availability of malaria rapid diagnostic tests (RDTs) and antimalarials at community level through APEs.

While the number of deaths from malaria has seen a gradual decline since 2012, malaria remains the leading cause of child mortality in Mozambique. In 2015, there was a 24% decrease in deaths from malaria, reversing what had been an upward trend since 2010<sup>15</sup>. There were 2,465 deaths from malaria in 2015 and nearly 86 thousand cases of severe malaria (85,785) – a 9% reduction from 2014.

According to the 2015 annual NMCP report, malaria accounted for 45% of outpatient consultations, 23.5% of hospital admissions (all ages) and 29% of deaths (Figure 3-1).

Preliminary 2016 data from the NMCP and APE programme indicate there were almost 7.5 million new cases of malaria reported by health facilities (6,191,260) and APEs (1,354,831), and 1,685 people died of malaria.

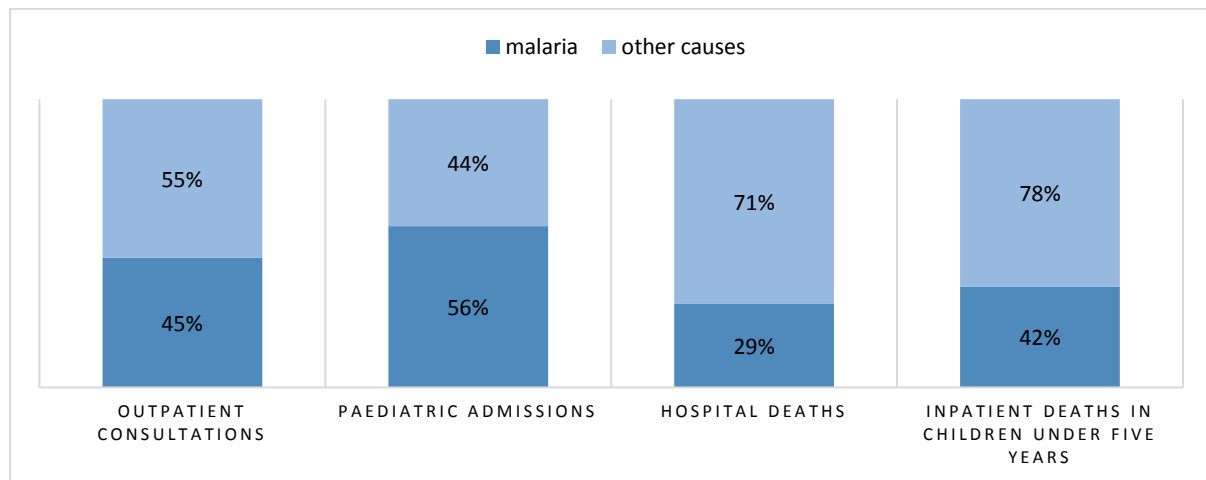


Figure 4-1: Proportion of all cause consultations, admissions and deaths due to malaria in 2015

Source: NMCP 2015 Annual Report

It is known malaria in pregnancy (MiP) can lead to miscarriage and severe anaemia, and in rural Mozambique, malaria contributes to the high maternal mortality rates observed (408 per 100,000 births<sup>16</sup>). In Sub-Saharan Africa, estimates suggest 11% of newborn deaths and 6% of all infant deaths may be caused by low birth weight associated with malaria in pregnancy<sup>17</sup> – with malaria being the leading cause of low birth weight in newborns (3.8% in 2015<sup>18</sup>) in Mozambique.

The disease also contributes greatly to anaemia among children, a major cause of poor growth and development –in 2015, 63.8% of Mozambican children had some level of anaemia, the majority of which was moderate (33.8%)<sup>19</sup>.

### 4.1.2 Malaria as a socioeconomic problem

The 2015 integrated HIV/AIDS and Malaria Indicator Survey (IMASIDA) showed malaria prevalence of up to 60% among households of the poorest quintiles, reinforcing the need for a multi-sectoral approach which supports health sector actions by addressing the social determinants of health (social, economic, political, cultural, and environmental) and prioritising the most disadvantaged population groups. Malaria and poverty are closely intertwined in Mozambique, where between 41% and 45% of the population is poor and individual and household vulnerability is very high<sup>20</sup>. The impact of malaria is felt at all levels of society from the individual through to the government.

**Individuals** and their families face costs related to seeking treatment, being away from work, missing school and for burial in the case of death. According to the recent Household Budget Survey, in the period 2014/15, households spent 1.3% of their monthly income on health<sup>21</sup>.

The rural poor are disproportionately affected as their housing provides only limited barriers against mosquitoes – they also often have more limited access to preventative information and services and to timely diagnosis and treatment.

For **government**, malaria places a burden on the health system (health facility supplies and HR, procurement and logistics for medicines and other supplies, LLIN distribution and indoor residual spraying – IRS costs etc.). Economic output, growth and development are also affected through work absenteeism and reduced productivity.

## 4.2 Context and Commitments

### 4.2.1 National context and commitments

The Health Sector Strategic Plan 2014–2019 (PESS) is the guiding policy document for MISAU and presents the government's overall health priorities, implementation approaches, and resource commitments. The PESS adopts primary health care (PHC) in its guiding principles and recognises the need to increase access to health services, improve delivery mechanisms, and provide greater overall equity and quality.

Reducing the malaria burden is a primary PESS priority. This MSP is aligned with the PESS priorities and strategies so as to contribute to achievement of national targets, improvements in health indicators, and support increased effectiveness of public health implementation. The MSP also contributes to two further PESS priorities, namely accelerating progress in the reduction of maternal and neonatal mortality and sustaining gains in reducing under five mortality, please refer to the PESS for further reading on specific objectives related to malaria.

The PESS sets out the need for a social determinants approach and multi-sectoral collaboration – particularly, for malaria, collaboration between the Ministries of Health, Education & Human Development, Land, Environment & Rural Development, Youth & Sport, Transport & Communication, and Public Works, Housing & Water Resources, as well as provincial and district government, and municipalities. Multisectoral collaboration is understood as a set of collective actions involving multiple government institutions performing different roles to mitigate malaria transmission. The approach will focus on complementarity, effectiveness and sustainability to take advantage of potential synergies to speed up malaria elimination and socioeconomic development. Involvement of these different sectors requires strong and effective coordination. MISAU will coordinate the contributions from all sectors and will provide technical leadership in order to operationalise the collaboration.

### 4.2.2 International context and commitments

Strong international commitment to malaria elimination is reflected in the WHO Global Technical Strategy for Malaria 2016–2030 (GTS), adopted by all WHO member states. The GTS guides international and national efforts to scale up malaria interventions and move towards elimination. Its vision to achieve a world free of malaria is supported by ambitious goals (see Table 3-1 below) – challenged by the need to sustain substantial financial and technical commitment if they are to be achieved.

In addition to establishing national goals to reduce malaria mortality and morbidity by 40%, Mozambique, through this MSP, is aligned with the GTS, through developing appropriate responses that include applying different strategies within the country according to endemicity, strengthening community engagement, and



renewed commitment to inter-sectoral and cross-border collaboration. MSP goals and targets (Section 8.5) reflect this commitment.

Commitments to funding and global health may be affected in 2017 due to expected leadership changes at the United Nations, World Health Organisation (WHO), Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), the World Bank and the United States government’s Presidents Malaria Initiative (PMI).

Table 4-1: WHO Global Technical Strategy for Malaria 2016–2030 goals & targets

Goals	Milestones		Targets
	2020	2025	2030
• <b>Reduce malaria mortality rates globally compared with 2015</b>	At least 40%	At least 75%	At least 90%
• <b>Reduce malaria case incidence globally compared with 2015</b>	At least 40%	At least 75%	At least 90%
• <b>Eliminate malaria from countries in which malaria was transmitted in 2015</b>	At least 10 countries	At least 20 countries	At least 35 countries
• <b>Prevent re-establishment of malaria in all countries that are malaria-free</b>	Re-establishment prevented	Re-establishment prevented	Re-establishment prevented

Key global funding sources for malaria are the Global Fund, PMI, Bill & Melinda Gates Foundation and the British Department for International Development (DFID).

The MSP is also consistent with key global and regional initiatives, including the Sustainable Development Goals (Appendix B details how each MSP objective is aligned with and supports national efforts to achieve relevant SDGs) and the 2001 Abuja Declaration (total health expenditure in Mozambique has grown from approximately 5% in 2008 to 7% in 2014). The NMCP works closely with the Roll Back Malaria (RBM) Partnership, Southern Africa RBM Network, ALMA (African Leaders Malaria Alliance), IVCC (Innovative Vector Control Consortium) and Medicines for Malaria Venture, among other partners.

### 4.2.3 Regional commitments

The following provides an overview of current regional commitments support to malaria interventions in Mozambique:

- **ALMA** – ALMA is a ground breaking coalition of 49 African Heads of State and Government, of which Mozambique is a part, working across country and regional borders to eliminate malaria by 2030.

- **Southern Africa Development Community (SADC)** - SADC prioritises the health of its population and through Articles 9 and 11 of the SADC Protocol on Health (Maputo, August 1999) calls upon Member States to harmonise and standardise policies pertaining to malaria control and urges Member States to efficiently utilise resources, harmonise goals, policies, guidelines, protocols and interventions and coordinate operational research (OR) for the effective control of malaria. Mozambique is a part of SADC and works collectively to reduce the malaria disease burden in the region.



- **Elimination 8 (E8)** – under SADC leadership, this initiative is a coordinated multi-country approach with strong cross-border collaboration between countries whose success in achieving elimination (Botswana, Namibia, South Africa and Swaziland) depends on their neighbours success in controlling cross-border malaria importation (Angola, Mozambique, Zambia and Zimbabwe). In November 2015 the Global Fund awarded the E8 initiative USD 17.8 million for three years (for all eight countries).
- **MOSASWA** – a cross-border collaborative malaria control initiative between South Africa, Swaziland and Mozambique to accelerate progress towards regional malaria elimination goals. The intention is to harmonise policy, strengthen capacity, share expertise, expand access to elimination interventions, mobilise resources and advocate for long-term funding to ultimately achieve and sustain malaria elimination in the MOSASWA region. Launched in 2015, the cross-border initiative’s principal funding sources up to 2019 are the Global Fund and the private sector (USD 9.7 million for all three countries).

## 5 Mozambique - Country Profile

### 5.1 Socio-Political System

#### 5.1.1 Administrative divisions and structures: influencing effective implementation at all levels

Mozambique, located on the east coast of southern Africa on the Indian Ocean, shares borders with six countries (Tanzania, Malawi, Zambia, Zimbabwe, South Africa and Swaziland). With a surface area of 799,380 km<sup>2</sup>, the coastline stretches almost 2,700 km from north to south and the climate ranges from tropical to subtropical.

There are 11 provinces in Mozambique, one of which is the capital, Maputo City. The provinces are clustered into three regions: north (Niassa, Cabo Delgado and Nampula), central (Zambézia, Tete, Sofala and Manica) and south (Gaza, Inhambane, Maputo and Maputo City).

Provinces are, at present, subdivided into 158 districts, which are further subdivided into 405 administrative posts (the main subdivisions of districts), and then again into localities – the lowest geographical level of the central state administration. There are currently 43 municipalities classified either as cities or towns – however classifications are ongoing.

Each provincial government is headed by a governor who is nominated by the President of the Republic and reports to central government. The provincial government legislates on province-specific matters. There are also provincial and municipal assemblies. Administrative posts and localities are represented by local authorities called ‘chefes’.



Figure 5-1: Map of Mozambique

Mozambique is engaging in a policy of decentralisation – a policy which is reflected in the second pillar of the PESS, which pursues a “reform and decentralisation agenda” in order to improve the quality, effectiveness and efficiency of health care service provision, accountability and transparency, and to promote health equity.

In practice, two methods of decentralisation have been followed:

1. *Deconcentration*, whereby central government authorities implement programmes in each district of the country, which are run by a district administrator nominated by central government.  
For the health sector, deconcentration relates to the transfer of authority, responsibilities and resources from central to lower levels within the same administrative structure, i.e. from central MISAU to the provinces and District Services for Health, Women and Social Action (SDSMAS).
2. *Devolution*, which occurs in the municipalities, each electing a president and a municipal assembly.

For the health sector, devolution involves the transfer of authority, responsibilities and resources from central level to a separate administrative structure within the public administration, which is usually elected, such as local Municipal Councils.

As a result of decentralisation, the focus for resource allocation has changed from sectorial to geographic, with the state budget attributed directly to different management units e.g. provincial government, Provincial Health Authority – DPS, some hospitals, municipal assemblies and district administration. District administrations' budgets are decided by provincial government, which then allocates resources to the SDSMAS and rural hospitals.

The district is now the most important administrative and implementation authority for public services, including health (and therefore NMCP) policies.

## 5.2 Demographic Data

According to projections from the 2007 national census<sup>22</sup>, the population of Mozambique in 2017 is 27,128,530, almost 68% of which lives in rural areas. Just over half the population is female (51.69%) and 18% is under five years old. The annual population growth rate is 2.7%<sup>23</sup>.

Approximately 40% of the entire population of Mozambique is concentrated in the central and northern provinces of Zambézia and Nampula. Although the average population density is 32 per km<sup>2</sup>, density varies across the country, with the majority of the population living along the coastline<sup>24</sup>.

## 5.3 Ecosystem, Environment and Climate

Malaria transmission dynamics and endemicity in Mozambique are highly variable, and strongly influenced by geography and climate.

### 5.3.1 The major geographical characteristics of the country

The Zambezi and the Save rivers divide the country into three topographic regions. The region to the north of the Zambezi follows the narrow coastline between the ocean and the Niassa highlands, Mount Namuli (Zambézia), and the Macondes plateau (Nampula). At 2,436 metres, Mount Binga (Manica) is the highest point of Mozambique (on the border with Zimbabwe). The major lake is Lake Niassa.

### 5.3.2 Climate

Meteorological conditions affect transmission range and seasonality. Mozambique has a tropical climate with two seasons: a wet season from October to March, and a dry season from April to September, although climatic conditions vary depending on region and altitude. Southern Mozambique, with its tropical dry savannah climate, is more prone to droughts than the central region which has a mainly tropical rainy climate, and the northern region, which has a moderately humid climate modified by altitude. Central Mozambique is most prone to floods, tropical cyclones and epidemics, followed by the southern then northern regions.

From a climate perspective, Mozambique has four different regions: the north, centre, south, and coast. Key climate variables, such as minimum overnight temperature, diurnal temperature range, and significant precipitation events (days with at least 50 mm precipitation) vary by region and in turn influence malaria endemicity. Malaria endemicity and transmission are most intense in the north and in coastal areas, where overnight minimum temperatures and precipitation are highest, and diurnal temperature range the smallest. In general, deviations from climate norms result in changes in malaria transmission dynamics. For example, in the north, where precipitation is higher, significant precipitation events result in decreased transmission, likely due to breeding sites being washed out. In contrast, in the south, where precipitation is less common, precipitation events lead to an increase in malaria, probably as they lead to the creation of more breeding sites.

## 5.4 Socioeconomic Situation: influencing resources available for efficient malaria control activities and human vulnerability

Illiteracy in Mozambique (50% nationally) is higher among women (64%) than men (35%) and greater in rural (66%) than urban (26%) areas. Life expectancy at birth in 2015 was just under 52 years for men and 56 years for women<sup>25</sup>. The maternal mortality rate in 2011 was 408 per 100,000 births<sup>26</sup>, and in 2015, the under-five mortality rate (per 1,000 live births) was 79<sup>27</sup>.

With its low socioeconomic indicators, Mozambique is currently classified as a least developed country. The recent discovery of rich natural resources could enable Mozambique to transition to a middle income country in the medium to long term.

Despite rapid economic expansion over the past decades, the impact on poverty reduction has been moderate. The 2015 Human Development Index ranked Mozambique 180 out of 188 countries and territories – with 61% of the population living below the income poverty line i.e. living on less than USD 1.25 per day. Recently released 2014/15 household budget survey data reveal that despite a decrease in national consumption poverty<sup>ii</sup> from 52% (in 2008/09) to 46%, there is increasing rural / urban, north / south and rich / poor disparity in Mozambique. Despite strong performance in reducing poverty nationally, the number of households living in poverty has actually increased as a result of population growth<sup>28</sup>. In 2015, gross domestic product (GDP) per capita was US\$ 601<sup>29</sup>.

The Mozambican economy is dominated by agriculture, but also includes fisheries, some manufacturing, and electricity exports from Tete province to neighbouring countries. There are rich natural gas and coal resources (Cabo Delgado, Tete, Inhambane provinces), as well as important deposits of minerals, such as heavy sands, graphite and gold (Nampula, Cabo Delgado, Niassa, Inhambane, Tete and Manica provinces). Aluminium (Maputo province) is currently the most important export product.

Mozambique's growth rate in 2016 (3.3%) was the lowest in over a decade – until 2014, the average annual growth rate had been over 7%<sup>30</sup>. The country's economic slowdown, resulting from low commodity prices, and drought, has been compounded by a financial crisis and the suspension of direct budget support (in 2010, the greatest contributions to the state budget were from donor aid, at around 50%<sup>31</sup>). Inflation, which averaged just under 20% in 2016, has been worsened by currency devaluation – significantly impacting the general population's living conditions.

In 2015, total health expenditure was just under 7% of GDP. In 2013, general government expenditure on health was nearly 9% (below the Abuja target of 15%) and total health expenditure per capita was USD 40 (WHO recommends USD 60)<sup>32</sup>.

### 5.4.1 Infrastructure: influencing access and implementation

Mozambique has a weak fixed telecommunication network and a relatively strong mobile network. There are three mobile operators and coverage includes all the main cities and key roads. Over half the population (56%) has a mobile telephone<sup>33</sup>, with ownership higher in urban (80%) than rural (46%) areas. Internet use is among the lowest in southern Africa at under 5% in 2012<sup>34</sup>.

The cities of Beira (Sofala province), Maputo, and Nacala (Nampula province), have major seaports, with Pemba (Cabo Delgado province) also having a functional seaport.

In central Mozambique, the transport network infrastructure extends from Beira Port to Zimbabwe, Malawi and Zambia. The southern transport network links Maputo Port to north-eastern South Africa, Swaziland, and Zimbabwe. There is some development of west-east transport infrastructure, particularly the railway system to connect mining, energy and agricultural investments inside Mozambique and link neighbouring countries to ports and in recent years there has been increased investment in the road network. Populations living along these different transport corridors are relatively well connected<sup>35</sup>.

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<sup>ii</sup> The survey covered aspects related to consumption (monetary) poverty as well as aspects related to wellbeing or deprivation not necessarily captured by consumption data.

#### 5.4.2 Coverage of mass media: for sharing information, influencing behaviours & practices

In addition to the state television station (TVM), which has national coverage, more limited, regional coverage is offered by three of the more important national private stations (Miramar, Soico TV and TIM). Print media circulation is limited due to the high illiteracy levels in the country; there are currently five major newspapers printed daily or weekly.

The state-run *Rádio Moçambique* broadcasts nationwide in Portuguese and local languages. There are also private radios which have more limited coverage. In addition, there are over 90 community radio stations (generally reliant on volunteers and external support) in about 70 districts around the country, broadcasting issues of local interest and relevance in local languages.

Nearly 40% of Mozambicans own a radio – more so in rural (42%) than urban (33%) areas. About a quarter of the population (24%) owns a television – more so in urban (59%) than rural (9%) areas<sup>36</sup>. Although access to mass media (radio, television, newspapers and online content) remains low, access is generally considered higher than ownership as radios and televisions are shared among family and communities. According to the 2011 Demographic and Health Survey (DHS), almost half (48%) of all women aged 15-49 do not have any access to mass media, compared to 26% of men. There are marked disparities by area of residence, province and quintile.

#### 5.4.3 Migration and mobile / nomadic populations in relation to local transmission

Mozambique has significant but unknown numbers of mobile populations (e.g. traders and students) and migrants (working either in South African mines, industry or the informal sector, or in the Swaziland sugarcane industry) traveling back and forth to neighbouring countries. In addition to unknown levels of migrants and mobile populations entering Mozambique for commerce from neighbouring countries, there is significant internal commercial migration e.g. from Maputo to Manica, Tete, Nampula and Cabo Delgado provinces.

Nomadic practices occur in some provinces, where populations live and farm in a specific area for a period of two to three years, with the whole community leaving when the land becomes infertile. This impacts health service provision, as these populations also cease to use any health infrastructure built to serve them.

Human population movement can undermine malaria interventions in low and very low transmission areas – the NMCP will be gathering information on the state of mobile populations as part of the E8 and MOSASWA initiatives.

#### 5.4.4 Agriculture practices and irrigation: affecting transmission and vector breeding behaviour

Agriculture, irrigation construction and management, pesticide use, and dam construction may exacerbate malaria transmission. About 70% of the population relies on agriculture, with livelihoods depending on rain-fed subsistence farming and fishing. There is a growing commercial farming sector which, particularly in southern Mozambique, has access to irrigation and it is commonly known the use of insecticides for farming contributes to selection of resistant mosquitoes.

Improved coordination across sectors is required – revitalising the work of the inter-sectoral committee would be valuable, as well as reviewing participation so that, for example, municipalities (responsible for sanitation) are included.

#### 5.4.5 Housing conditions: affecting exposure to mosquitoes, incidence and risk

According to the 2014/15 Household Budget Survey<sup>37</sup>, the average household in Mozambique comprises five people. Most housing is traditional, with walls made from adobe (40%), bricks (26%), sticks compacted with dirt (23%) and reeds (10%). In urban areas nearly 52% of houses are brick whereas adobe houses are more common in rural areas (45%); the general trend is an increase in brick housing. Roofing is predominantly thatch (60% – mostly in the northern and central regions) and corrugated metal (35%); the general trend is towards a reduction in thatch roofing.

#### 5.4.6 Social and cultural aspects: influencing acceptability, health-seeking behaviours and utilisation of preventive and curative malaria services

Acceptance and uptake of community-based and public health services is affected by belief systems and how people interact, identify needs, and make decisions. The role of women in determining household health-related practices is critical to interventions such as LLIN distribution and IPTp, which depend on female participation. As well as frequently being responsible for the domestic environment where malaria vectors may develop, women also care for sick family members – and their own vulnerability to malaria increases when pregnant or malnourished.

Mozambique has great cultural diversity, with beliefs and taboos differing across the country – meaning a range of cultural barriers may have to be overcome in order to successfully embed new practices. About a third of Mozambicans are Christian (mainly Roman Catholic), a quarter Muslim (predominantly in the north) and around half practice animism (often in addition to Christianity). Just over 5% of the population consults a traditional medicine practitioner (TMP) when ill, rather than a health centre (68%) or hospital (22%) – with little difference between urban or rural areas or wealth quintile. In Zambézia, Nampula and Niassa, however, roughly 10% of the population go to TMPs<sup>38</sup>.

#### 5.4.7 Malaria risk factors and determinants

The entire population of Mozambique is considered to be at risk of malaria and most Mozambicans are vulnerable to malaria because of poverty, and insufficient and inadequate health care infrastructures. Specific additional risk groups include pregnant women and children under five, as well as mobile and migrant populations.

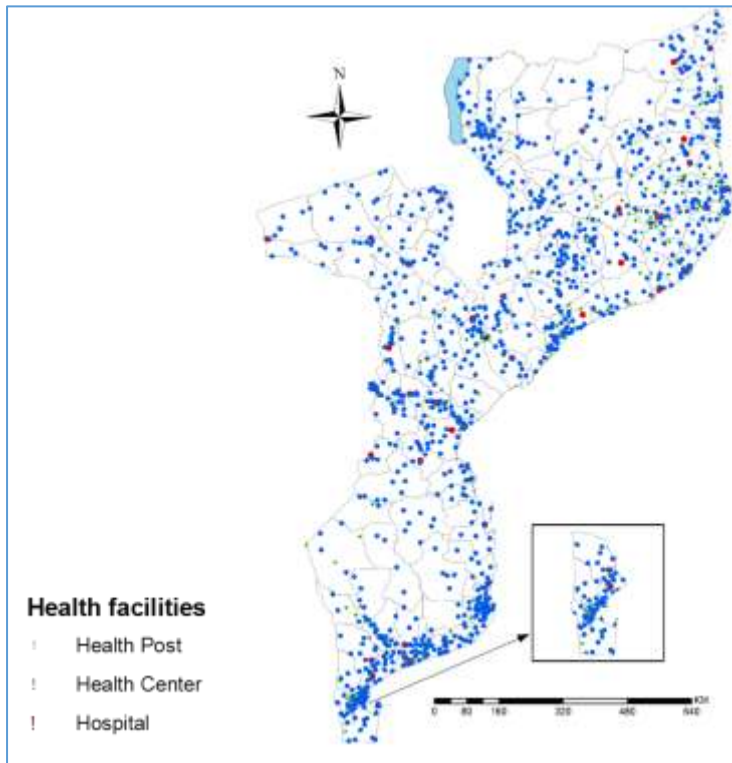
Key risk factors and determinants are related to ecological issues such as altitude, humidity and temperature (especially along the sea coast), extreme weather, the level of access to primary healthcare services and malaria control services at household and health facility level, and overall access to vector control interventions. In addition, risk of malaria is higher in the central and northern regions, where it is more endemic.

### 5.5 Health System Analysis

National Health policy is based on the principles of PHC, equity and better quality of services. The health system includes public, private for-profit and non-profit providers. The public sector, which operates within a decentralised governance system, is the main provider of health services. The National Health Service provides four levels of health care:

- **Primary:** consisting of urban and rural health centres and posts offering PHC including outpatient and maternal and child health services. These represent more than 96% of the total health facilities in the country (1,441, in 2014).
- **Secondary:** the first referral level, which comprises rural, general and district hospitals. There are currently 66 health facilities of this type across all 156 districts, representing 3% of the total number of health facilities.
- **Tertiary:** ten provincial hospitals, representing 63% of the total number of hospitals and 0.7% of the total number of health facilities.
- **Quaternary:** includes two specialised hospitals and four central hospitals (Maputo Central Hospital for the southern region, Beira Central Hospital and Quelimane Central Hospital for the central region, and Nampula Central Hospital for the northern region). This level represents 37% of the total number of hospitals and 0.4% of the total number of health facilities.

Mozambique has just under 49,000 health workers, only 4.3% of which are medical doctors<sup>39</sup>.



Access to health services is limited (68%<sup>40</sup>) and the private sector (hospitals, clinics and the informal private health sector) is used by about 10% of the population. TMPs and APEs play a primary role in the rural areas where access to health facilities is limited and the majority of the population lives. Through its APE programme, MISAU aims to extend its reach to more rural populations. In 2016, there were 3,383 APEs working across the country (APE programme target is to have 7,000 by 2019); their function is split between providing preventative (80%) and curative care (20%). APEs may be the first and, many times, only option for malaria diagnosis and treatment for people living in rural areas, where access to health facilities is difficult or even non-existent. Figure 4-2 shows the distribution of health facilities across the country in 2014.

Figure 5-2: Distribution of public health facilities: hospitals (red), health centres (blue) and health posts (green) in 2014

Source: LINK project

A 2014 service delivery indicator survey<sup>41</sup> found that although almost 80% of facilities met minimum medical equipment requirements, only 43% had non-expired stocks of all essential medicines and only 34% of the facilities met minimum infrastructure requirements (including available clean water, improved sanitation and electricity).

The caseload, similar in rural and urban areas and between levels of facility, averaged over 17 patients per health worker per day. Health facilities in the central region and hospitals in the northern region had the highest caseloads. Health worker absence rates are high (nearly 24%) and health worker competence is weak – just over 58% of five tracer cases<sup>iii</sup> used in the survey were correctly diagnosed and only 37% of clinical guidelines were adhered to.

The survey identified the following bottlenecks to quality service delivery (described as a competent health service provider that is present and has the tools for the job):

- inadequate HR management, influencing staff productivity, effort and accountability;
- diagnostic accuracy and adherence to clinical guidelines was less among lower cadre health workers;
- gaps in inputs e.g. availability of drugs and basic infrastructure.

Investments in healthcare have, however, begun to show a positive impact on maternal and child health in Mozambique, with a decrease in child mortality from 178 deaths per 1,000 live births in 2003 to 97 in 2011<sup>42</sup>.

<sup>iii</sup> Three childhood conditions (malaria with anaemia; diarrhoea with severe dehydration, and pneumonia), and two conditions were adult conditions (pulmonary tuberculosis and diabetes)



## 6 Malaria Situation Analysis

### 6.1 Epidemiology

#### 6.1.1 Malaria parasites

According to the 2007 Malaria Indicator Survey (MIS) *P. falciparum* infections account for over 90% of all recorded malaria cases, with *P. malariae* and *P. ovale* accounting for 9% and 1%, respectively<sup>43</sup>.

IMASIDA 2015 detected 0.2% *P. vivax* prevalence in children 6-59 months.

#### 6.1.2 Malaria vectors

The major malaria vectors in the country (Figure 5-1) are *An. gambiae s.s.* (more prevalent in the centre and north), *An. Arabiensis* (more prevalent in the south and central areas), and *An. funestus s.s.* (widely distributed along the coast; it is the member of *funestus* group found almost exclusively inside human dwellings<sup>44</sup>). *An. Merus*, although rare may play a significant role in malaria transmission in some parts of Mozambique<sup>45</sup>.

#### 6.1.3 Vector behaviour (breeding, resting, and biting)

Available data on vector behaviour indicate *An. gambiae s.s.* and *An. funestus* prefer resting indoors in Maputo province and city, whereas vector preferences varied in Zambézia. *An. funestus* shows a mixed resting behaviour in Zambézia province (indoor – Milange and Maganja da Costa and outdoor – Mocuba and Morrumbala)<sup>46</sup>.

In Inharrime (Inhambane) *An. funestus* is more endophagic and *An. arabiensis* more exophagic, whereas *An. gambiae* (known as an endophagic feeder) feed equally indoors and out. Although results indicate a significant risk of acquiring malaria both indoors and outdoors, the majority of infective bites occurred after nine pm<sup>47</sup>.

With the exception of *An. funestus*, which breeds in large water body collections with some vegetation (swamps, irrigation channels, etc.), other vectors prefer small and temporary water bodies exposed to sun.

#### 6.1.4 The insecticide resistance situation

In 2016, the NMCP performed insecticide resistance monitoring in 29 sentinel sites, vector density in 26 and WHO bioassays for residual efficacy in six sites. Insecticides tested were: dichloro-diphenyl-trichloroethane (DDT – 4%), bendiocarb (0.1%), lambdacyhalothrin (0.05%), deltamethrin (0.05%), fenitrothion (1%) and pirimiphos-methyl (0.25%).

Generally, the country has recorded insecticide resistance to pyrethroids (deltamethrin and lambdacyhalothrin), carbamates (bendiocarb) and organochlorines (DDT). All vectors remain susceptible to organophosphates (pirimiphos methyl and fenitrothion). Sentinel sites in Manica, Sofala, Gaza, Montepuez, Moamba and Matutuine demonstrated susceptibility to all insecticides tested, regardless of species.

Data from 2016 indicate an increase in the geographical spread of pyrethroid resistance (both lambdacyhalothrin and deltamethrin) compared to other classes (carbamates, organochlorines and organophosphates). *An. gambiae s.l.* also showed resistance to DDT in Nampula and Tete cities.

The maps below show *An. gambiae s.l.* (Figure 5-2) and *An. funestus s.l.* (Figure 5-3) susceptibility to the insecticides used in Mozambique for IRS and LLIN in 2016<sup>48</sup>.

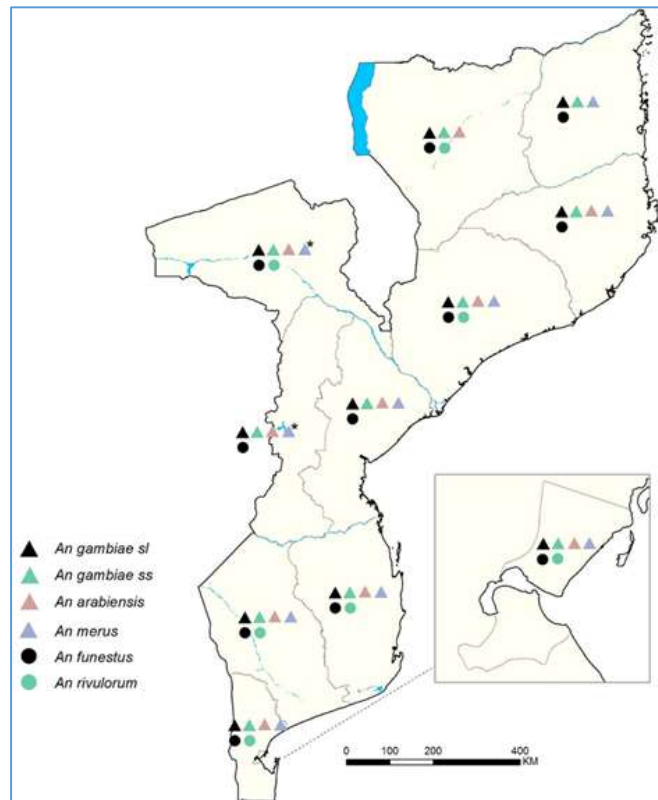


Figure 6-1: Reported vector species by province<sup>i</sup>

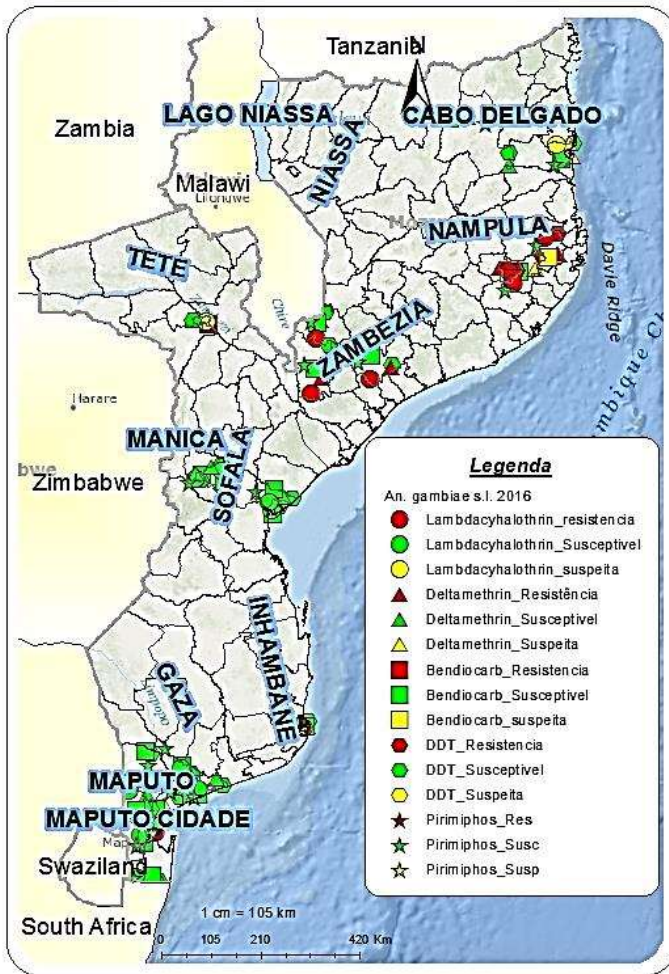


Figure 6-2: Insecticide resistance status for *An. gambiae*: 2016

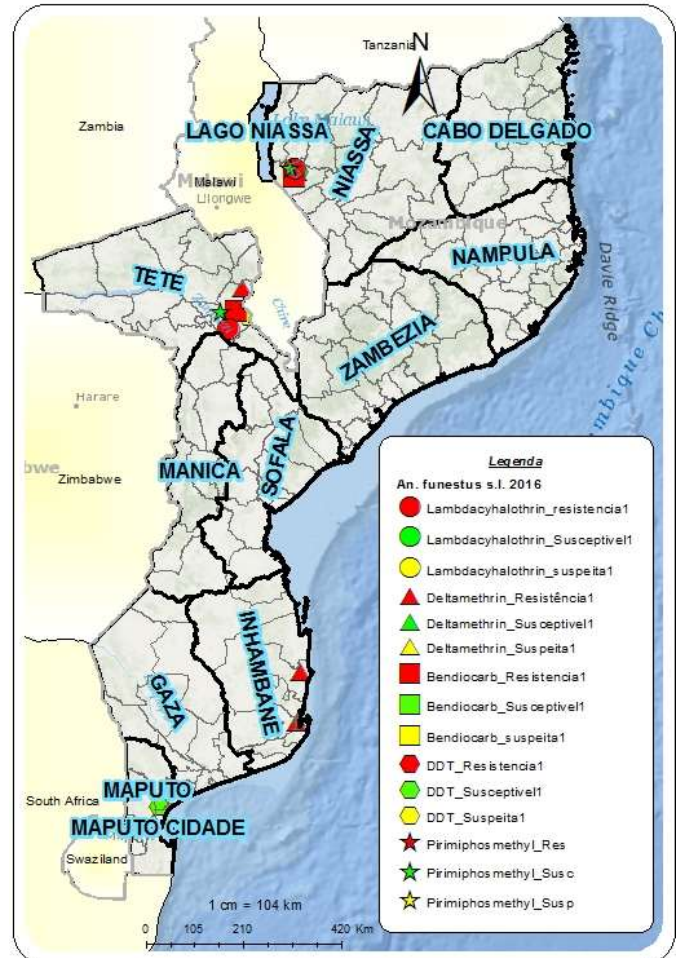


Figure 6-3 Insecticide resistance status for *An. funestus*: 2016

## 6.2 Morbidity and Mortality

### 6.2.1 Malaria Prevalence and Burden

Malaria remains the leading public health problem in Mozambique. Recent data from IMASIDA 2015 showed a national average of 40% malaria parasitaemia prevalence among children under the age of five years<sup>49</sup>. This shows reduction compared to the MIS 2007 (52%) but is slightly higher than the DHS 2011 of 38%<sup>iv</sup> (Figure 5-4).

However, malaria prevalence varies across the country: prevalence is higher in the northern region (ranging from 29% in Cabo Delgado to 66% in Nampula). In the central region prevalence ranges from 26% in Manica to 68% in Zambézia, while in the southern region, prevalence ranges from 2% in Maputo city to 23% in Inhambane.

Inequities in malaria parasitaemia are manifest according to place of residence, wealth quintile and mother’s education level, with a much higher burden found in children from rural areas, the poorest households and amongst those whose mothers had no education. Furthermore, the greatest declines observed in malaria parasitaemia from 2007 to 2015 were amongst children from urban areas, from the least poor households and among children whose mothers had the highest level of education.

<sup>iv</sup> Note: the MIS 2007, DHS 2011 and IMASIDA 2015 all took place over the period September to October

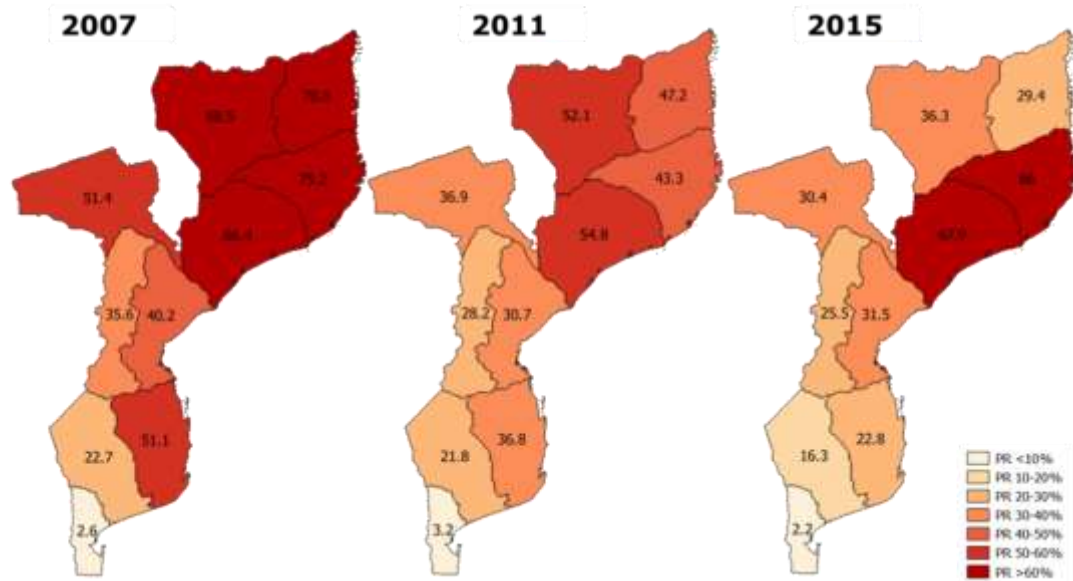


Figure 6-4: Trends in malaria prevalence (RDT) among children under 5 years in 2007, 2011 and 2015

Source: Population-based surveys: MIS 2007, DHS 2011, IMASIDA 2015

The incidence of malaria in Mozambique is also heterogeneous across the provinces and their respective districts. In general, the burden of malaria in the districts has shown an increasing trend in the last three years (Figure 5-5). Among other factors, the reported increase in the number of malaria cases may result from improvements in data recording and reporting over the last three years, the expansion of community level (APE programme) diagnosis and treatment and the fact integrated vector control interventions have yet to be sufficiently broadly implemented within each province to result in measurable impact.

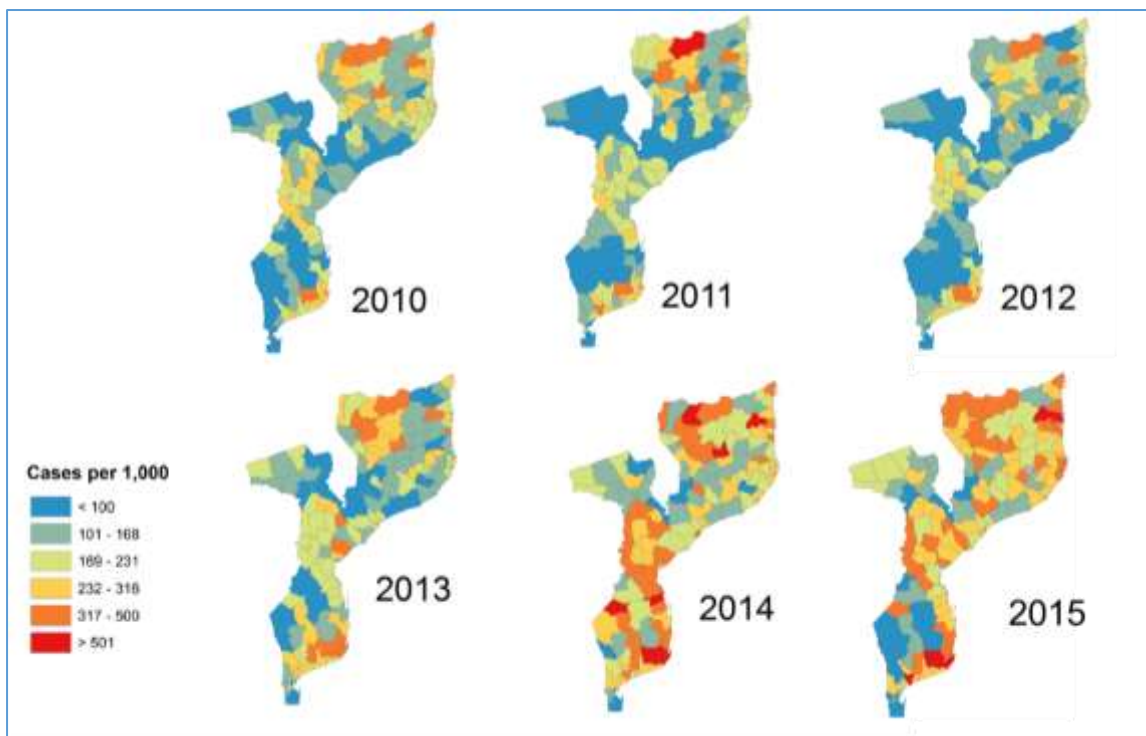


Figure 6-5: Malaria incidence per 1000 population, 2010-2015

Source: Weekly Epidemiological Bulletin (BES), MISAU

The malaria burden in Mozambique (using 2015 baseline data) is substantial, accounting for nearly 45% of outpatient consultations, approximately 56% of paediatric inpatient admissions, and nearly 29% of hospital deaths<sup>50</sup>.

Figure 5-6 below compares the proportion of malaria cases in children under five years among the total malaria cases in the country in 2015 and 2016. With the exception of Inhambane, in the southern provinces, the burden of malaria is higher in adults. In Inhambane, the burden of malaria in under-fives averages 30% compared with mean of 51% in the northern and southern provinces including Inhambane.

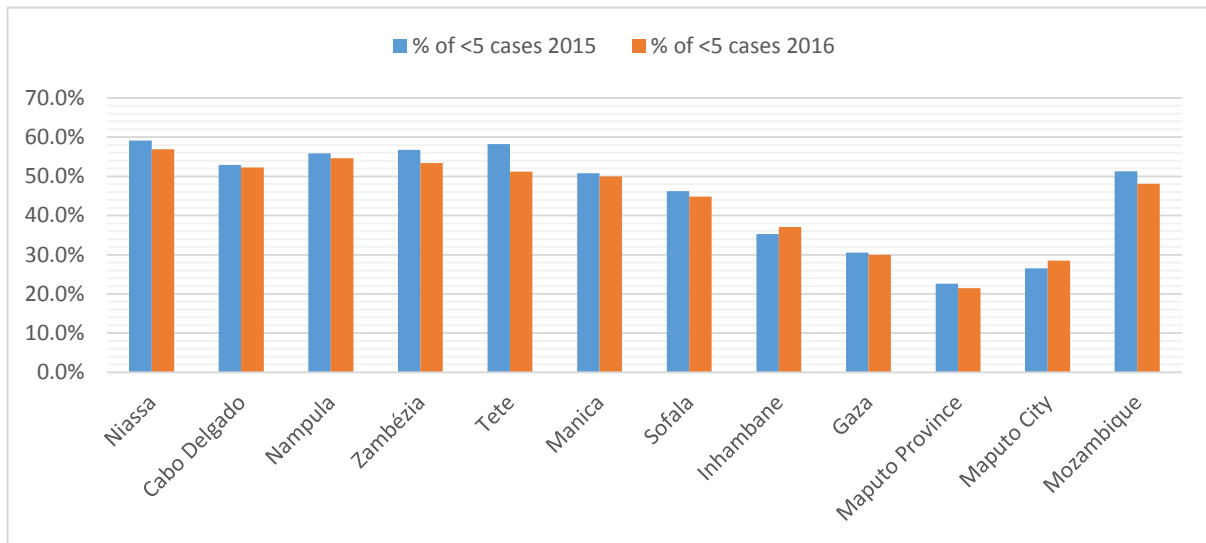


Figure 6-6: Proportion of malaria cases in under-fives, by province, in 2015 and 2016

Source: BES 2012 to 2016

In terms of severe anaemia, between 2011 and 2015, there was a reduction among children aged 6-59 months. In 2011, 69% had anaemia and 4% severe anaemia, whereas in 2015, 27% of children had anaemia and 3% severe anaemia.

There are notable inequities observed in severe anaemia prevalence in children 6-59 months across place of residence, wealth quintile and mother’s education level. In 2015, 74% of children whose mother was from the poorest households had anaemia, compared to 50% from the wealthiest. Children from rural areas, the poorest households and those whose mother had no or only primary level education experienced much higher prevalence of severe anaemia than those from urban areas, the least poor households and those whose mother had a secondary or higher education level<sup>51</sup>. In 2015, Zambézia (77%) and Cabo Delgado (73%) presented the highest levels of anaemia compared to Maputo city (50%) and province (45%).

Overall, malaria parasitaemia declined significantly from 58% in 2007 to 38% in 2011, however increased again to 40% in 2015 in high malaria risk zones – there were significant increases in Nampula (52%), Maputo city (47%), Zambézia (24%) and Sofala (3%) and declines in Inhambane and Cabo Delgado (both 38%), Niassa (30%), Gaza (25%), Tete (18%), Maputo province (15%) and Manica (11%). Overall, parasitaemia increased by 5% due to increases in Zambezia and Nampula; prevalence actually decreased in seven provinces.

Progress with reducing the burden of malaria is not expected to be homogeneous and it will become increasingly important to understand malaria risk with greater spatial resolution. The NMCP and partners are therefore working towards developing risk maps<sup>v</sup> to provide evidence for operational planning to target resources more strategically.

### 6.2.2 Incidence rate

In 2015, incidence was 249 cases per 1,000 population, however, incidence rates ranged between 0.01 and 500 at sub-district level, with higher rates concentrated in the northern provinces and substantially lower rates observed in the south. Incidence in 2016 was 286 cases per 1,000 population – a 15% increase. Incidence from 2010 to 2016 is shown in Figure 5-7 below, with trends considered statistically significant.

<sup>v</sup> Malaria risk maps are based on the relationships between epidemiological data collected by a surveillance system and risk factors associated with malaria (e.g. vector control measures, demographic, social, and ecological factors) from a variety of data sources.

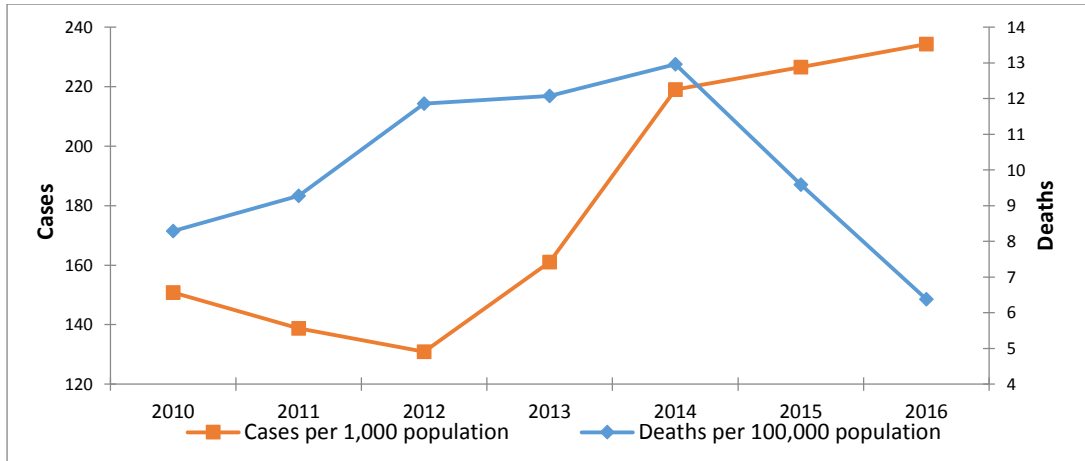


Figure 6-7: Trends in incidence of malaria per 1000 population and deaths from malaria per 100,000 population from 2010 to 2016

Source: 2016 NMCP annual report

In the last three years, 20 districts have had incidence of over 391 cases per 1,000 habitants: Niassa (three districts), Cabo-Delgado (four districts), Nampula (two districts), Sofala (one district), Inhambane (seven districts), and Gaza (three districts). The majority of districts in Niassa, Cabo Delgado, Nampula, Zambézia, Sofala and Manica provinces presented incidence between 186 and 390 cases per 1,000 habitants.

In 2015, the number of APEs rose from 2,747 (2014) to 3,109, thereby improving access to diagnosis and treatment at community level – which may have contributed to the 76% rise in cases reported in communities over the year and may have contributed to the 10% increase in total cases reported.

From 2005 to 2012 there was a declining trend in malaria cases; this may be attributed to the introduction of RDTs in 2005, which led to a change to the definition of a malaria case from clinical to confirmed in 2009, as well as to the scale up of malaria prevention methods. In 2012, about 12,700 malaria cases per 100,000 population were reported – the lowest number since 2000. However, since 2012, annual incidence has been rising again (Figure 5-7).

Between 2014 and 2015 there was a 6% rise in the number of cases, however the number of deaths has declined by 24% – reversing the trend of rising deaths since 2010. Over the same period, there was a decline in the number of cases in Manica, Sofala, Inhambane, Gaza, Maputo province and Maputo city – with Maputo province registering a 10% reduction. However, there was an increase in cases in Nampula, Zambézia, Tete, Cabo Delgado and Niassa; the increase was most significant in Nampula (23%) and Zambézia (17%).

The proportion of confirmed malaria deaths among all deaths occurring in hospitals, health centres and posts decreased between 2003 and 2016 in Mozambique (Figure 5-8). In 2012, 8.8% of all deaths were confirmed malaria while by 2016 this had decreased to 3.8%.

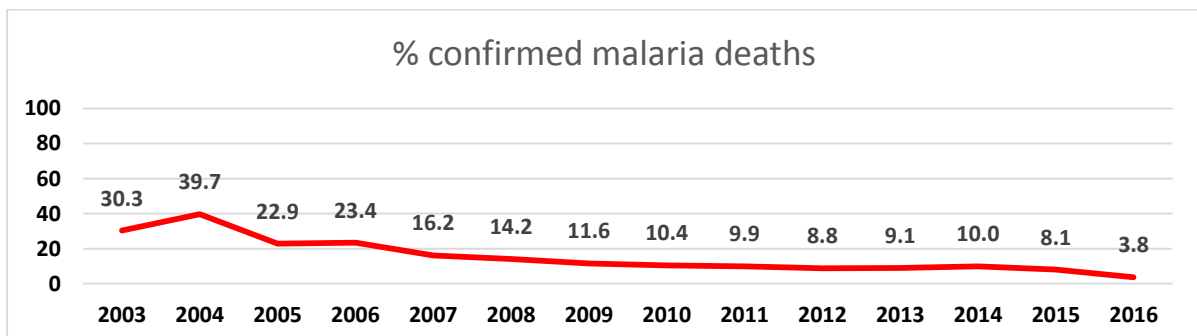


Figure 6-8: Proportion of confirmed malaria deaths (all ages) out of all hospital, health centre and health post deaths, 2003 to 2016

Source: Confirmed malaria deaths from the NMCP’s Routine Inpatient D03 (health centres and health posts) and D04 (hospitals) data

### 6.2.3 Malaria as proportion of all outpatient and inpatient cases

Figure 5-10 shows that between 2003 and 2006, the proportion of confirmed malaria discharges from hospitals, health centres and posts fluctuated around 38%. In 2013, the proportion of confirmed malaria discharges reached the lowest recorded at 13%; by 2016 this value had increased to 20%.

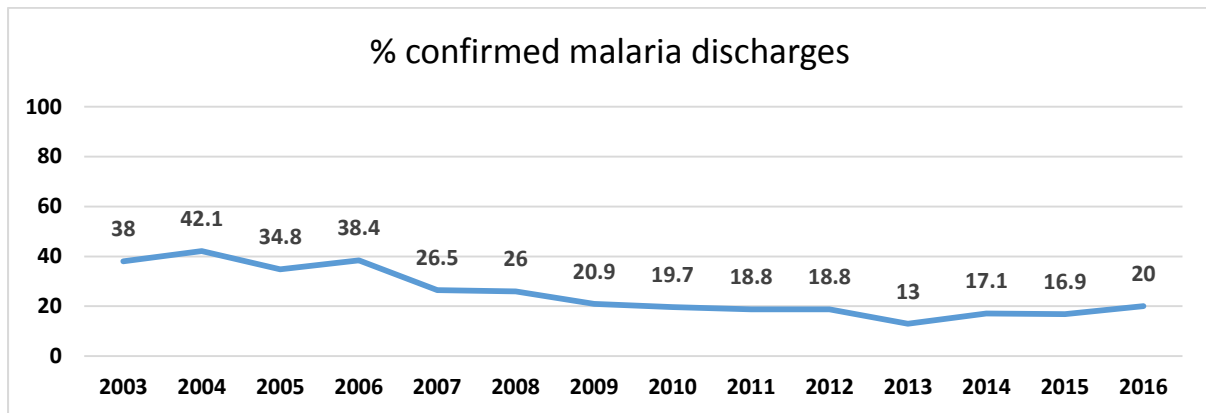


Figure 6-9: Proportion of confirmed malaria discharges (all ages) out of all hospital, health centre and health post discharges, 2003 to 2016

Source: 2016 NMCP annual report

### 6.2.4 Malaria outbreaks / epidemics

Mozambique is susceptible to floods and cyclones which have often led to malaria emergencies and humanitarian crises with reduced access to malaria services and some serious malaria outbreaks. The NMCP intends to capitalise on an existing MISAU agreement for accessing meteorological information with the National Institute of Meteorology in order to better predict and plan for malaria outbreaks and estimate expected cases.

Figure 5-10, shows districts defined as epidemic-prone – defined here as districts most likely to have weekly case totals that exceeded the mean plus twice the standard deviation of weekly cases from 2012 through 2016. This definition was chosen over others used by WHO due to the overall increase in cases nationally over the past several years.

Districts were considered to have crossed this threshold if any weekly case count from 2012 through March 2017 exceeded the threshold. The number of weeks that each district exceeded their epidemic threshold was then summed, and districts that exceeded their epidemic threshold in a given week for the highest number of weeks were considered to be epidemic-prone.

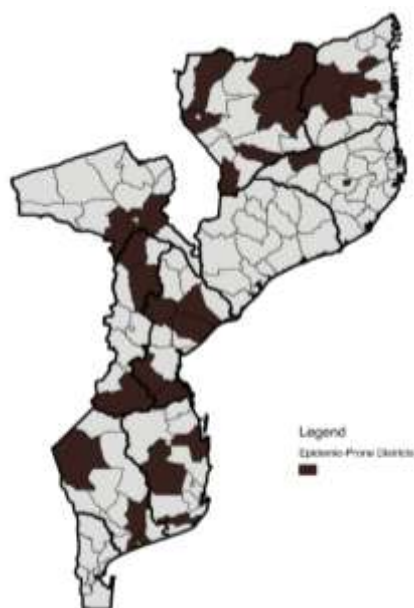


Figure 6-10: Epidemic prone districts

Source: CHAI

### 6.3 Stratification of Malaria Transmission

The malaria situation in Mozambique is heterogeneous, and accurate malaria stratification is essential for determining the most feasible, impactful, and cost effective strategies, approaches and interventions. It is not only critical to choose what intervention packages to use in each stratum, but when to undertake these activities. The phasing of malaria elimination will be based on the stratification and the operational capacity of the Programme to transition into elimination.

At present, the strata have been identified utilising quantitative characteristics of malaria transmission. The values for categorising the strata are malaria prevalence and incidence in cases reported per 1,000 persons. Combining the characteristics defined above, and taking into account the operational feasibility<sup>vi</sup> of rolling out targeted interventions, specific districts were placed into four strata (Table 5-1):

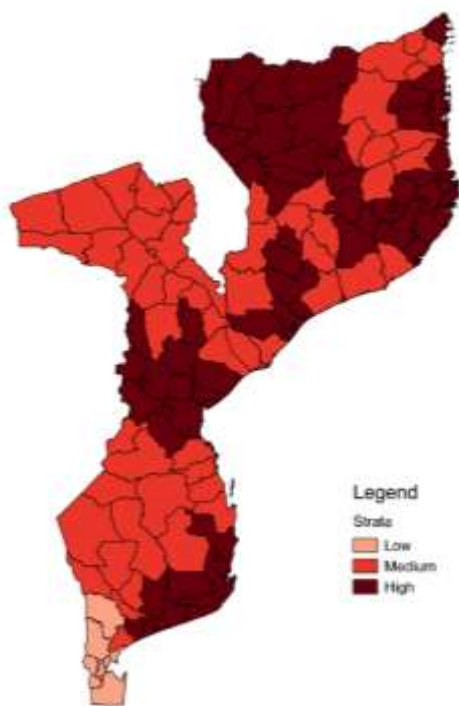
Table 6-1: Epidemiological criteria used to define operational strata for the National Strategic Plan

Strata	Criteria
Very Low Transmission	<ul style="list-style-type: none"> <li>○ Province: <i>P. falciparum</i> or <i>P. vivax</i> prevalence rate (Pf/v PR) greater than 0 but lower than 1%</li> <li>○ District: API &lt;100 cases per 1,000 population</li> <li>○ Chosen because of operational feasibility due to being part of the same province / bordering districts with similar strata</li> </ul>
Low Transmission	<ul style="list-style-type: none"> <li>○ Province: Pf/v PR of about 1%–10%</li> <li>○ District: API 100–250 cases per 1,000 population</li> <li>○ Chosen because of operational feasibility due to being part of the same province / bordering districts with similar strata</li> </ul>
Moderate Transmission	<ul style="list-style-type: none"> <li>○ Province: Pf/v PR of 10%–35%</li> <li>○ District: API 250–450 cases per 1,000 population</li> <li>○ Chosen because of operational feasibility due to being part of the same province / bordering districts with similar strata</li> </ul>
High Transmission	<ul style="list-style-type: none"> <li>○ Province: Pf/v PR of around 35% or higher</li> <li>○ District: API &gt; 450 cases per 1,000 population</li> <li>○ Chosen because of operational feasibility due to being part of the same province / bordering districts with similar strata</li> </ul>

<sup>vi</sup> Operational feasibility:

- Be part of the same province / bordering districts with similar strata
- Have no more than two strata per province, always taking the highest of the two

Figure 5-11 below shows current stratification of districts in Mozambique (2017).



Strata	Number of districts per strata (2017)
Very Low	0
Low	7
Moderate	59
High	75

Figure 6-11 Stratification of districts in Mozambique, as of 2017, based on a combination of prevalence, incidence, and operational feasibility

Source: Clinton Health Access Initiative (CHAI)

### 6.4 Phasing of Elimination Strategy Implementation

Based on the results of the malaria stratification, the NMCP will determine the appropriate package of interventions to apply to different areas of the country. These choices are based on the epidemiological, ecological and social features of each area, and will be reassessed every two to three years.

This MSP adopted a phased continuum approach. In order to reach the bold goals of malaria elimination by 2020 in Maputo Province and country-wide reduction of morbidity by 40% by 2022, the phasing presented in the MSP is ambitious. The malaria activities to accelerate to elimination will be brought to additional areas as moderate transmission areas and high transmission areas reduce their burden to make them operationally feasible.

Table 6-2: The unique intervention strategies by stratum

Strata	# of districts targeted					
	2017	2018	2019	2020	2021	2022
Very Low Transmission	0	0	5	8	8	8
Low Transmission	7	7	18	24	31	35
Moderate Transmission	59	76	91	88	88	87
High Transmission	75	58	27	21	14	11



Table 6-3: Intervention strategies by strata

Strata	Objective 2 – Prevention	Objective 3 – Case Management	Objective 4 - SBCC	Objective 6 – Surveillance
All transmission strata	<ul style="list-style-type: none"> <li>• Mass and continuous LLIN distribution</li> <li>• Environmental management of vector breeding sites / larviciding where appropriate</li> <li>• IRS in specific areas as defined by the integrated vector management (IVM) strategy</li> <li>• IPT for pregnant women</li> <li>• Waste management</li> <li>• Entomological surveillance</li> </ul>	<ul style="list-style-type: none"> <li>• Quality services in public and private health facilities and APes, and collaboration with TMPs</li> <li>• Quality assured diagnosis with RDT and microscopy for all suspected cases</li> <li>• Monitoring resistance and stock for case management commodities</li> <li>• Pharmacovigilance</li> <li>• Treatment with effective artemisinin-based combination therapy (ACT), artesunate for severe cases,</li> <li>• Training and supervision of healthcare staff</li> <li>• Periodic treatment and mortality audits</li> </ul>	<ul style="list-style-type: none"> <li>• Demand creation for seeking treatment in communities and health centres through community / religious leaders, volunteers, APes and TMPs</li> <li>• Implementation of SBCC strategies that promote desired malaria prevention behaviours and norms (e.g. model families and community dialogues)</li> <li>• Celebration of malaria commemorative events</li> <li>• Implementation of strategies aligned with the habits and lifestyles of the population in each region</li> <li>• Increased dissemination of activities and achievements</li> </ul>	<ul style="list-style-type: none"> <li>• All data entered and managed in (integrated malaria information storage system) IMISS</li> <li>• Routine collection and reporting of quality, complete and timely data in DHIS2</li> <li>• Data quality audits at all levels</li> <li>• Outbreak preparedness and response</li> <li>• Training and supervision of staff at all levels on SM&amp;E, IMISS and DHIS2</li> <li>• OR to support decision-making</li> </ul>
Strata	Moderate Transmission	Low Transmission	Very Low Transmission	
Objectives	<b>Objective 6 – Surveillance</b> <ul style="list-style-type: none"> <li>• Strengthening the malaria surveillance system</li> <li>• Malaria stratification</li> </ul>	<b>Objective 5 – Elimination</b> <ul style="list-style-type: none"> <li>• Case-based reporting from public health facilities</li> <li>• Entomological surveillance strengthening</li> <li>• Continual analysis to identify and mitigate drivers of transmission, and support evidence based response</li> </ul>	<b>Objective 2 – Prevention</b> <ul style="list-style-type: none"> <li>• IRS in localised areas</li> <li>• Distribution of LLIN in localised areas</li> <li>• Mapping of breeding sites</li> </ul> <b>Objective 5 – Elimination</b> <ul style="list-style-type: none"> <li>• Case-based reporting from public health facilities and APes</li> <li>• Case investigation and immediate reporting at public health facilities and APes</li> <li>• Foci investigation and response</li> <li>• Advocacy and routine information sharing</li> <li>• Continual analysis to identify and mitigate drivers of transmission, and support evidence based response</li> <li>• Training and supervision of healthcare staff and surveillance teams</li> </ul>	



## 7 Strategic Plan Framework 2017-2022

### 7.1 Vision of the Programme

#### A malaria-free Mozambique

One day Mozambique will be free from malaria – achieving our vision, we will contribute to a healthier more productive society and the development of the country.

### 7.2 Mission of the Programme

#### Lead and coordinate the implementation of effective interventions to reduce morbidity and mortality due to malaria in Mozambique

The NMCP's mission is to effectively coordinate, develop, plan and monitor the implementation of evidence-based strategies and interventions that will reduce the burden of malaria in Mozambique.

### 7.3 Seven Guiding Principles

The NMCP and partners, in developing this MSP, agreed on seven principles to guide the work of the programme and its partners. These values are aligned with the PESS and the MISAU PHC reforms:

#### 1. Universal coverage

- Achieving **universal coverage** so all Mozambicans can access quality interventions to prevent, diagnose and treat malaria that will improve their health without necessitating out-of-pocket payments that could expose them to financial hardship

#### 2. Equity

- Promoting **equity** – so everyone who needs health services can access them, without economic, social or other discrimination.

#### 3. Interventions based on evidence

- Ensuring all malaria **interventions are based on evidence**, striving for high quality and technical excellence.

#### 4. Inter and intra-sectoral approach

- Adopting an **inter- and intra-sectoral** approach, using advocacy and planning, to mobilise other sectors of government and society, including cross-border and regional collaborations, to share responsibility for health improvement.

#### 5. Decentralisation

- Supporting **decentralisation** through strengthening the representation and capability of those responsible for planning, implementing and reporting on malaria interventions at community, health facility, district and provincial level.

#### 6. Health systems strengthening

- Maximising the potential specific and referred benefits of malaria resources for **health systems strengthening**, essential to successful delivery of malaria interventions.

#### 7. Approaches according to the regional epidemiology and entomology

- Tailoring **approaches according to the regional epidemiology and entomology** to improve effectiveness and efficiency of resource allocation and effort, and using this information to inform decision-making.

## 7.4 Goals

The following goals and objectives will drive the activities of Mozambique’s fight against malaria over the period 2017 – 2022:

**GOALS**

1. By 2022, reduce malaria morbidity at national level by at least 40% compared to levels observed in 2015
2. By 2022, reduce malaria inpatient mortality at national level by at least 40% compared to levels observed in 2015

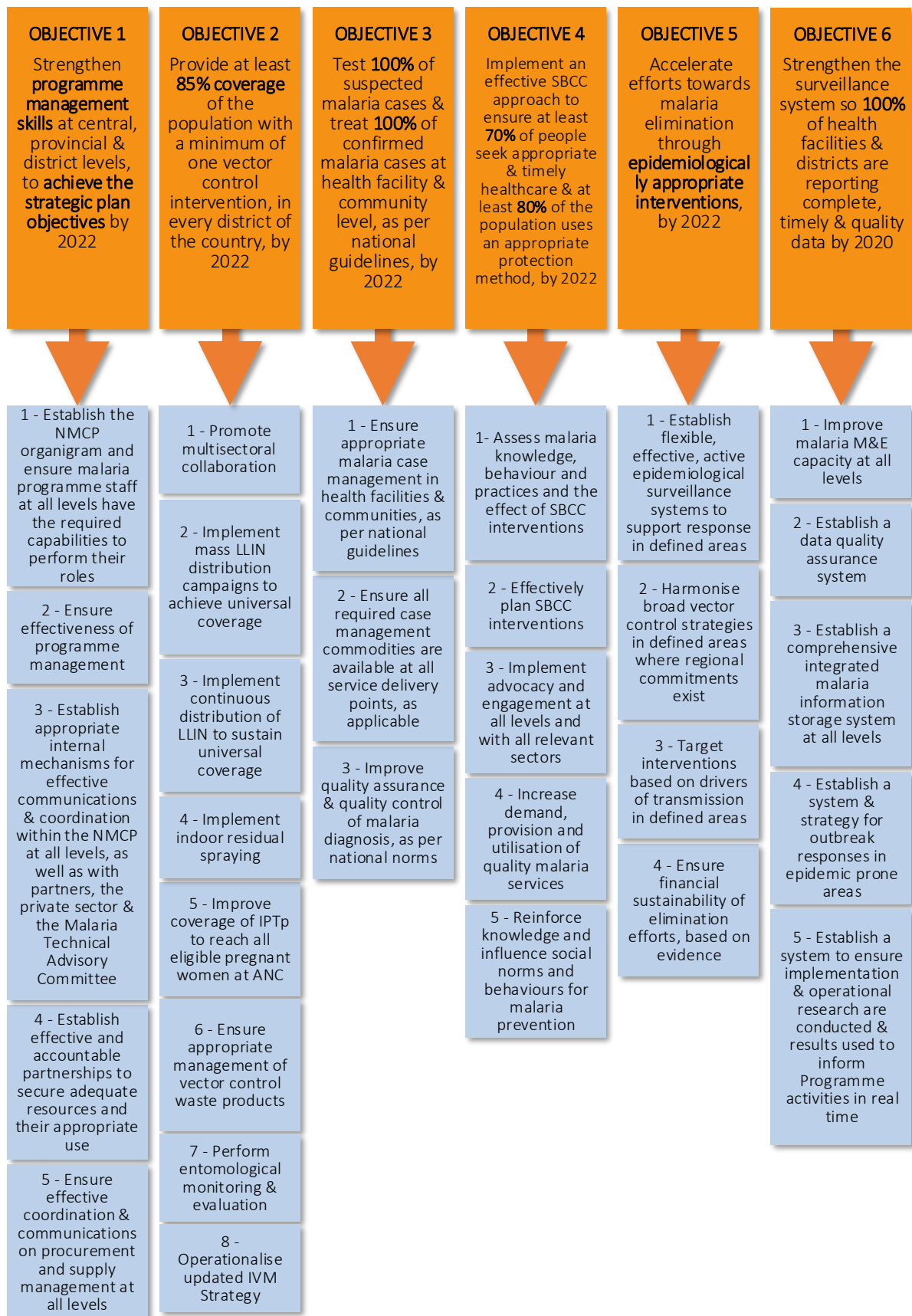
These goals are aligned with the PESS and GTS. Table 7-1 presents the impact and outcome indicators and targets against which progress to achieve goals will be measured.

*Table 7-1: Goal level impact and outcome indicators and targets, including baseline*

Indicator	Indicator Type		Baseline (2015)	Target (2022)
Inpatient malaria deaths (per 100,000)	Impact	HMIS <sup>vii</sup>	10	2.98
Percentage of inpatient deaths due to malaria	Impact	HMIS	10	1.99
Inpatient malaria cases (per 10,000)	Impact	HMIS	33	19.93
Percentage of inpatient cases with a discharge diagnosis of malaria	Impact	HMIS	23	9.29
Malaria prevalence in children under 5	Impact	Community survey	40.2	24.12
Proportion of malaria OPD	Outcome	HMIS	17	9.94
Incidence of malaria (confirmed and clinical cases per 1,000)	Outcome	HMIS	249	149.98

<sup>vii</sup> health management information system

## 7.5 Overview of Objectives and Strategies / Interventions





## 8 Objective 1 – Programme Management:

**Strengthen programme management skills at central, provincial & district levels, to achieve the strategic plan objectives by 2022.**

### 8.1 Objective 1 Approach: strengthening malaria programme management

The NMCP requires strong programme management skills at all levels if it is to effectively and efficiently fulfil its mission and mandate to plan, coordinate, monitor, mobilise resources and develop staff for malaria control. The recent MPR and MSP development discussions revealed a number of challenges related to overall management.

To address these challenges the NMCP approach is to focus on reviewing and establishing its organisational structure and operational framework, improving programme and financial management skills, establishing effective, accountable partnerships, and mobilising resources. In addition to mobilising resources for overall programme implementation, NMCP resource mobilisation will include securing financing to fill HR gaps, fund capability development at all levels, as well as provide programme staff with the necessary tools to perform effectively.

Effective stakeholder management, internal and external communications and coordination structures will build and consolidate constructive relations, technical discussions and collaboration with national and international malaria partners, as well as ensure strong relations and technical inputs to the GoM's multisectoral collaboration currently being formalised to address malaria determinants and improve knowledge of malaria prevention.

The NMCP will continue to build upon recent improvements in procurement and supply management (PSM) by identifying coordination requirements, enacting appropriate responses and ensuring the required skills, tools and mechanisms are established within the programme.

#### 8.1.1 Establish the NMCP organigram and ensure malaria programme staff at all levels have the required capabilities to perform their roles

To be in a position to effectively and efficiently implement this MSP 2017–2022, the NMCP must ensure all positions are filled and staff are provided with the necessary skills and tools to do their job. The NMCP will update its internal needs assessment<sup>52</sup> (last performed in 2015 at central level) and extend it to include staff at provincial level, identifying requirements and gaps, whilst also ensuring alignment with MISAU reforms. The NMCP organigram will be developed on the basis of skills and experience required to achieve its mission; detailed job descriptions will be prepared for each position prior to reviewing current staff and identifying and engaging remaining HR requirements.

The NMCP will work closely with its partners to identify, develop and implement strategies to meet its requirements.

#### 8.1.2 Ensure effectiveness of programme management

Effective programme management provides the foundations for implementation of all malaria interventions. A procedures manual will embed procedures at central level. Through integrated planning and budgeting, the NMCP will have a clear view of what is happening and ensure the MSP is being followed – it will also ensure activities observe the overall DNSP strategy and support MISAU PHC reforms. Detailed annual plans will allow regular monitoring of implementation at central level and allow corrective action based on information and evidence.

Efforts to ensure NMCP team engagement and performance will include analysis of different options that can be pursued, as well as role definition, identification of individual support / strengthening needs and development of appropriate responses.



Opportunities to assess programme performance and risk, such as technical working groups (TWG), monthly staff meetings, annual reviews and periodic mid-term and end MPRs, will be used.

### 8.1.3 Establish appropriate internal mechanisms for effective communications and coordination within the NMCP at all levels, as well as with partners, the private sector and the Malaria Technical Advisory Committee

To strengthen and bring clarity to coordination and communications at all levels, ensuring it is appropriate and timely, the NMCP will establish a coordination mechanism, supported by stakeholder management and communications plans. The NMCP will provide support, as requested by the DNSP, to the multisectoral collaboration initiative which aims to address the main constraints to malaria control (SBCC and environmental management).

The functioning of TWGs will be reviewed to ensure each has a terms of reference, roles are clear, meeting purposes are clearly defined, meetings are held regularly with all relevant stakeholders participating, and TWG productivity is regularly reviewed to improve performance.

Opportunities for engaging with initial and continuous training institutions will be identified and pursued with the aim of embedding malaria modules within courses so trainees have already significant understanding of core areas prior to placement to improve programme efficiency. Under this strategy, efforts will be made to establish optimal coordination with broader health-related interventions, and specific effort will be made for greater collaboration with the APE programme e.g. joint planning, supervision and data analysis as well as to promote opportunities for APE allocation where they may have the greatest impact on malaria burden. The NMCP will work with the National Directorate of Medical Assistance to capitalise on existing coordination with the private sector to ensure observance of national malaria case management guidelines is on the agenda.

### 8.1.4 Establish effective and accountable partnerships to secure adequate resources and their appropriate use

The malaria programme has been operating without sufficient funds to implement its MSP since 2012. In order to address this and be in a position to meet the MSP 2017–2022 goals and objectives – particularly in relation to prioritised areas of scale-up e.g. HR, entomology, SM&E and SBCC – it will be essential to mobilise additional resources based on clearly defined gaps.

A systematised approach to advocacy and fundraising will be developed, with strategies, approaches and tools developed to take best advantage of opportunities to mobilise resources and support and develop strategic partnerships. The success of efforts will be monitored, and appropriate mechanisms developed to ensure good management of and accountability for financial support.

### 8.1.5 Ensure effective coordination and communications on procurement and supply management at all levels

PSM (including logistics) remains a challenge and is key to successful implementation of each programmatic area; in addition, multiple partners are involved in PSM e.g. PMI, UNICEF, the Global Fund, requiring clear communications and efficient coordination.

The NMCP will continue efforts to strengthen PSM at all levels – this will include clearly identifying coordination and communications needs with the DPS, Central Medicine and Medical Equipment Stores (CMAM) and the Laboratory Department in order to then agree and establish effective responses, including for issue resolution. Tools will be developed to ensure it is easy to access up-to-date information on stock at all levels to allow monitoring of activities and status. Joint efforts with CMAM will be engaged in to discuss and analyse LMIS data and to develop responses as necessary. Additionally, the significant storage requirements of vector control commodities will be addressed through appropriate warehousing.

## 9 Objective 2 – Prevention

**Provide at least 85% coverage of the population with a minimum of one vector control intervention, in every district of the country, by 2022.**

### 9.1 Objective 2 Approach: Integrated malaria vector management and prevention of malaria in pregnancy

The strategic approach to achieving this objective is IVM – i.e. the targeted use of different malaria vector control methods, either separately or together, in order to achieve sustainable, ecologically-sound vector control efficiently and cost-effectively. The NMCP's IVM Strategy provides a single strategic framework for vector control in Mozambique.

Guided by the IVM Strategy, this objective will be achieved through a combination of strategies: distribution of LLIN, IRS, environmental management and entomological M&E to determine the choice of vector control measure/s.

Universal coverage with LLIN will be achieved through periodic mass distribution campaigns and vulnerable groups will receive targeted distribution through continuous mechanisms. IRS will be used to manage insecticide resistance and environmental management will ensure appropriate disposal of solid and liquid waste as well as preventing / eliminating standing water. To support timely, evidence-based decision-making, entomological effort will be strengthened.

In order to reduce malaria incidence, vector control efforts will be complemented through improved coverage of IPTp to prevent malaria in pregnancy.

#### 9.1.1 Promote multisectoral collaboration

Within the framework of the multisectoral collaboration against malaria and as guided by the NMCP, prevention activities will aim to complement the activities implemented by other sectors on malaria transmission determinants. The NMCP is responsible for providing technical support and ensuring all activities implemented are aligned with the MSP.

The contribution other sectors make to malaria prevention essentially relates to environmental manipulation or modification for vector control, which includes preventing / eliminating stagnant waters. The focus will be on working with the agriculture and fishing sectors in relation to irrigation and the use of insecticides, and with the construction and mining sectors in relation to responsible excavation to avoid creating breeding sites for mosquito larvae.

To improve understanding of the disease, a partnership with the Ministry of Education and Human Development will be formed. All opportunities to involve students and teachers and improve their knowledge of the disease will be explored so this target group can adopt, implement and disseminate malaria prevention measures.

#### 9.1.2 Implement mass LLIN distribution campaigns to achieve universal coverage

The primary vector control strategy for Mozambique is to achieve universal coverage with LLINs for all populations at risk of malaria (i.e. the entire country).

A national mass LLIN distribution universal coverage campaign, initiated in 2016, will be concluded in 2017 with the aim of providing equitable protection to everyone and to reduce transmission to the community as a whole through the 'community protective effect', which also protects those without a net by reducing the vector



population. As studies have shown the average effective life of a net is approximately three years, the next universal coverage campaign is planned for 2020.

Campaigns are planned and implemented with support from malaria partners and with Global Fund and PMI funding; the intention is to provide one LLIN to every two people (using the recommended overall ratio of one LLIN for every 1.8 people in the target population in order to adjust for households with an odd number of members). A key priority is to establish systems to monitor LLIN use, coverage, rate of loss and durability.

### 9.1.3 Implement continuous distribution of LLIN to sustain universal coverage

The strategic approach to sustaining the levels of coverage (85%) achieved through mass distributions is to implement sustained continuous distribution systems. Currently Mozambique implements routine distributions to pregnant women during ANC. Health personnel implement these distributions, requiring approximately 1.8 million LLIN annually, increasing to an estimated 10.8 million by 2022.

The NMCP will review and seek to address the system-related delivery and storage difficulties affecting timely and efficient ANC LLIN distributions, as well as to ensure communications activities are based on evidence to maximise uptake and appropriate use of LLIN.

In order to avoid any gaps in household ownership and use of LLIN between mass distribution campaigns due to net attrition, the NMCP will investigate and assess the feasibility of options for additional continuous distribution mechanisms, supplementary to ANC. To this end, the NMCP is going to initiate a pilot distribution through schools from 2017 to 2019.

### 9.1.4 Implement indoor residual spraying

Consistent with the IVM strategic decision to utilise LLINs as the primary vector control mechanism, IRS implementation has been revised to become a critical tool in controlling the malaria vector, based on the development and spread of insecticide resistance.

With an emphasis on improved quality, IRS will primarily be used in targeted areas. Given all districts are covered by LLIN, IRS will be implemented where insecticide resistance, particularly to pyrethroids, is reported. It will also be used in areas where the country is transitioning towards elimination and may be applied in areas with high transmission intensity to reduce burden. Improved, informed communications methods will be required to ensure acceptance of spray activities. Targeted and prioritised IRS, based on operational considerations and entomological and epidemiological evidence will also be used to accelerate progress towards elimination in cross-border initiatives in southern Mozambique, as well as for control of outbreaks.

### 9.1.5 Improve coverage of IPTp to reach all eligible pregnant women at ANC

Renewed effort will be placed on continuing to extend the coverage of pregnant women with preventative therapies i.e. the third dose of IPTp (22% in 2015<sup>53</sup>) through understanding the barriers to access and uptake and then developing appropriate responses and tools.

The NMCP will work with the Mother-Child Health (MCH) Department to extend coverage of IPTp, as well as the quality of service delivery, efficiency and adherence to norms. Training and supervision visits will be used to build the capability and improve the attitudes and practices of ANC staff. Supply chain management issues will also be addressed to avoid stockouts.

Approaches will be developed to increase the frequency of ANC attendance and uptake of IPTp – this will include strengthening community involvement (leaders, APEs, traditional birth attendants, activists and others) to encourage women to attend their first ANC visit in the first 13 weeks of pregnancy and achieve the goal of at least 4 ANC visits per pregnancy and IPTp in all ANC visits from the thirteenth week of pregnancy.

### 9.1.6 Ensure appropriate management of vector control waste products

Both IRS and LLIN generate toxic waste products; the NMCP is committed to responsible implementation of these interventions, making every effort to limit human exposure to insecticides and prevent environmental contamination. Developing and disseminating waste management guidelines will ensure provinces and districts have the necessary guidance and tools to implement and supervise appropriate disposal of toxic waste, with the necessary resources to support this. It will be essential to monitor and control waste management practices to





ensure understanding and compliance. IRS waste can be solid (e.g. empty pesticide bottles, used cleaning equipment) or liquid (e.g. effluent). LLIN also generate substantial amounts of plastic and net waste (e.g. packaging materials and old nets).

#### 9.1.7 Perform entomological monitoring and evaluation

Vector control programmes should be planned on the basis of entomological data as these provide information on the habits and habitats of specific malaria vector species and monitor the impact of control measures. Entomological monitoring is therefore critical to planning, monitoring and evaluating vector control activities, particularly in the context of insecticide resistance and efficacy.

The NMCP recognises the need to strengthen the breadth and depth of its entomological activities and personnel, as well as to ensure appropriate and sufficient equipment, tools and funds for the job and identify opportunities for increased collaboration with national and international research institutes.

As well as addressing critical gaps in entomological data (e.g. insecticide resistance monitoring and management; vector species, density, behaviour and infectivity), the NMCP will perform bioassays for spray quality as well as supervise activities to ensure quality and confidence in evidence used for decision-making.

#### 9.1.8 Operationalise updated IVM strategy

The IVM strategy is the core guiding document defining the general approach for delivery of the major vector control methods to be implemented in Mozambique in order to address its complex and dynamic malaria situation. The IVM strategy is aligned with the National Malaria Policy (2010), the GTS (WHO, 2015), the Plan for Insecticide Resistance Management (WHO, 2012) and the Stockholm Convention (2001).

The IVM strategy was updated in 2016 to reflect the complex and dynamic situation of malaria in Mozambique. It promotes universal coverage with the use of LLINs for all populations at risk of malaria, and targeted IRS to control the development and spread of insecticide resistance, prioritising areas with a high malaria burden. The strategy prioritises routine collection of entomologic and epidemiologic data, which will be reviewed on an annual basis to inform implementation in support of targeted, evidence-based vector control, and promotes inter-sectoral collaboration. By the end of 2017, the IVM implementation plan will have been finalised.

## 10 Objective 3 – Case Management

**Test 100% of suspected malaria cases & treat 100% of confirmed malaria cases at health facility & community level, as per national guidelines, by 2022.**

### 10.1 Objective 3 Approach: strengthening case management quality

The NMCP will build upon the case management policies and guidelines in place which will enable the roll out of effective and affordable tools for malaria diagnosis and treatment to all levels of the system. The emphasis will be on strengthening and ensuring quality: improving case management practices and observance of the national guidelines – for malaria diagnosis (microscopy and RDTs) and treatment, as well as ensuring uninterrupted availability of commodities and improving case management data quality.

Microscopy will be used in cases of severe malaria, in cases of suspected therapeutic failure, for follow-up during hospitalisation or if an individual has been tested with an RDT within the last 28 days. RDTs are used throughout the health system, from provincial hospitals to peripheral health facilities, including by APEs, to increase access and coverage of malaria diagnosis at all levels. Currently, ACT is used to treat uncomplicated malaria, with artemether-lumefantrine (AL) used as the first line treatment for uncomplicated malaria, and intravenous artesunate as the first line treatment for severe malaria. At community level, RDTs, ACTs and artesunate suppositories (rectal caps) are being used by APEs. ANC services administer sulfadoxine-pyrimethamine presumptively during pregnancy from the thirteenth week of pregnancy.

As MiP can adversely affect both the mother and foetus (e.g. maternal anaemia, foetal loss, premature delivery, and low birth-weight), this objective includes specific effort to increase the provision of treatments to pregnant women. Collaboration will also be established with the private sector to increase / ensure knowledge of and compliance with national case management norms.

#### 10.1.1 Ensure appropriate malaria case management in health facilities and communities, as per national guidelines

Early effective treatment of malaria patients is critical to preventing mortality and reducing the incidence of severe cases. Health care service provider capacity for differential diagnosis and management of fever cases will be strengthened at all levels and mobile clinics will be introduced at borders for mobile and migrant populations.

As presumptive treatment may result in over-prescribing of ACT, RDTs have been rolled out for routine use at all levels of the health system to provide parasitological confirmation of malaria prior to treatment. With the potential for ACT resistance, it is important to ensure stable supply and rational use of ACTs and implement the proper use of RDTs or microscopy, as appropriate.

To improve case management practices, training will be provided to health service delivery staff in the public and private sectors (including private pharmacies, clinics and hospitals). APEs and TMP will also be trained to improve access to prompt and effective malaria diagnosis and treatment at community level.

Continuous monitoring of testing and treatment practices through formative supervision, ensuring health service providers have all the necessary guidelines, job aides and tools they require, will improve case management capability.

Treatment audits will be conducted to improve health care provider prescription practices, and mortality audits will identify underlying health, social and other contributory factors and provide evidence for decision-making on interventions to reduce morbidity and mortality.



The NMCP will work with the Pharmaceutical Department and Therapeutic and Pharmacy Technical Committee to strengthen antimalarial pharmacovigilance for the detection and analysis of data to understand adverse effects or other possible drug related problems. The NMCP will also continue support for the evaluation of therapeutic efficacy of treatments for uncomplicated malaria.

#### 10.1.2 Ensure all case management commodities are available at all service delivery points, as applicable

The continuous availability of malaria diagnostic and treatment commodities at all service delivery points is essential to ensuring all suspected malaria cases are promptly tested and prescribed appropriate treatment.

The NMCP will ensure the functioning of the case management commodities supply chain: (i) quantification, registration, QA, pharmacovigilance, storage and distribution; (ii) district and provincial health facility teams are responsible for stock requisition, management and reporting. This activity will be coordinated with CMAM, the APE programme, MCH Department, DPS and SDSMAS. Partners will be invited to participate in this process.

There is an established LMIS for malaria commodities and the quantification, forecasting and availability of antimalarial commodities has improved. To further reduce stock outs, LMIS capability at national, provincial, district and health facility level will be strengthened, particularly in face of the need to address logistics delays in distributing commodities from national level to provincial, from provincial to district and from district level to health facilities.

#### 10.1.3 Improve quality assurance and quality control of malaria diagnosis, as per national norms

Case management, through accurate and timely diagnosis and treatment, is one of the key strategies for reducing malaria related morbidity and mortality. Management of malaria is highly dependent upon accurate and timely diagnostic analyses as all clinically suspected malaria cases must be confirmed by a diagnostic test prior to treatment.

Multiple MISAU departments are involved in assessing needs and ensuring national diagnostic capacity, with efforts for effective coordination requiring definition of relationships, roles and responsibilities of each department. The National Institute of Health (INS) guarantees the quality of NMCP interventions, providing external observation as well as QC of diagnostic commodities, and the Pharmaceutical Department is responsible for medicines QC.

QA and QC systems have been established in Mozambique, however, there remains a need both for a specific manual to support standardised malaria detection methods and timely reporting, and for a mechanism to allow roll out and monitoring of these activities at all levels. Improved diagnostic quality and standardisation become even more important where parasite counts are lower.

## 11 Objective 4 – Social Behaviour Change Communication

**Implement an effective SBCC approach to ensure at least 70% of people seek appropriate & timely healthcare & at least 80% of the population uses an appropriate protection method, by 2022.**

### 11.1 Objective 4 Approach: effective, evidence-based SBCC

The NMCP has prioritised implementation of effective, evidence-based SBCC as critical for ensuring the effectiveness of all other malaria interventions. A multisectoral approach will be critical for this intervention. Civil society organisations, public and private institutions, community and religious leaders, journalists and communities provide an opportunity to enrich, extend and increase the impact of SBCC interventions. SBCC interventions must be based on evidence, using an inclusive multi-cultural approach and including appropriate use of interpersonal communication (IPC) and mass media. The NMCP aims for SBCC improvements across the board, from planning of activities to dissemination of tested materials in order to ensure key stakeholders are engaged, core messages are shared and accepted, and norms are shifted, resulting in more people adopting the desired behaviours that will improve uptake of malaria services.

The focus will be on ensuring clear, consistent messages that can be easily relayed and which ensure active engagement of target audiences at all levels. Development of messages and materials will be guided by the fact a multitude of factors influence health-seeking behaviour – from influential community / society members, to schools and health facilities, to the cultural norms, beliefs and practices which affect the way information is provided, received and used.

SBCC activities will be implemented in coordination with MISAU’s Health Promotion (DEPROS) and Communication and Image Departments.

#### 11.1.1 Assess malaria knowledge, behaviour and practices and the effect of SBCC interventions

There is a critical information gap related to SBCC in Mozambique. Existing research and status information needs to be compiled and a prioritised research agenda developed and implemented to better understand socio-cultural norms, determinants of uptake / rejection of interventions e.g. LLIN usage and IPTp, and malaria knowledge, behaviour and practices, both in order to help shape malaria messaging as well as develop responses that will both encourage adoption of desired behaviours and measure the impact of SBCC interventions so they may be continually improved.

#### 11.1.2 Effectively plan SBCC interventions

The SBCC strategy is the essential guiding document for NMCP and its partners. Following development of this MSP and the strengthened role of SBCC in programme activities, the existing communications strategy will be updated, costed and will serve as a tool to mobilise resources. Annual operational plans will progressively support achievement of SBCC objectives and ensure collaboration with relevant partners. There will be regular information sharing at all levels, as well as a focus on improving skills for effective governance of SBCC interventions.

#### 11.1.3 Implement advocacy and engagement at all levels and with all relevant sectors

The NMCP will build upon past advocacy success of malaria commemorative events and strengthen its engagement with multiple sectors in order to benefit from their knowledge and skills, share information and key



messages, identify and partner with malaria advocates at all levels, as well as increase visibility and understanding of the national malaria response. Importantly, advocacy and engagement efforts will be monitored for effectiveness and to ensure continuous improvement. Opportunities for collaboration with new stakeholders e.g. communications specialists, social scientists, will be fostered to support partnership, joint research and innovative practices.

#### 11.1.4 Increase demand, provision and utilisation of quality malaria services

This strategy signals a significant change to the scope and scale of planned SBCC interventions. The focus will be on developing evidence-based, context-relevant materials for use by healthcare providers – including health workers, APEs, activists, local leaders and mass media, in order to effectively increase demand for as well as provision and use of malaria services across the country.

Materials will draw on evidence gathered by the NMCP, activities will be supervised and monitored and information used and shared to allow continuous adaptation and improvement, as necessary.

#### 11.1.5 Reinforce knowledge and influence social norms and behaviours for malaria prevention

This strategy emphasises the development, implementation and monitoring of interventions to increase malaria prevention behaviours such as LLIN use, IRS acceptance and the implementation of other individual and collective protection measures e.g. the use of repellents, improvements to housing. Effective IPC and mass media strategies will be developed to improve the relevance and impact of messages and materials on influencing behaviour. The knowledge and capabilities of people respected in their community, such as community leaders and APEs, will be strengthened in order that they may positively influence and mould behaviours.

These new strategies and the overall effectiveness of SBCC activities will be supervised and monitored to ensure their quality and allow for improvement as required.



## 12 Objective 5 – Elimination

**Accelerate efforts towards malaria elimination through epidemiologically appropriate interventions, by 2022.**

### 12.1 Objective 5 Approach: accelerating efforts towards elimination

The strategies and activities that follow build upon the effort described for all other objectives in this MSP and are designed to allow implementation of adaptive responses in designated areas as appropriate to changing local transmission levels and guided by epidemiological and entomological data.

Implementation of this objective occurs within identified areas of low transmission suitable for implementation of elimination strategies, based on stratification. This objective supports the country's elimination efforts through strengthening capability and capacity in malaria surveillance, OR and M&E, thereby enabling prompt responses to outbreaks and resurgence, and generating evidence for effective tailoring of interventions. Gathering and use of entomological data will be intensified to adaptively target vector control activities. In addition, the NMCP will work to mobilise additional resources and advocate for increased and sustainable malaria financing to achieve and sustain malaria elimination beyond existing financial commitments.

#### 12.1.1 Establish flexible, effective, active epidemiological surveillance systems to support response in defined areas

In order to inform decision-making at all levels for targeting and prioritising interventions, effective case-based surveillance systems which enable appropriate and timely responses must be established. This will involve Mozambique identifying and filling its HR needs, ensuring all required capability to effectively manage and implement active/reactive surveillance as appropriate, as well as ensuring rapid access to diagnosis and treatment systems. These activities will require supervision, monitoring and control – and the NMCP will reinforce these skills as appropriate.

These activities will be supported by the regional initiatives which are harmonising malaria surveillance guidelines (focused on case classification and investigation) and establishing a regional surveillance platform based on geo-located data on individual cases, as well as entomological data.

#### 12.1.2 Harmonise broad case management and vector control strategies in defined areas where regional commitments exist

Mozambique's initial elimination efforts have been determined within the context of regional, cross-border initiatives; harmonisation and coordination are critical to their success. This strategy therefore calls for proactive engagement in coordination activities, joint planning (based on evidence and identified needs), and synchronised case management and integrated vector control strategies. In order to successfully meet its commitments, the NMCP will need to ramp up logistics and HR needs in defined geographical areas.

#### 12.1.3 Target interventions based on drivers of transmission in defined areas

In elimination areas it is essential to use tailored approaches based on sound entomological and epidemiological information. Essential tools to effective intervention targeting include annual updates of malaria risk stratification, building the skills and providing the equipment to implement foci investigation and appropriate responses to ensure transmission is interrupted.



#### 12.1.4 Ensure financial sustainability of elimination efforts, based on evidence

Without consistent political commitment, significant and predictable funding and strong regional collaboration, it will not be possible to achieve and sustain elimination targets and achievements. The NMCP will therefore work to create an enabling environment, collaborating with its neighbours, different sectors and partners to build a strong investment case for elimination within Mozambique and the region. This will require a strong elimination advocacy strategy and plan, skilled stakeholder engagement, the production and dissemination of evidence, and clear, concise marketing and communications tools.

## 13 Objective 6 – Surveillance, Monitoring & Evaluation

**Strengthen the surveillance system so 100% of health facilities & districts are reporting complete, timely & quality data by 2020.**

### 13.1 Objective 6 Approach: improving surveillance quality

With this objective, the NMCP is transforming malaria surveillance into a core intervention to ensure quality malaria information is gathered, analysed and used to track performance and implementation progress.

The use of high-quality surveillance data and OR for decision-making are at the centre of the NMCP's approach to pursue interventions based on evidence and customised according to local epidemiology and entomology. The NMCP SM&E plan will be updated to ensure it reflects the requirements of this MSP.

This objective focuses on strengthening national M&E capacity at all levels – increasing capacity to accurately generate, analyse and use data, improving data quality and timeliness, establishing a comprehensive IMISS and ensure it is accessible at all levels, as well as defining and systematising surveillance and OR requirements to allow regular assessment of interventions and generate evidence to fill knowledge gaps and allow appropriate, informed decisions to be taken.

In addition, the NMCP will improve its preparedness and capacity to respond to malaria outbreaks and epidemics through establishing an epidemic preparedness and response (EPR) system.

#### 13.1.1 Improve malaria M&E capacity at all levels

Improving malaria M&E capacity at all levels is essential to achieving this objective and a crosscutting component of the MSP to ensure accurate malaria-related information is gathered, analysed and used to track performance and implementation progress, as well as orientate decision-making.

Considerable progress has been made in improving surveillance, with key malaria indicators included in the HMIS, and trained M&E focal points at provincial and district level. This strategy will develop the necessary responses and tools to continue to improve the quality and completeness of data collection and analysis at all levels.

In addition, strengthening coordination on surveillance and M&E will allow for feedback and continuous improvement of systems. There will be ongoing supervision and regular monitoring of M&E performance in order to evaluate progress and ensure sustained improvements.

#### 13.1.2 Establish a data quality assurance system

A comprehensive data QA system will be established early in this MSP to ensure quality controls are in place and there is good follow-up on performance. The QA system will ensure improvements to the quality, availability and management of malaria data, thereby optimising its use for decision-making and programmatic responses.

#### 13.1.3 Establish a comprehensive integrated malaria information storage system at all levels

The creation and maintenance of a comprehensive IMISS is needed to store malaria data collected through the HMIS and all other relevant data collection systems e.g. those for LLIN and IRS campaigns, LMIS, laboratory, entomology, data QA etc., in order to allow data analysis and access to information in real-time, supporting its use in programmatic decision-making.





The IMISS will also store programme documents such as policies, strategies, guidelines, plans, annual reports, project reports, and published and unpublished reports on malaria in Mozambique. There will be engagement with the private sector so the sector reports on malaria cases and deaths.

Design and implementation of the IMISS will require strong collaboration, training and a feedback mechanism to support the monitoring and controlling of data collection and analysis.

#### 13.1.4 Establish a system and strategy for outbreak responses in epidemic prone areas

Developing a strategy for EPR is important due to Mozambique's vulnerability to drought and floods, which affect malaria transmission patterns and can leave displaced populations vulnerable.

The NMCP, Epidemiological Department and INS have jointly mapped provinces at risk for malaria outbreaks, with the next step being to develop an EPR strategy and operational manual to define the response to outbreaks and epidemics and establish the necessary capacity (human, material and financial).

#### 13.1.5 Establish a system to ensure implementation and operational research are conducted and results used to inform Programme activities in real time

National surveillance and OR, designed so they provide results of sufficient quality and relevance, are essential to providing evidence for policy and programmatic decisions. The NMCP is committed to working with partners to produce and disseminate a prioritised research agenda, to guide potential research opportunities and to optimise available resources in order to ensure research findings are programme-relevant and support actionable findings. Research will be implemented to support all programmatic areas e.g. MiP, LLIN etc.

In addition to regularly ensuring the research agenda continues to reflect NMCP priorities, dissemination and sharing of results nationally and internationally is a central focus, as is the integration of results in policy and decision-making. The NMCP is also committed to mobilising large-scale programme impact surveys within best practice timelines.

# 14 Programme Management

## 14.1 NMCP Human Resources & Functions

### 14.1.1 Institutional organisation and functional structure

MISAU provides strategic oversight to the DPS which, with the districts, is responsible for health service provision in health facilities. The NMCP sits within the DNSP of MISAU and has structures for disease control at provincial and district levels countrywide. The NMCP is headed by the programme director and supported by one administrative and five technical units: Prevention, which includes vector control and MiP, SBCC, Case Management, SM&E and Elimination.

The HR needs of the NMCP illustrated in the chart below (Figure 14-1) are based on those defined during an internal needs assessment exercise undertaken in 2015<sup>54</sup> by the NMCP team, which was shared and updated based on feedback from malaria partners. This needs assessment exercise will be repeated through Objective 1 of this MSP and will be extended to include provincial as well as central level NMCP staff. Figure 14-1 also reflects the current staffing status of the NMCP at the time of writing.

When updating the internal needs assessment, the NMCP will define the structure based on actual requirements for fulfilling its mission rather than define its needs based on existing resources; this exercise will necessarily align with ongoing MISAU and GoM public sector HR reforms.

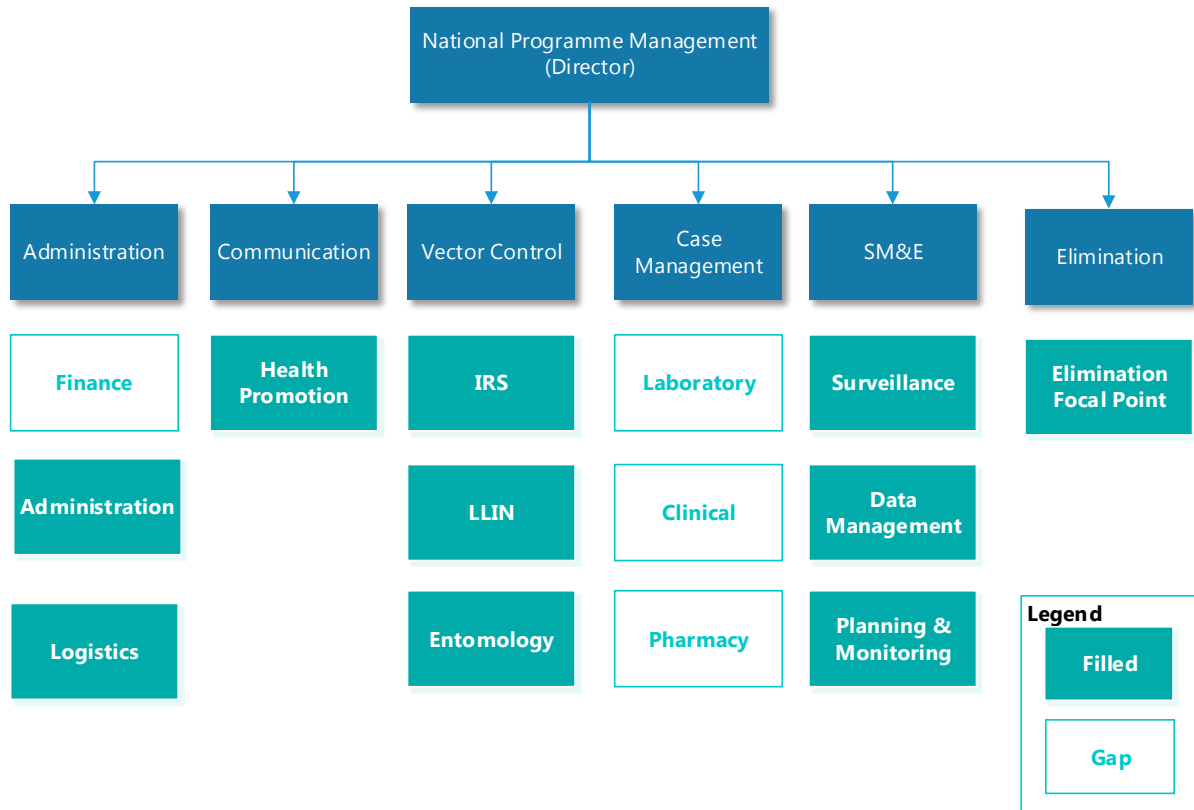


Figure 14-1: Functional structure of NMCP at central level

As illustrated above, an administration and a logistics position support the programme, with one gap remaining for a finance position. The communication position acts as a link with DEPROS. Urgent recruitment is required to build the case management team which currently has no staff. Elimination efforts are led by a full-time, elimination focal point.

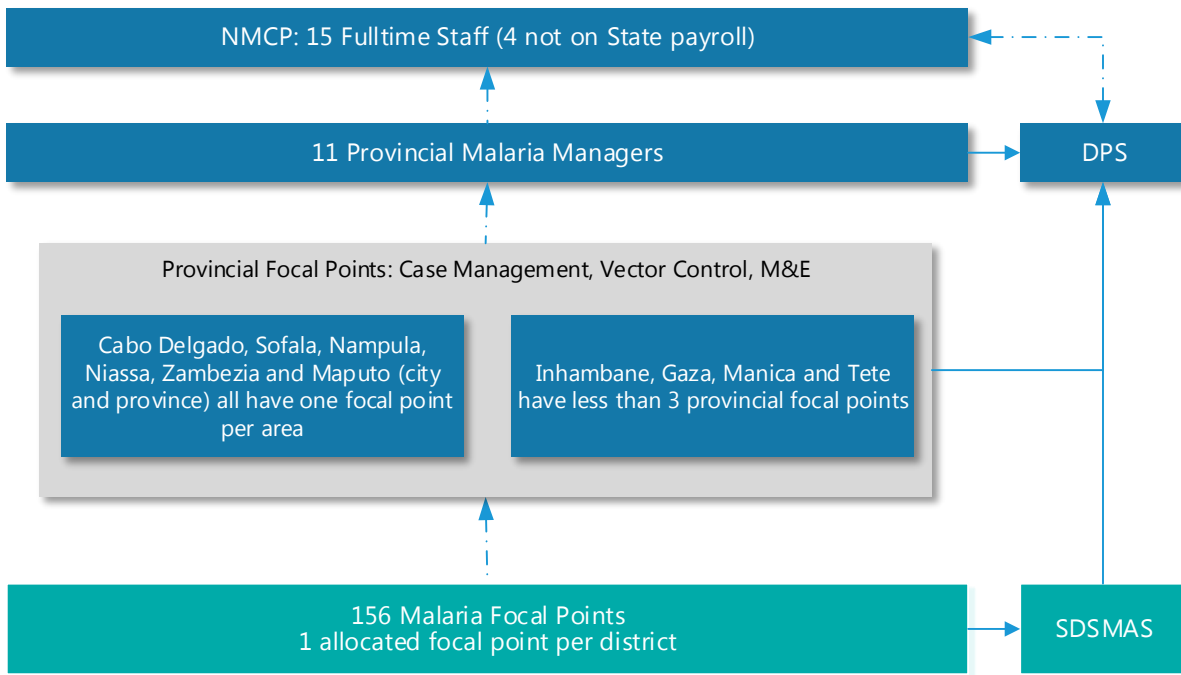


Figure 14-2: Linkage between malaria programme staff at central, provincial and district level

As illustrated in Figure 14-2 above there are currently 15 full time malaria programme staff at central level, including the Director (four of these are not on the state payroll). Each province has a dedicated malaria manager. In addition, provinces have identified resources to act as focal points for case management, vector control and M&E – not all provinces have managed to fill these positions, nor have all successfully identified a separate individual for each technical area.

Each district has a malaria focal point, though these often have additional responsibilities within the district health structure and are not generally dedicated to malaria. District malaria focal points report within the SDSMAS structure and subsequently to the DPS.

Provincial malaria managers and all focal points are integrated within their respective DPS and SDSMAS structures. Provincial capacity development priorities include ensuring managers’ capability to perform their role with quality, and to support district level to do the same. The updating of the NMCP internal needs assessment will provide an updated picture of skills required and appropriate responses.

### 14.1.2 Functions

The NMCP is staffed by government employees as well as technical staff contracted through partners. There are two operational divisions: technical and administrative. Within the technical division, there are five separate units, the heads of which report directly to the NMCP Director, who provides overall technical oversight and coordination:



These units coordinate the planning and implementation of their respective malaria interventions as well as the supervision, M&E of implementation by provincial and district staff and implementing partners.

The **integrated vector control unit** currently comprises a total of seven staff and is subdivided into three implementation areas: LLIN, IRS and entomology. Its principle functions are to lead, coordinate and provide technical support for all integrated vector control activities.

The **case management unit** looks after all aspects related to diagnostic, treatment, logistics and pharmaceutical services, as well as MiP and preventative therapies. This unit leads, currently unmanned, coordinates, manages and provides technical assistance on all aspects related to malaria diagnosis, treatment and preventative therapies in the country.

The **SBCC unit** comprises one staff member who collaborates with DEPROS for development and implementation of interventions. The unit oversees and coordinates all malaria SBCC activities implemented by the NMCP and different partners in the country.

The **SM&E unit** comprises three staff; the work of this unit is supported by M&E focal points at provincial and district level. This unit is responsible for programme M&E, data management, OR, surveillance and response.

The **administration unit** is currently supported by an administration / finance staff member and a logistics advisor; its functions include coordination availability and utilisation of programme resources including financial, human, materials, equipment and infrastructure.

### 14.1.3 Priorities and Approach

Human resource priorities have been directly planned for in this MSP with a focus on:

- Further defining requirements
- Ensuring capability strengthening of programme staff at all levels
- Developing approaches to address staff retention
- Improving working conditions at all levels in terms of physical space, equipment and transport
- Developing a system for performance-based incentives or similar to reward effort

It is intended the NMCP needs assessment occurs early in MSP implementation to enable the sound operational basis required for successful implementation of intervention area strategies.

There is a wider exercise in HR reform occurring within MISAU at all levels, and NMCP efforts will align with this effort. Appropriate approaches to addressing HR priorities will be identified during the programme needs assessment exercise, which will take place at central and provincial level. This exercise involves developing a needs-based organigram and includes defining NMCP functional requirements, developing / revising job descriptions; reviewing / defining the roles of programme advisors (including establishing, monitoring and controlling their deliverables, as well as ensuring clarity on formalisation of any partner-supported roles); allocating current staff into the organigram according to their skills; identifying capability gaps and solutions; and seeking to fill HR gaps using a variety of approaches e.g. reallocate existing MISAU / DPS staff, work with universities to place graduates, or establish coaching / training mechanisms for skills and knowledge building.

## 14.2 NMCP Governance and Coordination

The NMCP has overall responsibility for leading and managing malaria interventions nationally – however many of the issues faced are multi-sectoral, involve a range of funding, technical and implementation partners and stakeholders.

In 2015, the NMCP formed the Malaria Technical Advisory Committee as an independent consultative body tasked with providing technical and scientific advice to promote policies based on evidence that will accelerate efforts towards elimination in the country. The committee advises MISAU and the NMCP but has no executive or regulatory powers.

The committee's role is to recommend action based on: analysis of the malaria situation in Mozambique; critical review of elimination projects; identification of gaps and appropriate, best practice responses for malaria interventions; analysis of malaria data management and quality; as well as to provide technical opinion and recommendations in response to specific issues raised by MISAU and the NMCP.

The committee is a multi-disciplinary body with up to 22 individual members who are based in Mozambique and are known for their malaria technical capability in areas including epidemiology, parasitology, public health, health systems, medicines supply, economy and finances, M&E, social and behavioural sciences, advocacy and health communications. Members are nominated by MISAU.

Malaria implementation requires effective and regular coordination with different MISAU programmes and departments. For the most part, this coordination is functioning, however, the NMCP will continue to work towards maximising the outputs of these opportunities as outlined in Section 16.

### 14.3 Policy and Strategy Development and Review Cycles

In line with MISAU practice, the NMCP has a national malaria policy and five-year strategy which provide strategic direction to interventions and partner support. The content of the MSP is aligned with national strategic and development priorities and is informed and guided by current WHO global strategy. Exceptionally, this MSP is a six-year strategy (see Section 4.1).

MSP implementation and progress is formally reviewed annually (national malaria meeting with government stakeholders and malaria partners), at the half-way point (permitting adjustments and / or updates) and towards its end (to input into development of the next strategy). The MSP is accompanied with an indicative budget and detailed action plan.

From these documents, a detailed NMCP annual operational plan is developed. Each programme area subsequently develops its own detailed annual implementation plans. NMCP annual plans are shared with the DPS and partners; the DPS works with the SDSMAS to include relevant malaria activities, as advised by the NMCP, in the provincial and district planning cycles.

#### 14.3.1 Guiding policy, strategies and guidelines

Governance of the NMCP and the different programme areas is orientated by the comprehensive policy, strategy and guideline documents developed and shared with national stakeholders, at all levels, and international partners. Key guiding policy, strategy and guideline documents are:

- National Malaria Policy (2011)
- Malaria Monitoring and Evaluation Plan (2016; to be reviewed in 2017)
- Integrated Vector Management Strategy (2016; to be updated in 2018/19)
- SBCC & advocacy strategy (to be updated in 2018)
- M&E manual (2016; to be updated in 2017 to address new indicators)
- Malaria treatment guidelines 2011 (to be updated in 2017)
- Elimination 8 strategic plan 2015 – 2020
- MOSASWA strategic plan 2016 – 2020
- Annual NMCP work plans
- IVM operational plan (to be reviewed in 2017)
- IPTp guidelines
- Laboratory QC manual (to be updated in 2017)

## 14.4 Coordination

### 14.4.1 Institutional Coordination (other programmes and departments)

Malaria implementation requires effective and regular coordination with different MISAU programmes and departments. For the most part, this coordination is functioning; however, the NMCP has included specific activities within this strategy to directly address strengthening of this coordination. Please refer to the operational plan (Section 16) for activities on coordination relationships.

### 14.4.2 Partnership Coordination

Malaria partners are central to supporting achievement of NMCP goals and objectives.

Whilst general coordination with partners has improved over the last five years, the NMCP is committed to continuing to build relationships, sharing information and provide the opportunity for partner perspectives to contribute to strategy and operations. A first step towards improved stakeholder management has been the mapping of current partners.

To improve its efficiency and time management, the NMCP Director meets with lead partners quarterly to discuss progress, resolve issues and plan / coordinate activities. These meetings have proved effective.

At central level, TWGs exist for each programmatic area (IVM, case management, SBCC, M&E and elimination) – this MSP plans to increase their efficiency by reviewing and updating (as necessary) their terms of reference, improving the planning and scheduling of meetings, as well as monitoring them to ensure their effectiveness.

Cross-border initiatives hold meetings twice a year to share inter-country updates on the malaria situation; these meetings are attended by the NMCP Director, as well as representatives from the case management, vector control and M&E units.

There is an annual NMCP meeting attended by all central and provincial level dedicated malaria staff, MISAU stakeholders and malaria partners. This meeting reviews annual achievements and agrees the broad plan for the following year; it generally takes place in the first semester.

## 14.5 Procurement and Supply Management System

Two MISAU institutions are responsible for procurement, which is undertaken according to international standards:

1. CMAM, which procures drugs and most medical supplies financed by the State Budget.
2. UGEA, which procures medical-surgical supplies, medical and non-medical equipment, furniture, non-medical supplies and transport facilities.

Partner financed medicines and medical supplies are procured by independent, international entities, with quantification and forecasting for their arrival in-country supported by CMAM, and the relevant disease programme or department. In the case of the NMCP, this includes procurement of LLIN, insecticide and laboratory equipment e.g. for laboratory diagnosis of malaria.

CMAM and the Supply Centre are responsible for drug distribution and storage from central (Maputo, Beira and Nampula) to provincial level, with partners supporting management of the distribution system. Provincial distribution centres channel drugs to districts on a monthly basis.

Technical assistance from the United States Government continues to build CMAM and NMCP capacity to improve the supply chain, particularly through quantification and forecasting, central warehouse management practices, and the LMIS – including the electronic software called SIMAM. Implementation of SIMAM and efforts to reinforce timely reporting have increased visibility of stock data from central level to all provinces and districts. Supervision and quarterly provincial logistics meetings are addressing challenges to increasing reporting timeliness and quality, and in use of data for decision-making.

Selection and quantification of required drugs takes place in a quantification subgroup of the pharmaceuticals TWG, which comprises CMAM, the NMCP and partners. Estimates of annual needs are based on forecast and supply planning exercises which review and define antimalarial drug forecasting and quantification considering several variables. The methodology is based on morbidity, available epidemiological data, population data and projections from the national census (2007) using an average annual growth rate of 3%.

ACT quantification also considers the maximum and minimum buffer stock levels required across the health system, the time needed to transport drugs through the system, and the relatively shorter shelf-life of AL compared to other non-artemisinin-based malaria treatments. It also takes into account differences in age group, months of risk, rural and urban populations, access to health services, vector control interventions, and the scale up of RDTs and IPTp. The improved distribution and consumption data from the LMIS has been critical to improving quantification.

## 14.6 Financial Resource Management

The Ministry of Economy and Finance (MEF) channels funds earmarked for MISAU through the following mechanism:

- Budgeting processes clarify the source of the resources;
- In a first phase they are registered against MISAU;
- Over the course of the year, funds are sent to the provinces / districts;

- MISAU implements the funds, requesting them via the electronic state financial management system (e-SISTAFE) according to the different classifications;
- MEF makes the funds available according to the requests – if necessary, MISAU prioritises requests;
- At the end of the year MISAU requests the balance; external (sector budget support) funds can be transferred to the following year.

Financial systems are being strengthened through implementation of the MISAU Public Financial Management Action Plan which includes developments in payroll management, expanded coverage of e-SISTAFE across the government, quarterly and yearly progress monitoring within CMAM and the supply chain generally, and the roll out of SIMAM for provincial warehouses. Tools have been developed for monitoring and conducting financial analysis to facilitate the reconciliation of e-SISTAFE payments and facilitate reporting according to cost categories, intervention areas and objectives, as defined in agreements.

MISAU's Fiduciary Control Plan is used to mitigate the risks identified in its current financial management and a unit within the Directorate of Administration and Finance is responsible for accounting and reconciliation. After disbursements, all payments are sent daily to this unit for review, verification and reconciliation with the e-SISTAFE reports.

The Administrative Court is responsible for undertaking annual audits; MEF provides statements and other support as requested.

#### 14.6.1 Priorities and Approach

Financial priorities have been directly planned for in this MSP with a focus on:

- Having a first-rate, accurately costed and phased strategy and operational plan which can be used as the basis for mobilising resources, including for specific components – allowing negotiation with donors to ensure equitable allocation of resources.
- Developing fund-raising and advocacy tools which illustrate simply and measurably cost-benefit and the impact different levels of funding could have on achieving specific goals and objectives.
- Ensuring maximum benefit to overall health systems strengthening to support effective implementation and efficient absorption of available resources.

Approaches to mobilising additional programme resources will include:

- Based on the MSP, maintain a programme financial gap analysis and develop and manage a fundraising strategy to meet identified, prioritised gaps – including development of appropriate tools.
- Developing and sharing, in an accessible way, programme achievements and successes based on evidence, to demonstrate the effectiveness of different interventions and encourage investment.
- Undertake comprehensive national and international stakeholder mapping, of both current and potential new partners and their areas of interest, harnessing existing support.
- Coordinating with partners to ensure available human, financial and material resources are maximised.
- Work with other MISAU departments to support improved coordination of funds and reduce duplication – particularly with regard to implementing partners.

### 14.7 Budget and Financial Plan

The figures that follow provide summary information on the financial requirements for full implementation of this NSP.

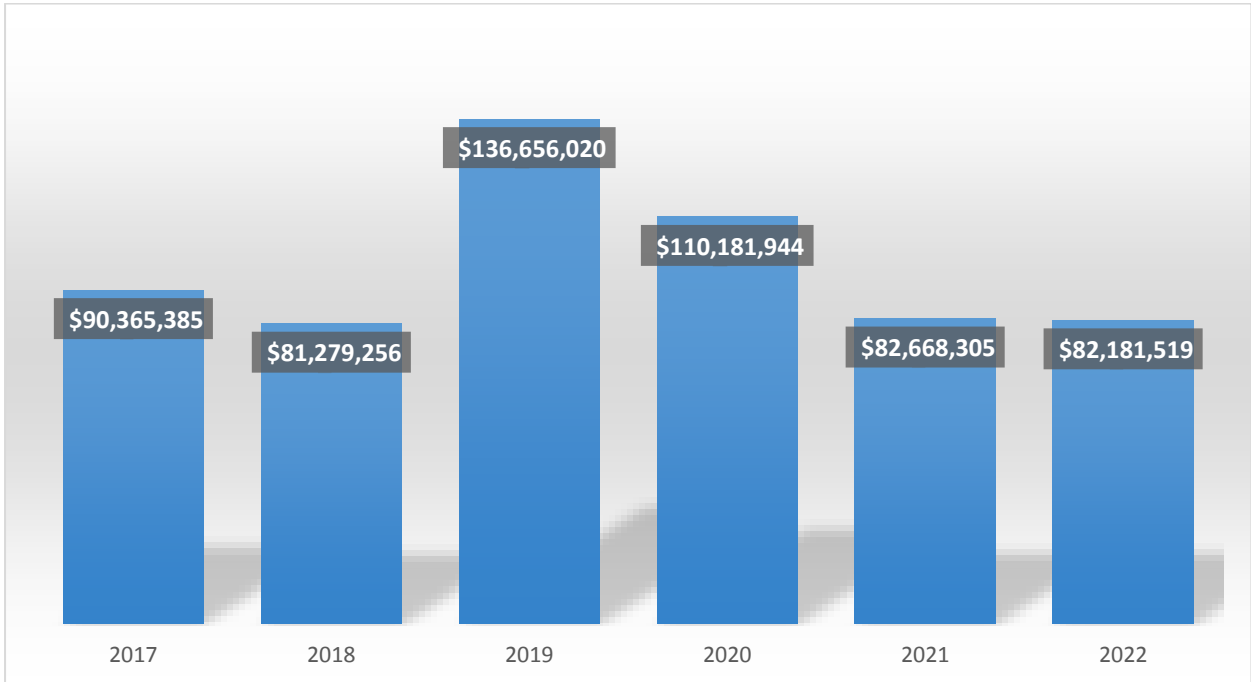


Figure 14-3: Budget summary by spend per year 2017-2022

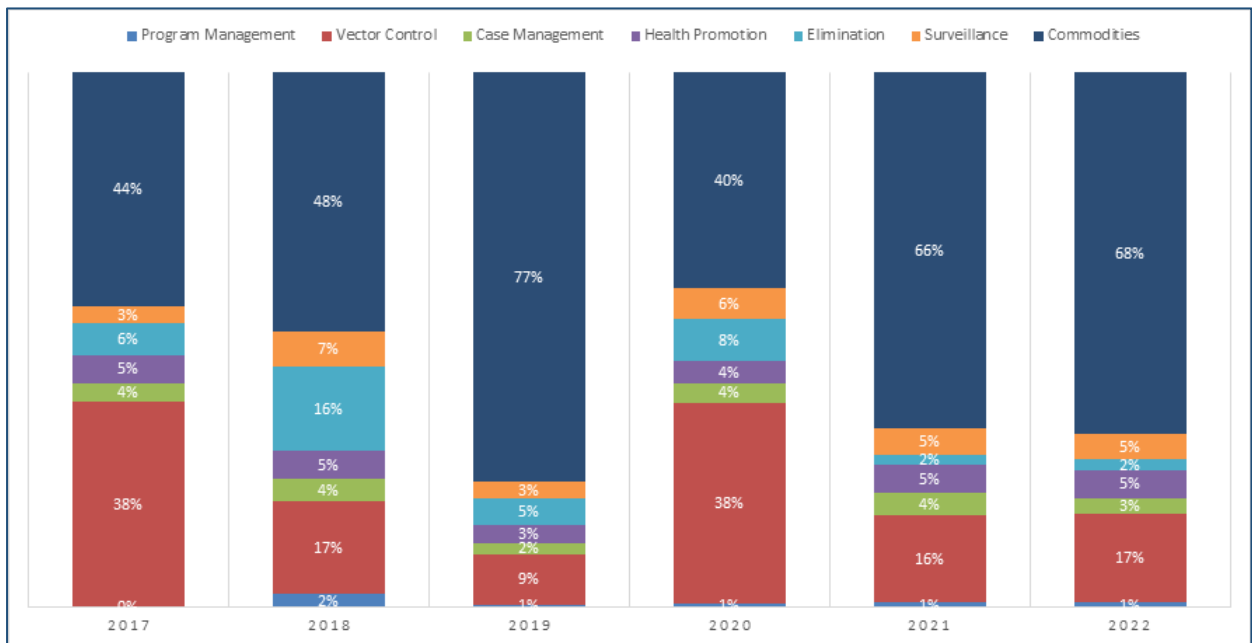


Figure 14-4: Budget summary by % objective cost



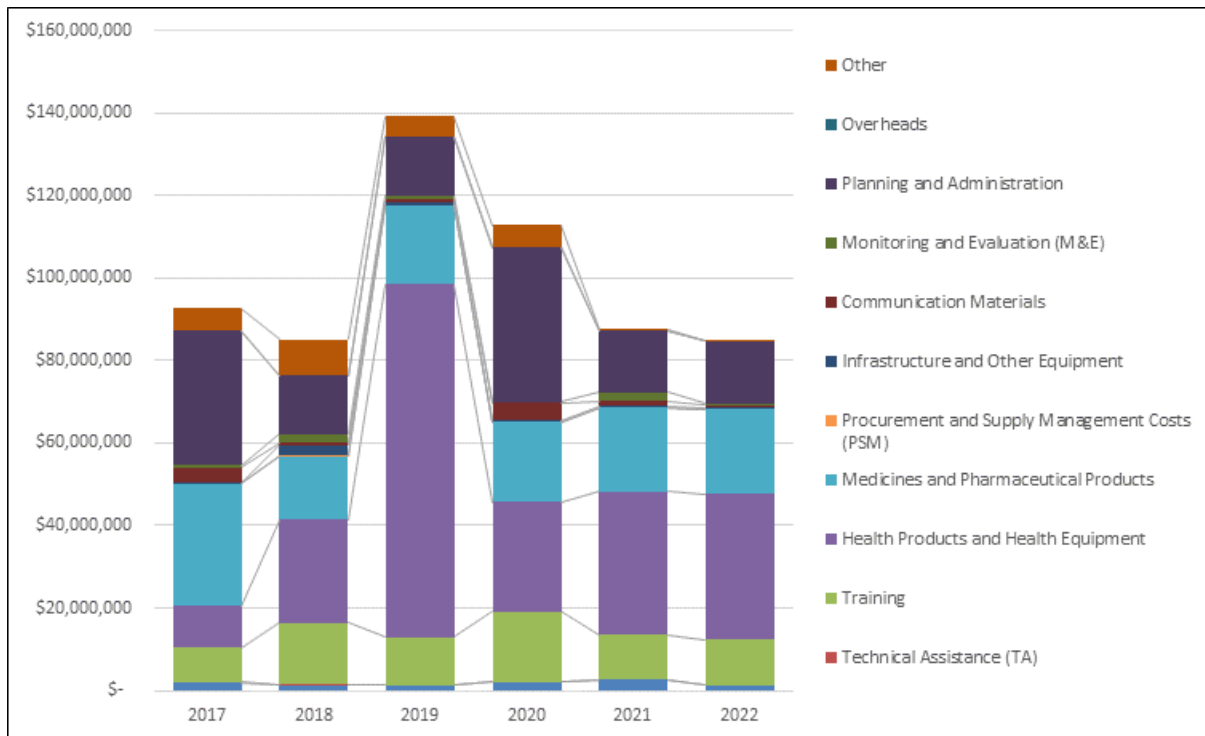


Figure 14-5: Budget summary by cost category

## 14.8 Resource Mobilisation

### 14.8.1 Financial Gap Analysis

The financial gap analysis, taking into account sources of funding, is provided below.

Table 14-1: Total MSP funding by source and year

Total Funding	2018	2019	2020	2021	2022	TOTAL
MISAU	\$3,227,323.73	\$3,399,385.70	\$3,353,547.43	\$3,271,571.11	\$3,271,571.11	\$16,523,399.07
PMI	\$16,447,122.69	\$15,845,695.68	\$16,212,424.30	\$21,258,953.11	\$20,061,367.84	\$89,825,563.62
WHO	\$401,450.96	\$309,291.62	\$46,454.92	\$50,460.18	\$49,073.72	\$856,731.40
UNICEF	\$171,965.42	\$325,721.84	\$181,659.60	\$186,709.73	\$49,073.72	\$915,130.30
UNITAID	\$68,268.00	\$73,210.00	\$78,412.00	-	-	\$219,890.00
E8	\$110,734.66	-	-	-	-	\$110,734.66
UCSF	\$37,500.00	\$18,750.00	-	-	-	\$56,250.00
Global Fund	\$33,857,679.09	\$73,100,186.28	\$29,633,576.32	-	-	\$136,591,441.70
World Vision (GF)	\$23,634,402.00	-	-	-	-	\$23,634,402.00
Total External Contributions	\$74,729,122.81	\$89,672,855.41	\$16,518,950.82	\$21,496,123.03	\$20,159,515.28	\$222,576,567.35
Total Domestic Contributions	\$3,227,323.73	\$3,399,385.70	\$3,353,547.43	\$3,271,571.11	\$3,271,571.11	\$16,523,399.07
<b>Total Funding 2018-2020</b>	<b>\$190,901,185.90</b>					
<b>Total Funding 2018-2022</b>	<b>\$239,099,966.42</b>					



Table 14-2: MSP costing by objective, commodities and year

MSP Costing	2017	2018	2019	2020	2021	2022
Objective 1	\$74,511	\$2,000,096	\$691,714	\$689,428	\$662,035	\$671,180
Objective 2	\$34,554,586	\$13,948,735	\$12,757,269	\$41,351,542	\$13,299,967	\$13,557,756
Objective 3	\$3,165,733	\$3,316,507	\$2,772,019	\$3,944,469	\$3,467,066	\$2,439,320
Objective 4	\$4,719,499	\$4,334,584	\$4,509,898	\$4,605,444	\$4,357,361	\$4,194,122
Objective 5	\$5,363,939	\$12,871,813	\$6,880,858	\$8,671,981	\$1,595,607	\$1,632,020
Objective 6	\$675,162	\$5,321,083	\$4,331,792	\$6,264,880	\$4,197,083	\$4,029,807
Commodities	\$7,350,099	\$39,342,024	\$104,568,055	\$44,509,783	\$54,944,769	\$55,512,899
<b>Total Need</b>	<b>\$55,903,528</b>	<b>\$81,134,840</b>	<b>\$136,511,605</b>	<b>\$110,037,528</b>	<b>\$82,523,890</b>	<b>\$82,037,104</b>

Table 14-3: Total funding contributions to MSP funding by objective and year

Total Contributions by Objective	2017	2018	2019	2020	2021	2022
Objective 1	-	\$138,035	\$148,114	\$148,035	\$30,084	\$30,000
Objective 2	\$20,000	\$33,761,522	\$9,349,711	\$9,478,090	\$9,484,651	\$9,669,717
Objective 3	-	\$1,536,978	\$701,850	\$695,850	\$241,446	\$248,158
Objective 4	-	\$41,502	\$74,619	\$78,321	\$78,687	\$49,939
Objective 5	-	-	-	-	-	-
Objective 6	\$251,408	\$2,354,019	\$872,546	\$958,704	\$1,340,680	\$1,615
Commodities	\$12,835,109	\$40,124,390	\$81,925,401	\$38,147,074	\$13,592,147	\$13,574,484
<b>Total Need</b>	<b>\$13,106,517</b>	<b>\$77,956,447</b>	<b>\$93,072,241</b>	<b>\$49,506,075</b>	<b>\$24,767,694</b>	<b>\$23,573,913</b>

## 15 Monitoring and Evaluation Framework 2017 - 2022

Indicator	Indicator Type	Baseline 2015	Baseline 2016	Target 2017	Target 2018	Target 2019	Target 2020	Target 2021	Target 2022
<b>Overall NSP Goal 1. By 2022, reduce malaria mortality at national level by 40% compared to levels observed in 2015</b>									
1. Inpatient malaria deaths (per 100,000)	Impact	10	6.0	5.3	4.8	4.2	3.8	3.4	3.0
2. Percentage of inpatient deaths due to malaria	Impact	10	4.0	3.6	3.2	2.8	2.5	2.2	2.0
3. All cause under 5 mortality rate per 1000 live births	Impact	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
<b>Overall NSP Goal 2. By 2022, reduce malaria morbidity at national level by 40% compared to levels observed in 2015</b>									
4. Inpatient malaria cases (per 10,000)	Impact	23	14.4	13.4	12.4	11.5	10.7	10.0	9.3
5. Percentage of inpatient cases with a discharge diagnosis of malaria	Impact	23	20.0	18.8	17.7	16.6	15.6	14.6	13.8
6. Malaria prevalence in children under 5	Impact	40.2	40.2	37.5	34.8	32.2	29.5	26.8	24.1
7. Incidence of malaria (confirmed and clinical cases per 1,000)	Outcome	249	286.0	256.8	230.6	207.1	186.0	167.0	150.0
8. Proportion of malaria OPD	Outcome	17	20.4	18.1	16.2	14.4	12.8	11.4	10.1
<b>Objective 1. Strengthen programme management skills at all levels to effectively achieve the Strategic Plan objectives, by 2022</b>									
9. Proportion of central, provincial and district staff trained on malaria program management	Output	n.a	n.a	0%	0%	100%	100%	0%	0%
<b>1.1 Establish the NMCP organigram and ensure NMCP staff, at all levels, have the required capabilities to perform their roles</b>									
10. Proportion of central level gap staffing	Process	n.a	n.a	80%	85%	90%	95%	100%	100%
<b>1.2 Ensure effectiveness of programme management</b>									
11. Number of Annual Malaria Meetings	Process	n.a	n.a	100%	100%	100%	100%	100%	100%
12. Proportion of provinces with malaria operational plans aligned to the 2017-2022 NSP	Process	n.a	n.a	0%	100%	100%	100%	100%	100%
13. Proportion of provinces that have, at least, two coordination meetings held between NMCP and partners, in calendar year	Process	n.a	n.a	100%	100%	100%	100%	100%	100%
14. Risk management plan finalized and disseminated	Process	n.a	n.a	0%	100%	0%	0%	0%	100%
<b>1.3 Establish mechanisms for communications and coordination at all levels, including partners</b>									
15. Proportion of national TWGs that have at least four meetings held in a calendar year	Process	n.a	n.a	75%	100%	100%	100%	100%	100%
<b>1.4 Establish effective and accountable partnerships to secure adequate resources and their appropriate use</b>									
16. NSP budget updated and reviewed	Process	n.a	n.a	n.a	1	1	1	1	1
17. Gap analysis updated and reviewed	Process	n.a	n.a	n.a	1	1	1	1	1
18. Burn Rate calculated and reviewed	Process	n.a	n.a	n.a	1	1	1	1	1
<b>1.5 Ensure effective coordination &amp; communications on Procurement and Supply Management, at all levels</b>									
19. Updated PSM plan	Outcome	n.a	1	1	1	1	1	1	1
<b>Objective 2. Provide at least 85% coverage of the population with a minimum of one vector control intervention, in every district of the country, by 2022</b>									
20. Percentage of households with at least one ITN for every two persons	Outcome	38.9	38.9	47	54	62	70	77	85
21. Proportion of target population protected by IRS in the last 12 months	Outcome	14.0	17	85%	85%	85%	85%	85%	85%
22. Proportion of population with access to an ITN within their household	Outcome	53.8	53.8	59	64	69	75	80	85
<b>2.1. Implement mass LLIN distribution campaigns to achieve universal coverage</b>									
23. Proportion of at-risk population covered by long-lasting insecticidal nets distributed through mass campaigns	Process	0%	94%	85%	0%	0%	85%	0%	0%
<b>2.2. Implement continuous LLINs distribution to sustain universal coverage</b>									
24. Proportion of pregnant women who received an LLIN at ANC	Outcome	85%	85%	88%	90%	93%	95%	98%	100%



Indicator	Indicator Type	Baseline 2015	Baseline 2016	Target 2017	Target 2018	Target 2019	Target 2020	Target 2021	Target 2022	
<b>2.3. Implement Indoor Residual Spraying</b>										
25. Proportion of targeted households sprayed	Outcome	86%	89%	85%	85%	85%	85%	85%	85%	
26. Spray coverage (Proportion of found houses sprayed)	Outcome	n.a	94%	85%	85%	85%	85%	85%	85%	
<b>2.4. Improve coverage of IPTp to reach all eligible pregnant women at ANC visits</b>										
27. Proportion of women who received at least 3 doses of IPTp for malaria during their last pregnancy	Outcome	22.4%	80%	80%	80%	80%	80%	80%	80%	
28. Proportion of pregnant women with malaria	Impact	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD	
29. Proportion of pregnant women with positive malaria test who received treatment	Outcome	n.a	95%	96%	97%	98%	98%	99%	100%	
<b>2.5 Ensure appropriate environmental management of vector control waste products</b>										
30. Waste management guidelines developed and disseminated	Process	n.a	n.a	0%	100%	0%	0%	0%	0%	
<b>2.6 Perform entomological monitoring and evaluation</b>										
31. Number of entomological sites conducting susceptibility studies	Process	21	29	41	41	41	41	41	41	
32. Number of entomological sites conducting density studies	Process	21	29	41	41	41	41	41	41	
33. Number of entomological sites conducting bio-assays (Quality control for IRS)	Process	21	29	25	30	30	30	30	30	
34. Number of entomological sites conducting bio-assays (Quality control for LLIN) + Durability	Process	6	6	6	6	6	6	6	6	
<b>2.7 Operationalize updated IVM strategy</b>										
35. Number of provinces that received the IVM strategy document	Process	0	0	11	0	11	0	0	0	
36. Number of districts that received the operational plan of the IVM strategy	Process	0	0	0	156	0	0	0	0	
37. Number of communities where environmental management activities are conducted	Process	0	0	11	11	11	11	11	11	
38. Proportion of targeted breeding sites that received larviciding	Outcome	n.a	n.a	0%	0%	10%	20%	30%	30%	
39. Number of structures receiving housing improvements	Process	n.a	n.a	0	400	400	400	400	400	
<b>Objective 3. To test 100% of suspected malaria cases and treat 100% of confirmed malaria cases at health facility and community level (APE), as per national guidelines, by 2022</b>										
40. Malaria test positivity rate	Impact	58%	56%	51%	47%	43%	40%	37%	34%	
41. Annual Blood Examination Rate	Impact	55%	58%	89%	118%	155%	161%	167%	167%	
42. Proportion of suspected cases tested for malaria at health facilities	Outcome	96%	97%	97%	98%	98%	99%	99%	100%	
43. Proportion of children <5 with fever in the last 2 weeks who received appropriate antimalarial treatment according to the national policy within 24 hours from onset of fever	Outcome	35.6	35.6	46	57	68	79	89	100	
44. Proportion of children <5 with fever in the past 2 weeks who had a finger or heel prick	Outcome	39.6	39.6	50	60	70	80	90	100	
45. Ratio of dispensed treatment and reported malaria cases	Outcome	n.a	119%	116%	113%	110%	106%	103%	100%	
<b>3.1 Ensure appropriate malaria case management at health facilities and communities</b>										
46. Proportion of inpatient malaria cases at health facilities that received appropriate antimalarial treatment according to the national guidelines	Outcome	n.a	95%	96%	97%	98%	98%	99%	100%	
47. Proportion of outpatient malaria cases at health facilities that received appropriate antimalarial treatment according to the national guidelines	Outcome	n.a	95%	96%	97%	98%	98%	99%	100%	
48. Proportion of malaria cases treated in the public sector that are confirmed with a parasitological diagnosis	Outcome	92%	98%	98%	99%	99%	99%	100%	100%	
49. Proportion of malaria cases treated at community level that are confirmed by a parasitological diagnosis	Outcome	88%	95%	96%	97%	98%	98%	99%	100%	
50. Number of Health Care Workers trained in malaria case management	Process	607	0	7500	7500	0	7500	7500	0	
51. Number of Community Health Workers refreshed in malaria case management	Process	n.a	n.a	0	1105	1172	1171	0	0	



Indicator	Indicator Type	Baseline 2015	Baseline 2016	Target 2017	Target 2018	Target 2019	Target 2020	Target 2021	Target 2022
<b>3.2. Ensure all required case management commodities are available at all service delivery points</b>									
52. Proportion of districts reporting no disruption of stock of RDTs	Outcome	n.a	n.a	80%	84%	88%	92%	96%	100%
53. Proportion of districts reporting no disruption of stock of ACTs	Outcome	n.a	n.a	80%	84%	88%	92%	96%	100%
54. Proportion of health facilities with no RDT stock out for more than 3 days in 3 months prior to survey	Outcome	n.a	n.a	90%	90%	90%	90%	90%	90%
55. Proportion of health facilities with no ACT stock out for more than 3 days in 3 months prior to survey	Outcome	n.a	n.a	90%	90%	90%	90%	90%	90%
56. Proportion of health facilities with no SP stock out for more than 3 days in 3 months prior to survey	Outcome	n.a	n.a	90%	90%	90%	90%	90%	90%
<b>3.3 Improve quality control and quality assurance of malaria diagnosis</b>									
57. Proportion of planned laboratory technicians trained in malaria diagnosis	Process	83	83	734	734	734	734	0	0
58. Proportion of planned laboratory technicians trained in EQA	Process	0	0	0	100%	0	100%	0	0
59. Proportion of laboratories performing external quality control for malaria microscopy and reporting results	Output	89	104	180	230	280	300	350	350
60. Proportion of laboratories that achieve ≥ 50% concordance between the results of microscopy cross checking	Outcome	71%	41%	49%	57%	66%	74%	82%	90%
<b>Objective 4. To implement a comprehensive and effective SBCC approach to ensure that at least 70% of people seek appropriate and timely healthcare and at least 85% of population uses an appropriate protection method, by 2022</b>									
61. Proportion of children under five years old with fever in the last two weeks for whom advice or treatment was sought	Outcome	62.70%	64%	65%	66%	67%	68%	69%	70%
62. Proportion of respondents over five years old with fever in the last two weeks for whom advice or treatment was sought	Outcome	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
63. Proportion of children <5 who slept under an ITN last night and/or in a dwelling sprayed with IRS in the past 12 months	Outcome	53.20%	59%	63%	67%	72%	76%	81%	85%
64. Proportion of children <5 who slept under an insecticide-treated net the previous night	Outcome	49.7%	49.7%	56%	61%	67%	73%	79%	85%
65. Proportion of pregnant women who slept under an ITN last night and/or in a dwelling sprayed with IRS in the past 12 months	Outcome	57.60%	62%	66%	70%	74%	77%	81%	85%
66. Proportion of pregnant women who slept under an ITN last night	Outcome	52.1%	52.1%	58%	63%	69%	74%	80%	85%
67. Proportion of population using an insecticide-treated net among those with access to an insecticide-treated net	Outcome	53.8%	62%	69%	77%	85%	85%	85%	85%
<b>4.1 Assess malaria knowledge, behaviour, practices and the effect of SBCC interventions</b>									
68. Proportion of planned SBCC studies implemented	Process	n.a	n.a	100%	100%	100%	100%	100%	100%
<b>4.2 Effectively plan SBCC interventions</b>									
69. Proportion of districts that received the SBCC strategy document and hold a meeting to disseminate the strategy	Process	n.a	n.a	0%	100%	100%	100%	100%	100%
70. Proportion of province with an annual SBCC operational plans that are consistent with the national SBCC strategy	Output	n.a	n.a	0%	100%	100%	100%	100%	100%
71. Number of participants trained on SBCC and communication strategies	Process	n.a	n.a	0	30	0	30	0	0
<b>4.3 Advocate and engage at all levels and with all relevant sectors</b>									
72. Number of malaria commemorative events, including LLIN and IRS campaign launches, held at all levels	Process	n.a	22	22	22	22	22	22	22
73. Number of individuals trained on the malaria message package developed	Process	n.a	n.a	0	565	0	565	0	0
<b>4.4 Increase demand, provision and utilization of quality malaria services</b>									
74. Number of job-aids distributed to the health facilities and APES	Process	n.a	n.a	0	14,400	0	17,500	0	0
75. Number of community events held related to malaria care-seeking	Process	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
76. Number of community radio broadcasts related to malaria care-seeking	Process	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD



Indicator	Indicator Type	Baseline 2015	Baseline 2016	Target 2017	Target 2018	Target 2019	Target 2020	Target 2021	Target 2022
77. Number of people reached by malaria information and education messages through APEs and health facilities	Process	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
78. Number of people reached by malaria information and education messages through home visits	Process	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
<b>4.5 Reinforce knowledge and influence social norms and behaviours for malaria prevention</b>									
79. Proportion of people who recall hearing or seeing a malaria message through communication channel XXX (reported by each specific communication channel)	Outcome	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
80. Proportion of target population who know/ can explain how malaria is prevented through the use of IRS and/or LLIN	Output	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
<b>Objective 5. Accelerate efforts towards malaria elimination, by implementing epidemiologically appropriate interventions in defined areas of low and very low transmission, by 2022</b>									
81. Number of districts in high transmission strata	Impact	n.a	n.a	81	61	27	21	14	11
82. Number of districts in moderate transmission strata	Impact	n.a	n.a	67	87	103	99	98	95
83. Number of districts in low transmission strata	Impact	n.a	n.a	7	7	20	27	35	41
84. Number of districts in very low transmission strata	Impact	n.a	n.a	0	0	5	8	8	8
<b>5.1 Establish flexible, effective and active epidemiological surveillance systems to support response</b>									
85. Proportion of confirmed malaria cases detected by healthcare workers, in target districts, notified through real-time	Output	n.a	0%	0%	0%	0%	25%	100%	100%
<b>5.2 Harmonize broad vector control strategies in defined areas, where regional commitments exist</b>									
86. Proportion of districts that are implementing cross border malaria activities according to jointly agreed plan	Process	n.a	0%	20%	40%	60%	80%	100%	100%
<b>5.3 Target interventions based on drivers of transmission, in defined areas</b>									
87. Case classification rate	Output	n.a	n.a	0%	0%	15%	30%	60%	75%
88. Proportion of active foci in elimination-targeted areas	Outcome	n.a	n.a	TBD	TBD	TBD	TBD	TBD	TBD
89. Foci classification rate	Output	n.a	n.a	0%	80%	80%	80%	100%	100%
90. Proportion of active foci responded to with appropriate response intervention, as per national guideline	Output	n.a	n.a	0%	15%	15%	30%	60%	75%
<b>5.4 Ensure financial sustainability of elimination efforts, based on evidence</b>									
91. Proportion of the prioritized budget funded	Output	n.a	28.4%	25.6%	22.8%	19.9%	17.1%	14.2%	11.4%
<b>Objective 6. Strengthen the malaria surveillance system so 100% of health facilities and districts are reporting complete, timely and quality data for evidence-based decision-making, at all levels of the health system by 2022</b>									
92. Proportion of districts that submit monthly SISMA reports	Output	n.a	94%	95%	96%	97%	98%	99%	100%
93. Completeness of health facility reporting	Output	n.a	n.a	100%	100%	100%	100%	100%	100%
94. Proportion of districts that submit timely monthly SISMA reports	Output	n.a	94%	95%	96%	97%	98%	99%	100%
95. Proportion districts that are submitting their data quality audits reports on a quarterly basis	Output	n.a	0%	0%	20%	40%	60%	80%	100%
<b>6.1. Improve malaria SM&amp;E capacity, at all levels</b>									
96. Proportion of provincial and district malaria focal points trained in malaria M&E	Process	n.a	0%	0%	100%	0%	0%	100%	0%
97. Proportion of quarterly malaria bulletins sent for all provinces	Process	n.a	0%	50%	100%	100%	100%	100%	100%
<b>6.2. Establish a Data Quality Assurance system</b>									
98. Proportion of districts implementing the DQA system	Output	n.a	0%	0%	0%	20%	40%	60%	100%
<b>6.3. Establish a comprehensive, integrated Malaria Information Storage System (iMISS)</b>									
99. Integrated malaria storage system established at central level	Process	n.a	0%	0%	100%	100%	100%	100%	100%
<b>6.4. Establish a system and strategy for outbreak responses in epidemic prone areas</b>									
100. Proportion of districts with trained teams for outbreak response	Process	n.a	0%	0%	100%	100%	100%	100%	100%
<b>6.5. Establish a system to ensure implementation and operational research are conducted and results used to inform program activities in real-time</b>									
101. Number of operational research studies conducted with NMCP approval	Output	n.a	n.a	3	6	3	1	4	1

16 Operational Plan

Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022							
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Objective 1	Strengthen programme management skills at all levels to effectively achieve the Strategic Plan objectives, by 2022																																
Strategic Intervention 1.1	Establish the NMCP organigram and ensure NMCP staff, at all levels, have the required capabilities to perform their roles																																
Activity 1.1.1	Review, update and extent to all levels, the NMCP needs assessment on required skills, resources																																
	Develop ToR for the NMCP needs assessment	To include other resources and not only HR (equipment, infra-structures)	Program Manager NMCP		Central level																												
	Hire a consultant to conduct the NMCP needs assessment	2 months - Include traveling to provinces and districts	Program Manager NMCP		Central level																												
	Review and update the NMCP needs assessment, at central level	Consultant	Consultant	Program Manager NMCP	Central level																												
	Conduct the NMCP needs assessment at provincial and district levels	Consultant - 15 days fieldwork	Consultant	Program Manager NMCP	Central level																												
	Disseminate the report within NMCP, MISAU and partners	Send via email or other ways	Program Manager NMCP		Central level																												
Activity 1.1.2	Review and approve NMCP organigram, defining clear roles and responsibilities																																
	Update the organigram and job descriptions, at central and provincial levels	Done by the consultant, as part of the NMCP needs assessment	Program Manager NMCP	Consultant	Central level																												
	Hold one meeting to review the findings of the needs assessment and approve NMCP organigram and job descriptions at central, provincial and district levels	1 day	Program Manager NMCP	Consultant	Central level																												
	Approve the NMCP organigram and job descriptions		Program Manager NMCP		Central level																												
	Disseminate the NMCP organigram and job descriptions		Program Manager NMCP		National																												
Activity 1.1.3	Recruit, reallocate and train for identified staffing gaps																																
	Fill the vacant positions identified in the NMCP needs assessment		Program Manager NMCP		National																												
	Attend short term trainings (all thematic areas, for specific identified gaps)	At least 4 trainings per year, 1 person per year	NMCP		Central level																												
	Attend conferences and international meetings (all thematic areas)	At least 4 conferences, 1 central level technician per conference, each year	NMCP		Central level																												
	Build capacity within the NMCP on research methodology	Participants: 10 Frequency: Once during this NSP Length: 3 days	NMCP		Central and Provincial levels																												
	Build capacity on program management for central, provincial and district teams	2 trainings during this NSP (2 years in row), 100 persons at each training with district, provincial and central level attendees; 1 week Adapt the WHO training	NMCP		Central, Province and District levels																												
Strategic Intervention 1.2	Ensure effectiveness of programme management																																
Activity 1.2.1	Ensure integrated planning and alignment of activities with other programmes and partners at all levels																																
	Create and disseminate a comprehensive folder with all the key NMCP documents	Update the LINK project folder, including guidelines, manuals, policies, etc. On dropbox	NMCP		Central level																												
	Establish a mechanism of cooperation with relevant programmes within the MISAU and partners	1 day meeting Once a year Participants: 15	NMCP		Central level																												
Activity 1.2.2	Develop and manage detailed annual work plans																																
	Hold Bi- annual Review meetings (provincial level balance meeting)	2 times a year - 2 day meeting District malaria focal points, Provincial malaria focal point, District Chief Doctors, NED or SMI district focal points	NMCP		Provincial Level																												
	Hold Malaria Annual Review Meeting (central level balance meeting)	Once a year- 3 days 100 persons	NMCP		Provincial Level																												









Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022			
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Objective 2	Provide, at least, 85% coverage of the population with a minimum of one vector control intervention, in every district of the country, by 2022																												
Strategic Intervention 2.1	Implement mass LLIN distribution campaigns to achieve universal coverage Will take place in 2017 and 2020																												
Activity 2.1.1	Coordinate, as appropriate, to ensure effective communications in support of mass LLIN distribution campaigns																												
	Provincial level engagement meeting		NMCP Provincial level		Provincial Level																								
	District level engagement meeting		NMCP District Level		District Level																								
	Produce information / reports of all activities that will be done daily/monthly and send it to the provincial governors		DDS		District Level																								
	Distribute the mobilization material during the distribution phase		NMCP provincial / district		Community Level																								
	District level post-campaign mobilization meeting		NMCP District Level		District Level																								
Activity 2.1.2	Supervise mass LLIN distribution campaigns monitoring activities																												
	Conduct supervision visits during household census	Specific supervision visits, separated from the integrated ones, at all levels: central to province and province to districts	NMCP		District Level																								
	Conduct supervision visits during LLINs distribution		NMCP		District Level																								
	Conduct supervision visits post campaign		NMCP		District Level																								
Activity 2.1.3	Plan and implement mass LLIN distribution campaigns																												
2.1.3.1	Conduct national quantification, procurement and district level delivery of LLINs																												
	Send data from previous Household Census for central level analysis		NMCP Provincial Focal Point		Provincial level																								
	Conduct analysis on total population targeted for LLIN distribution using National Census data + Household Census		LLIN TWG	National Institute of Statistics	Provincial level																								
	Use GF software to quantify the needed number of LLINs		NMCP GF Procurement Unit		Central level																								
	Select manufacturers and procure LLINs	Selection and procurement is done by the GF Procurement Unit	GF Procurement Unit through PPM		Central level																								
	Arrival of LLINs at regional delivery points	3 different delivery points, in Maputo, Beira, Nacala, one government warehouse in each region	NMCP Vector Control Unit		Regional level																								
	Delivery and storage at district level	No transport costs; contract with LLIN supplier includes delivery at district level	NMCP Vector Control Unit		District level																								
	Conduct arrival testing for quality control of LLINs	To South Africa or another country with lab certification	NMCP Vector Control Unit		Central level																								
	Transport and store the LLINs at province level		GF SC Sub Recipient		Provincial Level																								
2.1.3.2	Implement mass LLIN distribution campaigns Provincial and district level activities																												
	Provincial microplanning meeting and implementation training	The meeting aims at reviewing the schedule and calculating the approximate HR/ time needed to complete the household census + districts level budget + estimations on needed numbers of LLINs per administrative post and locality + estimations on needed satellite warehouses	NMCP Provincial and NMCP District	NMCP Central	Provincial Level																								
	Validate the outputs of the microplanning meeting and draft the implementation plan	Validate the final number of team, number of cars, number of boats needed. Adjustment of the microplan based on the household census results (2/3 weeks)	NMCP Provincial		Provincial Level																								
	Hire the surveyors	Surveyors are hired from the community	NMCP Provincial Focal Point		Community Level																								
	District ToT for surveyors	2 days Number: ≈ 48000 surveyors			District Level																								
	Training of surveyors	On Household Census methodology Number of surveyors depends on population. Trainers will go to the community. Number: ≈48000 surveyors Length: 2 days	NMCP Provincial Focal Point		Community Level																								
	Conduct Household Census, at community level	Registration time depends on size of the population Around 7 days per district	NMCP Provincial Focal Point		Community Level																								

	Train data analysts at district and provincial level	Length: 2 days Number: 1 per district	NMCP Provincial Focal Point		Provincial and district levels																		
	Clean the survey data, analyse the data and compare the survey population results and the census data	Data analysts conduct the analysis. Forms sent to district level where the analysis is done. Takes about 7-8 days to complete.	District Data Analyst	NMCP Provincial Focal Point	District Level																		
	Readjust the plan based on the findings of the Household Census results / amend the microplanning	2 days for readjustment of the plan	NMCP District Focal Point		Provincial Level																		
	Send the findings of the analysis with NMCP, for validation	Analysis is undertaken at district level with support from province (validation of the data, no meeting). Overall, the census process takes about 1 month	NMCP Provincial Focal Point		Provincial Level																		
	Write distribution plan	Using the output of the microplanning + design timetable meeting	NMCP provincial level		Provincial Level																		
	Training satellite warehouses keepers	7 participants per district Length: 1 day	NMCP Provincial		Provincial Level																		
	Transport LLINs to satellite warehouses	From district level to administrative post level			District Level																		
	Transport LLINs to distribution points	From the satellite warehouses to each distribution point; done on the day of the distribution			District Level																		
	Training the LLIN distribution teams	Participants: all implementers- warehouse keepers, chief doctors, etc. 7 persons per districts. Number: depends on the size of the province, approximately 42 people in a training venue Length: 4 day training	NMCP provincial level		Community Level																		
	Distribution of LLINs at community delivery points	Length: distribution takes 5 days	District NMCP		Community Level																		
	Return the leftover LLINs	To the provincial warehouses	District NMCP		District level																		
	Post- campaign district review meeting	1 DPS + 3 SR + DDS participants (data analyst + distribution teams supervisors, team leaders, etc.)			District level																		
	Post- campaign provincial review meeting	DPS staff (10) + DDS staff (3 per district)			Provincial level																		
	Post- campaign national review meeting	2 days; central level (10) + partners (7) + 4 people from each province (3 from each DPS+ 1 focal point from the best district)			Central level																		
Strategic Intervention 2.2	Implement continuous LLINs distribution to sustain universal coverage																						
Activity 2.2.1	Review current routine LLINs distribution through ANC																						
	Develop ToR for assessment of LLINs distribution through ANC visits	Need to include an evaluation and recommendations on what are the best options for transport and delivery at health facility level	NMCP		Central level																		
	Hire consultant to conduct assessment of LLINs distribution through ANC visits		NMCP		Central level																		
	Conduct assessment of LLINs distribution through ANC visits	For 2 months, including field visits to 3 provinces (1 per region) Once during this NSP	Consultant		Provincial Level																		
	Develop report	Consultant output	Consultant		Central level																		
	Hold meeting to disseminate report		NMCP	Consultant	Central level																		
	Use findings from assessment to develop action plan to improve ANC distribution efficacy		NMCP+partners	TWG + Partners	Central level																		
Activity 2.2.2	Develop, implement and monitor strategies to improve efficiency of ANC distributions																						
	Calculate number of pregnant women targeted at ANC		MCH Department	NMCP Surveillance/M&E Team	Central Level																		
	Hold meeting between MCH and NMCP to discuss LLINs distribution at ANC visits	1 day, central level meeting	CMAM / NMCP		Central Level																		
	Procure LLINs for routine ANC distribution	LLINs procured and sent to provincial level by PMI/PSM. Procurement takes 1 year. NMCP sends the needed quantities to be procured to PMI/PSM, who then acquire them based on available budget	PMI/PSM		Central Level																		
	Arrival of the LLINs at the 3 regional warehouses	In Nacaala, Beira and Maputo. Currently, supported by PMI/PSM	PMI/PSM		Regional Level																		
	Conduct arrival testing quality control of procured LLINs for routine ANC distribution	To South Africa or another country with lab certification			Central Level																		
	Develop ToR to externalise the distribution of LLINs, from province to the health facility level		NMCP Vector Control Unit		Central Level																		
	Transport LLINs to provincial level	PMI/PSM is ensuring transport to every province, quarterly. There are transport challenges by road so would be better to consider boat transportation	Hired Company / Contractor and partners		Provincial Level																		









Activity 2.6.5 Implement routine vector density, behavior & other entomological monitoring activities																						
	Conduct central level entomological supervision visits	Specific entomological supervision visits, separated from the integrated supervision visits; annual to every province	NMCP Vector Control Unit		Central Level																	
	Monthly monitoring of mosquitoes density	To be conducted in all provinces	NMCP		Provincial Level																	
	Monitoring mosquito behavior	To be conducted during central level entomology supervision visits in some selected sites	NMCP		Central Level																	
	Annual evaluation of residual effect of insecticide used for IRS (WHO Cone Bioassays)	7 months after IRS takes place; in every sprayed district	NMCP Vector Control Unit		Provincial Level																	
Activity 2.6.6 Conduct assessment of novel entomological surveillance framework																						
	Implement new pilot entomological surveillance framework	In Maputo and Inhambane provinces	UCSF	CISM	Maputo and Inhambane																	
	Evaluate cost-effectiveness of new entomological surveillance framework	Likely after 1-2 years of data collected through pilot activities	UCSF	CISM	Central Level																	
	Make recommendations on the adoption of the new entomological surveillance framework	Adoption would mean entomological surveillance in the country follows the new framework	UCSF	CISM	Central Level																	
Strategic Intervention 2.7 Operationalise updated IVM strategy																						
Activity 2.7.1 Print and disseminate the IVM strategy and its Implementation Plan																						
2.7.1.1 Print and disseminate the IVM strategy																						
	Printing of IVM strategy		NMCP Vector Control Team		Central Level																	
	Dissemination of the IVM strategy	During the annual malaria meeting and soft copies sent via email	NMCP Vector Control Team		Central Level																	
	Update IVM strategy	Done by the VC TWG, led by consultant	Consultant		Central Level																	
2.7.1.2 Hold TWG meeting to discuss latest draft and finalise the Operational Plan of the IVM strategy																						
	Printing and dissemination of the Operational Plan of the IVM strategy	Disseminate during the annual malaria meeting and soft copies via email	NMCP Vector Control Team		Central Level																	
Activity 2.7.2 Implement Larval Source Management (LSM) as supplementary intervention to reduce to minimum mosquito density																						
2.7.2.1 Conduct mapping of potential breeding sites / larval sources																						
	Implement operational research to map potential breeding sites	Pilot mapping in selected areas that have low malaria transmission rate. Lead by CISM, INS and other organizations conducting /supporting operational research studies	Partners	NMCP	District level																	
	Expand breeding sites mapping to other low malaria transmission areas	Based on findings of the operational research	Partners	NMCP	District level																	
2.7.2.2 Assess and potentially implement environmental management activities																						
	Collaborate with Environmental Health Department to ensure implementation of malaria activities		NMCP Vector Control Team	Environmental Health Department	District level																	
	Select communities based on malaria prevalence and environmental conditions		NMCP Vector Control Team	Environmental Health Department	District level																	
	Conduct environmental management activities in targeted areas	Eventually, in 1 community per province (11 provinces) each year	NMCP Vector Control Team		District level																	
2.7.2.3 Assess and potentially conduct larviciding																						
	Coordinate with other departments of MISAU	To assess potential integration with other disease areas	Entomology TWG		Mpt cidade Matola, Quelimane, Beira e Nampula																	
	Conduct larviciding in identified areas		NMCP Vector Control Team		Mpt cidade Matola, Quelimane, Beira e Nampula																	
	Evaluate results from larviciding application	2 years after	NMCP Vector Control Team		Mpt cidade Matola, Quelimane, Beira e Nampula																	
Activity 2.7.3 Use evidence to define and implement new innovative vector control strategies																						
	Review evidence on new vector control strategies	With TA from partners	NMCP Vector Control Team		Central level																	
	Hold meeting to discuss and decide on new innovative vector control strategies to implement		NMCP Vector Control Team	VC TWG	Central level																	
	Implement housing improvements in targeted areas	Housing improvements to be implemented in communities without IRS or LLINs	Contractors / Partners		District level																	
	Implement other new innovative vector control strategies in targeted areas		NMCP Vector Control Team		District level																	
	Monitor new vector control strategies		NMCP Vector Control Team		District level																	
	Conduct external evaluation of impact of new vector control strategies		NMCP Vector Control Team	Partners	Central Level																	

Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022			
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Objective 3	To test 100% of suspected malaria cases and treat 100% of confirmed malaria cases at health facility and community level (APE), as per national guidelines, by 2022																												
Strategic Intervention 3.1	Ensure appropriate malaria case management at health facilities and communities																												
Activity 3.1.1	Train health care workers, APEs, PMT and private sector staff, in malaria case management																												
3.1.1.1	<i>Train health care workers</i>																												
	Finalize SOPs and national malaria case management guidelines		Case Management TWG		Central level																								
	Update malaria case management training manuals/materials	Twice during this NSP	NMCP Case Management Team	Partners	Central level																								
	Print and distribute national malaria case management guidelines	Number: 7500; Twice during this NSP	NMCP Case Management Team	Partners	Central level																								
	Print and distribute SOPs	4 SOPs: use of injectable AS, MiP, RDT procedure and case management practices; 5 of each per health facility; 2 times over the next 5 years; Laminated copies - A3 format, colored	NMCP Case Management Team	Partners	Central level																								
	Print TOT manual	Twice during this NSP; 30 copies	NMCP Case Management Team	Partners	Central level																								
	Print participants manual	Twice during this NSP; 14500 copies	NMCP Case Management Team	Partners	Central level																								
	Conduct central level TOT malaria case management training	Twice during this NSP; 22 provincial trainees for 4 days	NMCP Case Management Team	Partners	Central level																								
	Cascade malaria case management training at provincial level	5 days; 25 persons per province; Twice during this NSP	NMCP Case Management Team	Partners	Provincial level																								
	Cascade malaria case management training at district level	14500 Healthcare workers, including district chief doctors, malaria focal points, new hires, lab and pharmacy, for 4 days; Twice during this NSP	NMCP Case Management Team	Partners	District level																								
3.1.1.2	<i>Train community health workers (APEs)</i>																												
	Support initial training of APEs, in malaria case management		APEs Program	NMCP Case Management Team	Community Level																								
	Hold coordination meetings with APEs department, prior to the refresher training	Central level; 1/2 day	NMCP		Central Level																								
	Review and update the APEs malaria training material	Add rectal artesunate SOP	NMCP Case Management Team		Central Level																								
	Print the APEs malaria training materials		NMCP Case Management Team		Central Level																								
	Conduct refresher training of APEs in malaria case management	Include M&E and SBCC component Refresh all currently existing 3500 APE, once during this NSP, phased over 3 years	APEs Program	NMCP Case Management Team	District Level																								
3.1.1.3	<i>Train Traditional Medicine Practitioners (PMT)</i>																												
	Train PMT in malaria case management	1050 PMT to be trained once during this NSP, in 7 provinces; Provincial level 5 day training	IMT Program	NMCP Case Management Team	Provincial level																								
3.1.1.4	<i>Train private sector staff</i>																												
	Create a national plan for training of private sector staff, in malaria case management		NMCP Case Management Team		Central level																								

	invite private sector staff to the public sector central level TOT malaria case management training		NMCP Case Management Team		Central level															
	Conduct regional cascade training of private sector staff	Regional training (3 total); for 1 day	Private Sector		Regional level															
<b>Activity 3.1.2</b>	<b>Undertake formative supervision / on-the-job training</b>																			
<i>3.1.2.1</i>	<i>Supervision at health facility level</i>																			
	Participate in the central level integrated supportive supervision	Twice a year, to every province Multidisciplinary team of 4 central level persons (heads of CM, SM&E, SBCC and PM)	NMCP		Provincial Level															
	Participate in the provincial level integrated supportive supervision	4 provincial level persons (malaria focal point, M&E, Community health- SESP and provincial chief doctor); 4 times a year, to every district of every province	NMCP		District level															
	Participate in the district level integrated supportive supervision	Every 2 months, to every Health Facility of every district in every province; 4 district level staff (malaria focal point, district chief doctor, pharmacy)	NMCP		HF level															
	Conduct <i>ad hoc</i> on-the-job trainings at health facility level	For HF identified as not performing according to national guidelines	NMCP		HF level															
<i>3.1.2.2</i>	<i>Mentorship and supervision of APEs and PMT</i>																			
	Train HF staff in APE supervision	District level training; Every 2 years	NMCP		District level															
	Support bi-annual district level health facility supervision of APEs	Support with per diem, 2 times a year for all APEs Health facility supervisors	NMCP	APE Program	HF level															
	Support annual central level supervision visits	Aligned with APE program	NMCP	APE Program	Provincial Level															
	Conduct supervision visits to PMT	4 districts per province; 7 provinces, 90 PMT in every province; central level (NMCP + IMT) and provincial IMT focal point	IMT Program	NMCP Case Management Team	Provincial + District levels															
<b>Activity 3.1.3</b>	<b>Ensure appropriate treatment of severe malaria using injectable artesunate</b>																			
	Participate in supervision visits	Will be done as part of the integrated central and provincial level supervision visits	NMCP		Provincial / District / HF levels															
	Provide on-the-job trainings	Will be done as part of the routine on-the-job trainings	NMCP		Provincial / District / HF levels															
<b>Activity 3.1.4</b>	<b>Conduct periodic Malaria Treatment and Mortality audits</b>																			
<i>3.1.4.1</i>	<i>Malaria Treatment Audits</i>																			
	Print checklists for treatment audits		NMCP	Partners	Central level															
	Conduct annual health facility level treatment audits	To be conducted by an external team, in 1 province (2 districts in each) of every region (3)	NMCP	Partners	Central level															
	Write and disseminate the report	15 copies per HF, in average	NMCP	Partners	Central level															
<i>3.1.4.2</i>	<i>Malaria Mortality Audits</i>																			
	Develop ToR to guide implementation of mortality audits		Case Management TWG		Central level															
	Develop tools to implement the mortality audits		Case Management TWG		Central level															
	Review mortality audits tools		Case Management TWG		Central level															
	Print and disseminate tools to implement the mortality audits	2000 copies	NMCP Case Management Team		Central level															
	Train external team on mortality audits	External team will conduct the mortality audits 6 people- 2 NMCP + 4 TBD; 3 days central level training	NMCP Case Management Team		Central level															
	Conduct bi-annual health facility mortality audits	Twice a year, in 3 districts of 6 provinces	NMCP	Partners	Central level															
<b>Activity 3.1.5</b>	<b>Strengthen the pharmacovigilance system</b>																			
	Print and distribute pharmacovigilance forms, to all HF	5000 copies; Twice during this NSP	Pharmacy Department		Central level															
	Ensure the forms are fully and properly completed	Through the trainings and integrated supervision visits	Pharmacy Department		HF level															
	Collect forms, analyze data and write report		Pharmacy Department		HF level															
<b>Activity 3.1.6</b>	<b>Implement a fever case management algorithm</b>																			

	Lead coordination with INS and other stakeholders for the finalization, training and implementation of the fever case management algorithm		NMCP	INS	Central level																																															
	Disseminate the draft of the algorithm and get feedback from provinces	Case management TWG Via email	NMCP	INS	Central level																																															
	Hold meeting to review draft and agree on final version of algorithm to be implemented	Participants: 1 person per province + central level staff (19); for 2 days	NMCP	INS	Central level																																															
	Print the algorithm	1 per health facility (2000 copies); Twice during this NSP	NMCP	INS	Central level																																															
	Conduct district level training on fever case management algorithm	2 days training of all district chief doctors and they will disseminate the algorithm to all HCW, through the integrated supervision visits	NMCP	INS	Provincial Level																																															
<i>new line</i>	Dissemination of the fever case management algorithm to all health care workers	Done during the district level integrated supervision visits																																																		
	Hold meeting to review and adapt the algorithm	Based on data received from the surveillance system; 30 participants; Every 2 years: 2019, 2021	NMCP	INS	Central level																																															
	Conduct supervision visits to monitor implementation of the fever case management algorithm	At the same time than the integrated central and provincial level supervision visits	NMCP	INS	Provincial / District / HF levels																																															
	Analyse and disseminate fever related data from surveillance system	To be conducted by INS and CM TWG	NMCP	INS	Central level																																															
Activity 3.1.7	Establish a coordination mechanism to improve collaboration with APEs programme																																																			
	Hold annual national review meeting	Participants: 1 APE focal point and 1 Malaria focal point per province + 15 central level staff (NMCP + APE)	NMCP	APE Program	National level																																															
	Hold quarterly central level coordination meetings	Between the APEs programme, CMAM and NMCP To share data, coordinate trainings, align activities; 15 persons	NMCP	APE Program CMAM	Central level																																															
	Hold monthly provincial coordination meetings	Participants: District malaria focal point, district APEs focal point, pharmacy	NMCP	APE Program	Provincial level																																															
Activity 3.1.8	Advocate for the rational distribution of APEs to optimise existing resources and improve access to healthcare																																																			
	Hold central level meeting to review distribution of additional APEs	Between NMCP, APE program and their partners	NMCP/ APE program	Partners	Central level																																															
	Support allocation of additional APEs	Highlight placement of APEs for the greatest impact on malaria burden	NMCP	Partners	Central level																																															
Strategic Intervention 3.2	Ensure all required case management commodities are available at all service delivery points																																																			
Activity 3.2.1	Implement logistics planning for adequate forecasting, accurate quantification, procurement (RDTs, medicines) and timely distribution																																																			
	Collect and analyse data for forecasting and quantification	NMCP coordinate the group, CMAM is responsible for providing the data. DNAM, DCL and partners to support process of quantification Process takes about 2 weeks and includes all meetings mentioned below	NMCP and CMAM	DNAM, DCL + partners	Central level																																															
	Meet to review the findings of the data analysis	Assumptions discussion (25 persons); 1 day	PMI/ PSM	NMCP, CMAM	Central level																																															
	Hold meeting for exercise of quantification	Exercise of quantification (15 persons); 1 week	PMI/ PSM	NMCP, CMAM	Central level																																															
	Hold meeting to present the results of quantification exercise	Present the results and get final agreement (20 persons); 1 day	PMI/ PSM		Central level																																															
	Update the annual supply plan	Using the result of the quantification exercise	PMI/ PSM		Central level																																															
	Conduct gap analysis meeting	1/2 day meeting (20 persons)	PMI/ PSM	NMCP, CMAM	Central level																																															
	Procure Case Management commodities	RDTs, ACTs, SP, QNN, ASAQ	PMI-PSM/ GFATM/ NMCP/ CMAM		Central level																																															
	Procure laboratory consumables		GFATM	NMCP, CMAM	Central level																																															
	Deliver commodities to central level warehouse		PMI/PSM/GFATM/NMCP/ CMAM		Central level																																															

	Define quantities of APEs kits (push system) and HF kits (pull system)		PMI/ PSM		Central level																						
	Prepare the APEs Kits - Hire team to prepare kits		PMI/ PSM	APE Program	Central level																						
	Prepare the APEs Kits - Procure boxes		PMI/ PSM	APE Program	Central level																						
	Deliver commodities to provincial level		PMI/ PSM		Provincial level																						
	Procure/Rent vehicles to transport commodities	Cost captured under Objective 1	NMCP		District level																						
	Distribute the commodities from provincial to district level		DPC		District level																						
	Distribute the commodities from district to health facility level		DPC		HF level																						
<b>Activity 3.2.2</b>	<b>Monitor the logistics processes for all case management commodities</b>																										
	Conduct regular LMIS data analysis	In collaboration with CMAM; done during the monthly Medicines TWG meetings	Case Management TWG		Central level																						
	Support procurement processes for all commodities	In collaboration with GF unit and UGEA	NMCP		Central level																						
<b>Activity 3.2.3</b>	<b>Implement efficient stock management for case management commodities</b>																										
	Ensure stocks of daily and monthly commodities consumption forms	Daily consumptions registers forms Monthly summary form (for districts, APEs, and health facilities)	CMAM	NMCP Case Management Team	Central level																						
	Train district and provincial technicians on supply chain and stock management	5 days;1 training per province; Twice during this NSP	NMCP Case Management Team	CMAM	Provincial Level																						
<b>Strategic Intervention 3.3</b>	<b>Improve quality control and quality assurance of malaria diagnosis</b>																										
<b>Activity 3.3.1</b>	<b>Establish a structure to improve coordination between NMCP, CMAM, INS and DCL</b>																										
	Hold annual central level action plan meeting	To plan activities and strategies with representatives of other MISAU departments, share the plans and ensure participation; 3 days; 100 participants, including 3 representatives per district + private sector	NMCP	Provincial and District representatives	Central level																						
	Develop and disseminate report		NMCP CM TWG		Central level																						
	Hold annual provincial level coordination meeting	Participants: provincial pharmacy, provincial malaria focal point, district malaria focal point, district labs, district chief doctors + partners + private sector; 2 days	NMCP	CMAM, INS and the Lab Department Private sector	Central level																						
	Develop and disseminate report		NMCP	CMAM, INS and the Lab Department Private sector	Central level																						
	Create provincial Malaria Diagnostic Quality task forces	To implement and coordinate malaria diagnostic QA activities; meet regularly, as needed; Composed by: provincial lab supervisor, provincial malaria diagnostic focal point, provincial lab advisor, INS provincial focal point, provincial community health responsible, provincial malaria diagnostic technical group	DPS		Provincial level																						
	Hold annual district level meetings	Meeting with district malaria focal points, district labs representatives, partners and private sector; 1 day in each district	District Focal Points	Laboratory Department Private Sector	District level																						
	Develop and disseminate report		District Focal Points		District level																						
<b>Activity 3.3.2</b>	<b>Finalize guiding documents to establish a Malaria Diagnosis Quality Assurance system</b>																										
<b>3.3.2.1</b>	<b>Review and disseminate Guidelines for Malaria Diagnosis Quality Assurance</b>																										
	Conduct an external review of the QA Guidelines	MOH advisor/mentor to review the guidelines, as well as WHO + TA from partners	Consultant		Central level																						





Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022					
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Objective 4	To implement a comprehensive and effective SBCC approach to ensure that at least 70% of people seek appropriate and timely healthcare and at least 85% of the population uses an appropriate protection method by 2022																														
Strategic Intervention 4.1	Assess malaria knowledge, behaviour, practices and the effect of SBCC interventions																														
Activity 4.1.1	Conduct a comprehensive national level SBCC assessment																														
	Conduct mapping of new SBCC stakeholders	e.g. social scientists, communications professionals, private sector, and research institutions; Twice during this NSP	NMCP Health Promotion Unit		Central level																										
	Develop MoU for each new SBCC stakeholder		NMCP Health Promotion Unit		Central level																										
	Invite the new identified stakeholders to the SBCC TWG meetings	5 institutions CISM/INS/Faculty of Arts/Institution of research in Beira, Zambezia and Cabo Delgado; final number will be available after the mapping	NMCP Health Promotion Unit	CISM/INS/Faculty of Arts/Institution of research in Beira, Zambezia and Cabo Delgado.	Central level																										
	Conduct a national level SBCC assessment	Hire a consultant for 3 months; Map all malaria SBCC partners and all existing communication channels to compile and analyse national best practices, existing research and lessons learned	NMCP Health Promotion Unit		Central level																										
	Conduct a literature review of the existing SBCC research studies	Including reports from partners	Consultant		Central level																										
	Conduct a field assessment on existing SBCC interventions	Including information about existing SBCC implementing partners, data collected and data reporting flow and eventual opportunities to report through the IMISS	Consultant / NMCP		Provincial level																										
	Create a central repository of all SBCC relevant publications		Consultant		Central level																										
	Hold a SBCC TWG to share draft report and get feedback		Consultant		Central level																										
	Finalize and disseminate the report		Consultant		Central level																										
Activity 4.1.2	Coordinate for the inclusion of standardized SBCC indicators in national surveys																														
	Define standardized SBCC indicators		NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
	Hold a meeting to present the standardized SBCC indicators and get feedback		NMCP + INS + INE	NMCP M&E Team	Central level																										
	Attend the planning meetings of the national surveys		NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
	Participate in the TOT of the national survey teams	To provide details on the indicators	NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
	Support / Participate in the analysis of the indicators collected through the national surveys		NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
Activity 4.1.3	Coordinate the inclusion of standardized SBCC indicators in malaria partners work plans, baseline surveys and reports																														
	Hold a meeting to present the standardized SBCC indicators and get feedback		NMCP Health Promotion Unit	Partners	Central level																										
	Request partners SBCC specific workplans and reports		NMCP Health Promotion Unit	Partners	Central level																										
	Ensure inclusion of SBCC and the use of the standardized indicators definitions in the partners' evaluations	Receiving and reviewing evaluations protocol	NMCP Health Promotion Unit	NMCP M&E Team Partners	Central level																										
Activity 4.1.4	Determine a prioritized SBCC research agenda																														
	Utilize the findings of the SBCC assessment to identify research gaps		NMCP Health Promotion Unit		Central level																										
	Develop and share a specific SBCC research agenda		SBCC TWG		Central level																										
	Ensure collaborative partnerships with INS and other research and higher education institutes	With INS and other research and higher education institutes, as well as partners Done during the SBCC TWG meetings	SBCC TWG	INS	Central level																										
	Coordinate the research to take place	Done during the SBCC TWG meetings	SBCC TWG	INS / Partners / Research Institutes / NMCP	Central level																										
Activity 4.1.5	Plan and implement the prioritized SBCC research agenda																														
	Support the planning and implementation of the SBCC research agenda	Specialty the MIS/KAP surveys, Gender norms study, IRS study, LLIN usage study, etc	NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
	Ensure that SBCC research results are shared & used to adapt SBCC approaches, as necessary		NMCP Health Promotion Unit	NMCP M&E Team	Central level																										
Strategic Intervention 4.2	Effectively plan SBCC interventions																														
Activity 4.2.1	Review and update existing national SBCC strategy																														
	Develop ToR to review and update SBCC strategy	With TA from partners; Once during this NSP	NMCP Health Promotion Unit		Central level																										
	Hold central level separate meetings with each partner		Consultant	NMCP Health Promotion Unit	Central level																										
	Engage with provinces to discuss SBCC strategy and receive feedback	Including consultation visits to 3 provinces	Consultant	NMCP Health Promotion Unit	Provincial Level																										
	Write and share reviewed SBCC strategy		Consultant	NMCP Health Promotion Unit	Central level																										
	Receive feedback from partners and NMCP and update the SBCC strategy		Consultant	NMCP Health Promotion Unit	Central level																										
	Hold central level engagement meeting with partners and provinces	To discuss the reviewed strategy; 2 days; 30 participants	Consultant	NMCP Health Promotion Unit	Central level																										
	Finalise and translate the SBCC strategy		Consultant	NMCP Health Promotion Unit	Central level																										
	Print the reviewed SBCC strategy	500 copies	NMCP Health Promotion Unit		Central level																										
	Conduct central level ToT on SBCC strategy	5 days; 30 persons from provinces; Twice during this NSP	NMCP Health Promotion Unit	Partners	Provincial level																										
Activity 4.2.2	Cost updated national SBCC strategy and mobilise required resources																														
	Cost the SBCC strategy	With TA from partners	NMCP Health Promotion Unit		Central level																										



	Conduct a gap analysis	With TA from partners	NMCP Health Promotion Unit		Central level															
	Mobilise resources for the implementation of the SBCC strategy		NMCP Program manager	NMCP Health Promotion Unit	Central level															
Activity 4.2.3	Develop annual SBCC operational plans that are consistent with the national updated SBCC strategy																			
	Compile the partners workplans and harmonize with the national malaria and national SBCC strategies		NMCP Health Promotion Unit		Central level															
	Develop a national level workplan of the SBCC activities	Include calendar, frequency of interventions, etc.	NMCP Health Promotion Unit		Central level															
	Disseminate the national workplan to the provinces and districts	Through soft copy	NMCP Health Promotion Unit		Central level															
	Develop annual SBCC workplans, in each province	Done during the provincial planning meeting	DPS	NMCP Health Promotion Unit	Provincial level															
	Develop annual SBCC workplans, in each district	Done during the district planning meeting	DDS	NMCP Health Promotion Unit	District Level															
Activity 4.2.4	Conduct regular SBCC coordination meetings, at central and provincial levels																			
	Conduct monthly coordination meetings, at central level		SBCC TWG		Central Level															
	Establish and hold quarterly SBCC TWG meetings, in all provinces	Led by provincial malaria focal point or community health focal point	Provincial malaria Focal Point / Community Health focal point	NMCP Health Promotion Unit	Provincial Level															
Activity 4.2.5	Strengthen capacity for planning, supervision, monitoring and evaluation of SBCC interventions																			
	Develop training material on M&E for SBCC		SBCC TWG		Central level															
	Disseminate the training material on M&E for SBCC	During the M&E training (activity 6.1.2)	NMCP M&E Team	NMCP Health Promotion Unit	Central level															
	Review and print the SBCC training material	SBCC material to be used at HF level: case management, IPTp, Vector Control, etc; 30 copies; Twice during this NSP	SBCC TWG		Central level															
	Conduct SBCC training	Participant: 30 participants (communication officers and managers, include 11 DEPROS provincial staff + 11 malaria focal points); every 2 years; for 5 days	NMCP Health Promotion Unit		Central level															
	Conduct training for SBCC supervisors	Participant: 30 participants (communication officers and managers, include 11 DEPROS provincial staff + 11 malaria focal points); Once during this NSP	NMCP Health Promotion Unit		Central level															
Strategic Intervention 4.3	Advocate and engage at all levels and with all relevant sectors																			
Activity 4.3.1	Engage with other Government sectors																			
	Hold stakeholders engagement meetings at central level	0.5 day meeting with 15 people (including representatives from other ministries); 2 meetings each year	NMCP Health Promotion Unit		Central level															
	Hold stakeholders engagement meetings at provincial level	0.5 day meeting with 15 people (including representatives from other ministries); 2 meetings each year	NMCP Health Promotion Unit	Provincial team	Provincial Level															
	Invite other relevant government sectors to the SBCC TWG meetings		NMCP Health Promotion Unit		Central level															
	Annual meeting with Ministry of Education	To coordinate the inclusion of malaria messages and involvement in commemorative events, dramas, etc; 0.5 day meeting with 10 people	NMCP Health Promotion Unit	Ministry of Education	Central level															
Activity 4.3.2	Engage with the Private sector																			
	Conduct mapping of the private companies supporting malaria activities		SBCC TWG		Central level															
	Develop a plan for private sector engagement		SBCC TWG		Central level															
	Hold engagement meetings at central level	0.5 day meeting with 5 people; 5 meetings each year	NMCP Health Promotion Unit	SBCC TWG Private sector	Central level															
	Hold engagement meetings at provincial level	Starting in 2019; 0.5 day meeting with 5 people; 4 meetings each year	NMCP Health Promotion Unit	Provincial team Private sector	Provincial Level															
	Invite relevant private sector representatives to SBCC TWG meetings		SBCC TWG		Central level															
Activity 4.3.3	Celebrate malaria commemorative events, at all levels																			
	Annual central level commemoration of World Malaria Day	Central commemoration in a different location each year	SBCC TWG	District team	District level															
	Annual provincial level commemoration of World Malaria Day	In every province	SBCC TWG	Provincial team	Provincial Level															
	Attend the annual SADC Malaria Day event, in a SADC host country		NMCP		Neighboring Country															
	Annual central level event of SADC Malaria Day		NMCP Health Promotion Unit	District team	District level															
	Annual provincial level event of SADC Malaria Day		NMCP Health Promotion Unit	Provincial team	Provincial Level															
	Annual IRS Campaign launch	One in every district targeted for IRS	NMCP Health Promotion Unit	District team	District level															
	Mass LLIN distribution campaign launch		NMCP Health Promotion Unit	Provincial team + District team	Provincial Level															
Activity 4.3.4	Engagement of opinion leaders, from community to central level																			
	Identify influent opinion leaders across the country	Namely, community and religious leaders, journalists, politicians, etc. Including criteria for opinion leader selection and definition of profiles	SBCC TWG		Central level															
	Develop SBCC materials for opinion leaders		SBCC TWG		Central level															
	Produce, procure and disseminate SBCC materials for opinion leaders	E.g., malaria factsheets 250 factsheets; A4, 2 pages	NMCP Health Promotion Unit		Central level															
	Conduct provincial level SBCC trainings for journalists		NMCP Health Promotion Unit		Provincial Level															
	Conduct provincial level SBCC trainings for opinion leaders		NMCP Health Promotion Unit		Provincial Level															
Activity 4.3.5	Ensure consistent and quality dissemination, visibility and sharing of the national malaria response																			
	Develop advocacy material with highlights of the malaria interventions		NMCP Health Promotion Unit		Central level															
	Print advocacy material	Number of copies: 100	NMCP Health Promotion Unit		Central level															
	Disseminate the advocacy material		NMCP Health Promotion Unit		Central level															

	Develop a template for provincial level SBCC reports		NMCP Health Promotion Unit	Partners	Central level																			
	Participate in the annual RBM meetings		NMCP Health Promotion Unit		Central level																			
	Hold monthly coordination SBCC phone calls		NMCP Health Promotion Unit		National																			
	Central level coordination annual SBCC meeting	2 days meeting, including partners Number of participants: 40 (22 from provinces; malaria focal point + SESP)	NMCP Health Promotion Unit		National																			
Activity 4.3.6	Supervise and monitor advocacy activities, ensuring quality, feedback loop and continuous improvement																							
	Participate in the central level integrated supervision visits	Costs included under objective 1. Program Management	NMCP Health Promotion Unit		Provincial Level / District level																			
	Participate in the provincial level integrated supervision visits	Costs included under objective 1. Program Management	NMCP Health Promotion Unit		Provincial Level / District level																			
	Participate in the district level integrated supervision visits	Costs included under objective 1. Program Management	NMCP Health Promotion Unit		Provincial Level / District level																			
Strategic Intervention 4.4	Increase demand, provision and utilization of quality malaria services																							
Activity 4.4.1	Develop materials and contents for Interpersonal Communication and Counselling (IPCC), for health care workers																							
	Update the DEPROS IPCC manual and develop a NMCP IPCC manual		NMCP Health Promotion Unit + SBCC TWG		Central level																			
	Print and disseminate the NMCP IPCC manual	Copies: 100	NMCP Health Promotion Unit		Central level																			
	Update or develop SBCC materials to be used at Health Facilities	Flipcharts for health education talks, performed by healthcare workers, at the health facilities, including topics such as prevention of malaria in pregnancy and case management A5 desktop calendars with specific IPTp and case management messages	NMCP Health Promotion Unit + SBCC TWG		Central level																			
	Print Health facility materials for pre-test	Material development, printing and dissemination included in Case Management; 10 copies of each	NMCP Health Promotion Unit + SBCC TWG	NMCP Case Management Team	Central level																			
	Pre-test in 3 different social or cultural regions		NMCP Health Promotion Unit + SBCC TWG	NMCP Case Management Team	Provincial Level																			
	Hold a meeting to review the findings from the pre-test activities		NMCP Health Promotion Unit + SBCC TWG	NMCP Case Management Team	Central level																			
	Update/review the approach and material based on the feedback from the review meeting		NMCP Health Promotion Unit + SBCC TWG		Central level																			
	Coordinate with DEPROS to ensure timely approval of the materials developed		NMCP Health Promotion Unit + SBCC TWG	DEPROS	Central level																			
	Print Health Facilities flipcharts	3 per health facility; Twice during this NSP	NMCP Health Promotion Unit		Central level																			
	Print IPTp desktop calendar	To be used by healthcare workers during ANC consultations, at health facility; 2 per health facility (every 2 years) A5 desktop calendar with SBCC messages, multiple pages	NMCP Health Promotion Unit		Central level																			
	Print case management desktop calendar	To be used by healthcare workers during outpatient consultations, at Health facility; 5 per health facility (every 2 years) A5 desktop calendar with SBCC messages, multiple pages	NMCP Health Promotion Unit		Central level																			
Activity 4.4.2	Build capacity of health care providers on use of SBCC materials																							
	Hold central level ToT on IPCC and use of SBCC materials	Done during the annual SBCC meeting, for the provincial malaria focal point+ SESP	NMCP Health Promotion Unit		Central level																			
	Train employees of the ALOVIDA helpline / call centre on the malaria message package developed		NMCP Health Promotion Unit	ALOVIDA	Central level																			
	Train HCW on IPCC and use of SBCC materials	14.500 HCW, during the case management training	NMCP Health Promotion Unit		Central level																			
	Train APEs on IPCC and use of SBCC materials	During the malaria case management refresher training	NMCP Health Promotion Unit		Central level																			
	Supervise HCW and APEs on the use of SBCC materials	Combined with other activities	NMCP Health Promotion Unit		Central level																			
Activity 4.4.3	Develop materials and contents to strengthen community-based provision and demand creation for malaria services, with APEs, activists and local leaders																							
	Update or develop training materials for APEs		NMCP Health Promotion Unit + SBCC TWG	APE Program	Central level																			
	Print APEs materials for pre-test		NMCP Health Promotion Unit + SBCC TWG		Central level																			
	Pre-test in 3 different social or cultural regions		NMCP Health Promotion Unit + SBCC TWG		Provincial Level																			
	Hold a meeting to review the findings from the pre-test activities		NMCP Health Promotion Unit + SBCC TWG	APE Program	Central level																			
	Update/review the approach and material based on the feedback from the review meeting		NMCP Health Promotion Unit + SBCC TWG		Central level																			
	Coordinate with DEPROS to ensure timely approval of the materials developed		NMCP Health Promotion Unit + SBCC TWG	DEPROS	Central level																			
	Print and distribute materials for APEs	1 copy per APE every 2 years Laminated, A4 Distributed during the refresher trainings, when possible, and through HF's	NMCP Health Promotion Unit		Central level																			
	Train APEs on the malaria materials developed	During case management / in collaboration training department	NMCP Health Promotion Unit	APE Program Case Management Team	Community Level																			

	Develop job aids for CBOs and activists	For prevention of malaria in pregnancy, etc; include user guide to help teaching on how to use the job aids	NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Print job aids for CBOs and activists	Number: 5.000 user guides (15-20 pg, colour)	NMCP Health Promotion Unit		Central level																																				
	Review and update job aids for APEs	For prevention of malaria in pregnancy, etc.	NMCP Health Promotion Unit	APE Program Case Management Team	Central level																																				
	Print job aids for APEs	1 for each existing APE- 3500 + new APEs A5 flipchart with pictures (IPTp, case management, LLIN, IRS)	NMCP Health Promotion Unit		Central level																																				
Activity 4.4.4	Develop and implement evidence-based and context-relevant SBCC materials and programs to increase malaria care-seeking																																								
	Update or develop SBCC materials to increase malaria care-seeking	Including brochure with key messages for drama groups, content for community dialogues and model families	NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Print malaria care-seeking SBCC materials for pre-test		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Pre-test in 3 different social or cultural regions		NMCP Health Promotion Unit + SBCC TWG		Provincial Level																																				
	Hold a meeting to review the findings from the pre-test activities		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Update/review the approach and material based on the feedback from the review meeting		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Coordinate with DEPROS to ensure timely approval of the materials developed		NMCP Health Promotion Unit + SBCC TWG	DEPROS	Central level																																				
	Print/Procure/Provide evidence-based and context-relevant SBCC materials to increase malaria care-seeking	(1) Flyers 50.000 flyers (A5 1 pg colour) (2) Brochure for Drama groups- 500 (A5 4 pg) including LLIN and IRS (3) Community Dialogues materials (flyers) (4) Model families materials TBD	NMCP Health Promotion Unit + SBCC TWG		Central level																																				
Activity 4.4.5	Develop and implement evidence-based and context-relevant radio programming and other mass media materials to increase malaria care-seeking																																								
	Update or develop mass media materials to increase malaria care-seeking	For IPTp and Case Management	NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Print mass media materials to increase malaria care-seeking, for pre-test		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Pre-test in 3 different social or cultural regions		NMCP Health Promotion Unit + SBCC TWG		Provincial Level																																				
	Hold a meeting to review the findings from the pre-test activities		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Update/review the approach and material based on the feedback from the review meeting		NMCP Health Promotion Unit + SBCC TWG		Central level																																				
	Coordinate with DEPROS to ensure timely approval of the materials developed		NMCP Health Promotion Unit + SBCC TWG	DEPROS	Central level																																				
	Disseminate mass media materials to increase malaria care-seeking	Type of mass media material: 1) provincial radio spots- 1 ptg, 2 local language; 3x a day for 6 months, 1 minute spot 2) community radio spots- local language, same frequency as above 3) TV provincial commercials (janela local)- 1 per province in local language, 2 min spot 4) Magazines (reportagem de tv na comunidade c entrevistas) 5) Radio programs (interview with an expert, HCW or influent leader, followed by Q&A for audience)	NMCP Health Promotion Unit + SBCC TWG		Central level																																				
Activity 4.4.6	Supervise, monitor & control malaria care SBCC activities, ensuring quality, feedback loop and continuous improvement																																								
	Participate in the integrated central level supervision visits	Twice a year to every province; costs captured under obj 1.	NMCP + Partners		Provincial Level																																				
	Participate in the integrated provincial level supervision visits	Provincial malaria focal point + saude comunidade; bi-monthly; all provinces; costs captured under obj 1.	Provincial Focal Point	Saude Comunidade	District Level																																				
Strategic Intervention 4.5	Reinforce knowledge and influence social norms and behaviours for malaria prevention																																								
Activity 4.5.1	Review, test and disseminate mass media materials, tools &/or messages that promote desired malaria prevention behaviours																																								
	Assess and review existing mass media tools and messages	TA from partner	Partners		Central Level																																				
	Adapt and develop mass media materials to increase malaria prevention behaviour, including technological solutions (FB, WA, sms)	TA from partner	Partners		Central Level																																				
	Update, develop and print mass media materials to increase prevention behaviour, for pre-test		NMCP Health Promotion Unit + SBCC TWG		Central Level																																				
	Pre-test in 3 different social or cultural regions		NMCP Health Promotion Unit + SBCC TWG		Provincial Level																																				
	Hold a meeting to review the findings from the pre-test activities		NMCP Health Promotion Unit + SBCC TWG		Central Level																																				
	Update/review the approach and material based on the feedback from the review meeting		NMCP Health Promotion Unit + SBCC TWG		Central Level																																				
	Coordinate with DEPROS to ensure timely approval of the materials developed		NMCP Health Promotion Unit + SBCC TWG	DEPROS	Central Level																																				



	Build capacity on Malaria SBCC during the training of APE	to be included under APE initial and refresher training	NMCP Health Promotion Unit	Case Management Team APE Program	District Level																				
Activity 4.5.5	Implement IPCC strategies that promote desired malaria prevention behaviours and norms																								
	Conduct community Radio Sessions	5 sessions per quarter; per district; annually	GF SC		Community Level																				
	Distribute annual prize schools	120 prizes ; annually	GF SC		Community Level																				
	Provide Community Structures incentives		GF SC		Community Level																				
	Produce and distribute malaria education school kit	include working kit for teachers	GF SC		Central level																				
	Spread messages on malaria prevention and treatment, through religious sermons, home visits, meetings/lecturers	in 2017, 2018, 2019: Gaza, Inhambane, Sofala, Zambezia and Nampula	PIRCOM		Community Level																				
	Conduct meetings with women's groups	In Gaza and Inhambane 48 meetings per year Length: 2h per meeting Number of participants: 15 women in each session	PIRCOM		Community Level																				
	Distribution of bicycles to religious volunteers	In 2017: 1000, to Gaza, Inhambane, Sofala, Zambezia and Nampula	PIRCOM		Community Level																				
	Reproduction of material for dissemination of messages and mobilization of the community (job aid, hand out, stickers, t shirt, hand bags, ID cards, posters, couplets and tent exhibition	in 2017: Gaza, Inhambane, Sofala, Zambezia and Nampula Job aid- 500 Hand out Printing- 20.000 Stickers -16.000 Tshirt printing – 1000 Printing of Caps - 1000 Hand Bags -500 ID cards for Volunteers-300 Printing of Posters-400 Couplets - 4 Tent exhibition - 4	PIRCOM		Central level																				
Activity 4.5.6	Supervise, monitor & control malaria prevention SBCC activities, ensuring quality, feedback loop and continuous improvement																								
	Participate in the integrated central level supervision visits	To be combined with 4.4.6	NMCP	Partners	Community level																				
	Participate in the integrated provincial level supervision visits	To be combined with 4.4.6	Provincial malaria Focal Point / Community Health focal point		Provincial Level																				
	Monitor SBCC activities- mass media coverage		NMCP Health Promotion Unit	NMCP M&E Team	Central level																				
	On-going monitoring of Community Structures activities/ Supervision visits to districts				Community level																				
	On-going monitoring of Health Centre activities/ Joint Supervision visits to the health centres				Community level																				

Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022			
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
			Objective 5	Accelerate efforts towards malaria elimination, by implementing epidemiologically appropriate interventions in defined areas of low and very low transmission, by 2022																									
Strategic Intervention 5.1	Establish flexible, effective and active epidemiological surveillance systems to support response																												
Activity 5.1.1	Develop systems for active surveillance, diagnosis and treatment																												
	Develop Mozambique specific active surveillance guidelines	With TA from partners. Based on WHO guidelines and available evidence. Include foci investigation guidelines.	NMCP M&E Team	Partners	Central Level																								
	Meeting to review and finalize the guidelines, manual and tools	2 days, 20 persons 3 districts representatives	NMCP M&E Team	Partners	Central Level																								
	Print and disseminate the guidelines, manual and tools	2 for each health facility + district focal points Both guidelines and manual (2 separate documents)	NMCP M&E Team	Partners																									
	Map catchment areas and define population in the catchment area		NMCP M&E Team	Partners																									
5.1.1.1	Develop and implement a case based surveillance system																												
	Identify districts with low and very low incidence to strengthen surveillance capacity	National wide; based on stratification exercise	NMCP M&E Team	Partners	National level																								
	Define the case based surveillance needs	With TA from partners	NMCP M&E Team	Partners	National level																								
	Implement a case based surveillance system surveillance in elimination-targeted areas	With TA from partners	NMCP M&E Team	Partners	Maputo, Inhambane, Gaza																								
	Procure hardware for the case based surveillance system	For very low districts based stratification exercise and its annual reviews	NMCP																										
	Procure vehicles	Covered by MOSASWA	NMCP																										
	Procure 1 car per district, for Maputo province	Only for Maputo Province Elimination specific vehicles	NMCP		Maputo																								
Activity 5.1.2	Identify personnel needs																												
	Conduct needs assessment to identify elimination personnel gaps	To be included on the NMCP needs assessment, under obj 1	NMCP	TWG	National level																								
	Define roles and responsibilities and job description		NMCP	TWG	National level																								
Activity 5.1.3	Develop ToR and recruit, as required For Maputo province + very low incidence district + Border districts in context of E8 and MOSASWA																												
	Develop ToR for the Malaria Surveillance Agents and M&E Assistant		NMCP M&E Team	TWG	National level																								
	Hire Malaria Surveillance Agents at health facility level	2 persons per health facility for Maputo Province only	NMCP	Health Facility	Health Facility																								
	Hire an M&E assistant at provincial level	For Maputo Province Only	NMCP	Province	Provincial level																								
Activity 5.1.4	Provide training and supervisions For Maputo province + low incidence district + Border districts in context of E8 and MOSASWA																												
	Develop training materials	With TA from partners	NMCP M&E Team	Partners	National level																								
	Print training materials	2 copies per HF, Districts	NMCP M&E Team		National level																								
	Hold TOT in Active Surveillance to central and provincial level staff	Twice during this NSP; for 3 days; Participants: 4 central level + 3 provincial level staff + partners	NMCP M&E Team		Provincial level																								
	Cascade Active Surveillance Training to health facilities staff	Twice during this NSP; 4 days; Participants: 1 central level, 3 provincial level, 2 district, 2 HF staff All Surveillance team staff	NMCP M&E Team		Provincial level																								
	Cascade Active Surveillance Training to APEs	Twice during this NSP; 4 days; Participants: 1 central level person from APE department, 1 provincial level, 2 district level staff + All APEs	NMCP M&E Team		Provincial level																								
	Supervise on a routine basis the implementation of the case based surveillance system	Every month for the first 6 months, and then quarterly 2 days per health facility, 2 person from districts	NMCP M&E Team		Provincial level																								
Activity 5.1.5	Monitor and control																												
	Conduct regular supervisory visits from districts to health facility	Quarterly; 1 day per health facility	NMCP		Health Facility																								
	Conduct regular supervisory visits from province to district	2 additional (for the first 2 years)	NMCP		District level																								
	Conduct regular supervisory visits from central to district	2 additional (for the first 2 years)	NMCP		District level																								
	Hold regular meetings at district level	2 additional (for the first 2 years)	NMCP		District level																								

	Hold regular meetings at province level	2 additional (for the first 2 years)	NMCP		Provincial level																	
Strategic Intervention 5.2	Harmonize broad vector control strategies in defined areas, where regional commitments exist																					
Activity 5.2.1	Develop joint implementation plans among regional initiatives to synchronize annual vector control activities																					
	Conduct baseline assessment on vector management situation	Adapted from MOSASWA Strategic Plan	NMCP		National level																	
	Support logistics and human resource to increase integrated vector management	Adapted from MOSASWA Strategic Plan	NMCP	Goodbye Malaria	South																	
	Develop joint implementation plans to synchronize annual vector control activities	2 meetings; participants:7 districts and 2 DPS + 5 central level + partners	NMCP		South																	
Activity 5.2.2	Harmonize guidelines for entomological surveillance																					
	Attend coordination meetings as part of the E8 and the MOSASWA initiative between national representatives of vector control units		NMCP		Southern Africa																	
	Ensure opportunities for feedback from the provincial and district focal points	Done through routine meetings, etc. and annual meetings	NMCP		Province and District Level																	
Activity 5.2.3	Harmonize Insecticide Resistance Management plans																					
	Attend coordination meetings as part of the E8 and the MOSASWA initiative		NMCP		Southern Africa																	
	Attend coordination meetings as part of the E8 and the MOSASWA initiative	Done through routine meetings, etc. and annual meetings	NMCP		Province and District Level																	
Activity 5.2.4	Support logistics and human resources to increase IVM																					
	Strengthen entomological surveillance	All districts that are elimination-targeted should ensure entomological surveillance activities are carried out at specific sentinel sites, through the PIELS. Associated costs covered under activity 2.6. Perform Entomological Monitoring and Evaluation	NMCP																			
	Conduct IRS for all districts targeted for malaria elimination	As informed by entomological surveillance data	NMCP																			
	Map all breeding sites	Costs included under objective 2	NMCP																			
	Conduct larviciding for breeding sites that meet the requirements	Costs included under objective 2	NMCP																			
Strategic Intervention 5.3	Target interventions based on drivers of transmission, in defined areas																					
Activity 5.3.1	Update stratification of malaria risk to guide intervention targeting																					
	Gather all surveillance data and update the risk map		NMCP M&E Team	Partners	Central level																	
	Use the risk map and other type of surveillance data to update the stratification		NMCP M&E Team	Partners	Central level																	
	Update the annual plan based on the stratification		NMCP		Central level																	
	Disseminate the stratification at the Annual Review meeting		NMCP		Central level																	
Activity 5.3.2	Implement foci investigations in active foci																					
	Develop draft materials and pilot foci investigation		Elimination TWG		Central level																	
	Conduct a training on foci investigation	For integrated teams (include case management, surveillance and vector control); 3 days At the same time as the Surveillance training (activity 5.1.4)	NMCP		Provincial level																	
	Procure equipment for foci investigation (GPS, entomology, etc.)	Costs captured in sub activity 5.1.1.1. Procure hardware	NMCP		National level																	
	Conduct foci investigations in identified districts		NMCP		District level																	
Activity 5.3.3	Develop and implement responses to active foci																					
	Response to breeding sites => larviciding	No additional costs, just buffer quantities for commodities needed	NMCP		District level																	
	Response to lack of access of vector control tools =>provide additional LLIN or IRS	No additional costs, just buffer quantities for commodities needed	NMCP		District level																	
	Response to poor behaviour of the community => health promotion	No additional costs, just buffer quantities for commodities needed	NMCP		District level																	
	Response to identified resistance => using IRS	No additional costs, just buffer quantities for commodities needed	NMCP		District level																	
Strategic Intervention 5.4	Ensure financial sustainability of elimination efforts, based on evidence																					
Activity 5.4.1	Develop and implement an advocacy strategy and plan, building the investment case for elimination to secure sustained funding and support																					
	Develop an advocacy strategy and plan for elimination		NMCP	Partners	National level																	
	Hold a dissemination meeting of the advocacy strategy and plan	1 day, 50 persons; every 2 years	NMCP		National level																	
	Produce advocacy materials and print	100 copies	NMCP		National level																	

	Implement the advocacy plan	Take every opportunity to disseminate the elimination plan; 2 international trips per year	NMCP		National level																																
	Share information with MOSASWA and E8 on a routine basis		NMCP		National level																																
	Participate to the ALMA scorecard		NMCP		Provincial level																																
	Disseminate the ALMA scorecard	Annually; 5 per districts for Maputo Province; 12 copies (all province+central); Poster size - Laminated	NMCP M&E Team		Provincial level																																
	Disseminate the NCMP scorecard on a weekly basis		NMCP M&E Team		National level																																
Activity 5.4.2	<b>Monitor and adapt advocacy plan</b>																																				
	Analyse the surveillance data from elimination districts and create reports	Annually	NMCP M&E Team		National level																																
	Adapt the advocacy plan based on data from elimination districts		NMCP	Partners	National level																																
	Compile, print and disseminate the reports	Once every 2 years, 100 copies	NMCP M&E Team		National level																																



Level	Detail	Comments	Primary Implementer		Location	2017				2018				2019				2020				2021				2022			
			Implementer 1	Implementer 2		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Objective 6	Strengthen the surveillance system so 100% of health facilities and districts are reporting complete, timely, and quality data for evidence-based decision-making, at all levels of the health system by 2022																												
Strategic Intervention 6.1	Improve malaria SM&E capacity at all levels																												
Activity 6.1.1	Support national coordination of Surveillance and M&E																												
	Develop ToR to develop a National Surveillance Roadmap		NMCP	Partners	Central level																								
	Hold National Malaria Surveillance Meeting	Central level meeting; 30 pax, 2 days; NMCP + partners + international experts; Twice during this NSP	NMCP	Partners	Central level																								
	Develop National Surveillance Roadmap	With TA from partners and WHO; define national level activities; moving towards electronic data collection	NMCP M&E Team	Partners	Central level																								
	Review National Surveillance Roadmap	Once during this NSP	NMCP	Partners	Central level																								
	Review Malaria Surveillance System Assessment	Once during this NSP	NMCP	Partners	Central level																								
Activity 6.1.2	Develop and implement SM&E trainings																												
	Develop ToR for M&E trainings		SM&E TWG		Central level																								
	Develop the M&E training package	With TA from partners; Ensure alignment of the training package with the latest WHO Surveillance Guidelines and include: M&E manual and M&E package (should include all malaria data, and not just case data M&E indicators for entomology, vector control, etc.)	NMCP M&E Team		Central level																								
	Print M&E Manual	One M&E manual per participant; dissemination during the trainings	NMCP M&E Team		Central level																								
	Hold Central level DHIS2 Training	Participate in the bi-annual DHIS2 academies; for NMCP M&E central level staff	NMCP M&E Team		Central level																								
	Hold Central level M&E Training	For central and provincial level staff; on how to aggregate and analyse data; Participants: 5 central level, 2 provincial level, per province, partners (3); 6 day training; Twice over this NSP	NMCP M&E Team		Central and Province level																								
	Hold Provincial level M&E and DHIS2 Training	For district level staff; Done by DPSs with central level support; Participants: 2 per district (Malaria focal points + NED statistics); for 2 days; Twice over this NSP	NMCP M&E Team		District level																								
	Hold District level M&E Training	For HF level staff; 1 person per HF, for 1 day, Twice over this NSP	NMCP M&E Team		Health Facility level																								
Activity 6.1.3	Provide M&E tools and train in their use																												
	Print all M&E forms	Daily, weekly and monthly forms, for APES, HF and districts (including stock management for all commodities)	NMCP M&E Team		Central level																								
	Ensure distribution of M&E forms to all levels		NMCP M&E Team		Central level																								
	Train HF level staff on use of forms	Included under 6.1.2. District level M&E training	NMCP M&E Team		Health Facility level																								
Activity 6.1.4	Implement appropriate response to training needs at community level (APEs)																												
	Advocate for M&E training at the community level (APEs)		NMCP M&E Team	APE Program	Central level																								
	Include M&E component to the APES refresher training	Included under objective 3- Case Management	NMCP M&E Team	APE Program	Community Level																								
Activity 6.1.5	Implement continuous monitoring and supervision																												
<i>new line</i>	Harmonize mtools for passive and active surveillance	With TA from partners	NMCP M&E Team	Partners	Central level																								
	Assess potential for a mHealth solutions to monitor referral completion		NMCP M&E Team	Partners	Central level																								
	Develop and implement recommendations from mHealth assessment		NMCP M&E Team	Partners	Central level																								
	Support <i>ad hoc</i> cascade training	On-the-job training for existing and new staff	NMCP M&E Team		Central level																								
	Conduct central level supervision visits to districts and provinces	2 times per year; 1 week, 4 persons from central level (NMCP+DIS and/or DNSP M&E unit + epidemiological department); Specific supervision visits, separated from the integrated ones	NMCP M&E Team		Provincial and District level																								
	Conduct provincial level supervision visits to districts	2 times a year; 1 week per district, 2 persons from province; Specific supervision visits, separated from the integrated ones	Provincial Focal Point		Provincial and District level																								
	Conduct district level supervision visits to health facilities	Quarterly; 2 persons; 1 day for eachHF; Specific supervision visits, separated from the integrated ones	District Focal Point		Health Facility level																								
	Participate in the integrated provincial level supervision visits	4 provincial level staff (chief doctor, malaria focal, SESP, M&E), quarterly to cover every district of every province annually; costs captured under obj.1	DPS		Provincial and District level																								

	Participate in the integrated district level supervision visits	4 district level staff (chief doctor, malaria focal, pharmacy, M&E), bi-monthly to cover every HF annually; costs captured under obj.1	DDS		Provincial and District level																				
Strategic Intervention 6.2	Establish a Data Quality Assurance system	Close collaboration with DIS is crucial for development of the Data Quality Assurance system																							
Activity 6.2.1	Review existing data collection tools and develop appropriate responses to identified gaps																								
	Develop ToR to develop the Data Quality Assurance system		NMCP M&E Team	Partners	Central level																				
	Hire consultant to support development of the Data Quality Assurance system	1 month	NMCP M&E Team		Central level																				
	Review existing data collection tools and data quality assurance systems and develop draft of the Data Quality Assurance system	Including manual, training materials and tools	Consultant		Central level																				
	Share draft manual and tools with stakeholders and partners for feedback		NMCP M&E Team		Central level																				
	Review draft manual and tools based on feedback		Consultant		Central level																				
	Hold meeting to discuss second draft of the Data Quality Assurance manual and tools	With members of M&E TWG and consultant	NMCP M&E Team	TWG	Central level																				
	Update and finalize Data Quality Assurance manual and tools based on feedback		Consultant		Central level																				
	Develop training materials to implement the Data Quality Assurance system	1 TOT manual for provincial and central + 1 participant manual for district	Consultant		Central level																				
	Print Data Quality Assurance system manual and tools	2 per Health Facility + 1 per district + 1 per province + 20 central level Print twice over this NSP	NMCP M&E Team		Central level																				
	Print Data Quality Assurance system training materials	- one TOT manual for provincial and central training - one participant manual for district training	NMCP M&E Team		Central level																				
Activity 6.2.2	Plan and cost training requirements																								
	Develop training plan to implement the Data Quality Assurance	Same Consultant; once during this NSP	Consultant		Central level																				
	Cost training plan to implement the Data Quality Assurance	Same Consultant; once during this NSP	Consultant		Central level																				
Activity 6.2.3	Training in Data Quality Assurance tools																								
	Conduct central level ToT on Data Quality	11 Provincial focal point + 4 persons per province (provincial medical chief, provincial malaria focal point, NEP, surveillance and M&E) + 20 central level; 4 days / 2 trainings; Twice during this NSP	NMCP M&E Team		Central level																				
	Cascade the training to district level on Data Quality	4 persons per district (district medical chief, malaria district focal point, NED, surveillance focal point), 2 trainings per province; 2 days; Twice during this NSP	NMCP M&E Team		Provincial level																				
	Conduct on-the-job trainings at HFs and invite APES to attend	2 days per HF; 2 persons (district malaria focal point + NED); Twice during this NSP	NMCP M&E Team		District level																				
Activity 6.2.4	Implement Data Quality Audits (DQA), monitor and control data																								
	Conduct weekly HF level DQA		HF staff		Health Facility level																				
	Conduct monthly district level DQA	1 district level staff goes to every HF; 1 day per HF	District Focal Point																						
	Conduct quarterly provincial level DQA	1 day per district, 2 persons from province go to every district	Provincial Focal Point		District level																				
	Conduct annual central level DQA	In every province, 1 week for each province, 4 persons from central (NMCP+DIS and/or DNSP M&E unit + epidemiological department)	NMCP M&E Team		Provincial and District level																				
	Implement response to data quality problems as per manual - at all levels		NMCP M&E Team		National																				
Strategic Intervention 6.3	Establish a comprehensive, integrated Malaria Information Storage System (iMISS)																								
Activity 6.3.1	Review existing malaria-related databases																								
	Develop ToR to review existing databases	Led by technical partner	NMCP M&E Team		Central level																				
	Identify core team to lead the development of the iMISS	A technical partner / epidemiologist should be coordinating the core team to support the development of the iMISS, starting by defining desired outputs and provide input on the type of data needed / frequency / aggregation levels, etc.	NMCP M&E Team	Partners	Central level																				
	Review and compile an assessment report on existing malaria-related databases and identifying gaps in required data	Led by the core team Include partner's malaria databases. Discuss data collection and reporting by APES and assess options for electronic data reporting via cellphones	NMCP	Partners	Central level																				
	Share assessment report with M&E TWG and DIS for approval and prioritization of gaps in required data	Led by the core team	NMCP M&E Team		Central level																				
	Hold TWG meetings within each thematic areas to create a list of indicators/ variables to be captured by the iMISS	Captured under the M&E TWG meeting	NMCP M&E Team	SM&E TWG	Central level																				
	Share the list with the M&E TWG and finalise the lists of indicators/variables	Led by the core team	NMCP M&E Team	SM&E TWG	Central level																				





	Disseminate the findings of main OR studies during Annual Malaria Meeting		NMCP M&E Team		Central level			█			█				█				█				█				
	Disseminate findings from implemented OR at local, regional and international conferences	National conference every 2 years	NMCP M&E Team		Central level					█				█													
	Publish articles in peer review journals		NMCP M&E Team		Central level																						
Activity 6.5.5	Use results to influence policy and implementation decisions																										
	Update Case Management policies and guidelines, based on therapeutic efficacy studies results	Based on results, as per need	NMCP CM TWG	NMCP M&E Team	Central level																						
	Update SBCC guidelines based on the KAP survey findings	Based on results, as per need	NMCP Health Promotion Unit	TWG	Central level																						
	Use the findings of surveys (MIS, etc.) to update national stratification	Based on results, as per need	NMCP M&E Team	SM&E TWG	Central level																						
Activity 6.5.6	Implement MIS and other large-scale surveys to monitor the program impact																										
	Conduct small-scale KAP Survey	Led by INS, NMCP and partners To be implemented only in Nampula in 2017	INS	NMCP	Provincial level																						
	Conduct regular MIS surveys	Twice during this NSP: in 2018 and 2021	INS	NMCP	National																						
	Conduct regular Health Facility Surveys	Twice during this NSP: in 2018 and 2021	NMCP	Partner	National																						

## 17 Strategic Plan Appendices

### 17.1 Appendix A: Alignment of MSP Objectives with SDGs

#### 17.1.1 Objective 1 – Programme Management

Through governance and leadership, this objective supports poverty reduction (SDG 1) through mobilising sustained investment in malaria. It supports activities which reduce suffering from malaria, increasing food security (SDG 2) and a more productive workforce (SDG 8). Averting deaths and illness due to malaria (SDG 3), it lays the foundation for children to attend school regularly (SDG 4), promoting gender equality through reducing the burden on women and school-age girls to care for sick family members (SDG 5). Governance of elimination interventions supports reduced mosquito breeding and malaria transmission rates (SDG 6 and 9). Targeted malaria responses improve the health of the poorest and enable vulnerable families to break the vicious cycle of disease and poverty, reducing inequality (SDG 10), and emergency preparedness helps mitigate the effects of climate change (SDG 13).

#### 17.1.2 Objective 2 – Vector Control

Due to their scale, universal coverage with vector control interventions contributes to achievement of the SDGs – particularly, reducing malaria protects household income (SDG 1), supports productivity and greater food security (SDG 2), lowers malaria burden resulting in less mothers dying, healthier babies and children (SDG 3) improved opportunities to attend school (SDG 4), and supports gender equality (SDG 5) as well as improving the health of the poorest (SDG 10).

#### 17.1.3 Objective 3 – Case Management

Case management improves the health of people allowing them to work more consistently and improving food security (SDG 2). Increased access to accurate diagnosis, treatment and preventative therapies (IPTp) reduces malaria-related mortality and morbidity and gives newborns a healthier start to life (SDG 3). Reducing malaria supports school attendance and performance (SDG 4) and reduces the burden on women and school-age girls to care for sick family members (SDG 5). Extending access to case management to community and peripheral health facilities improves the health of the poorest (SDG 10).

#### 17.1.4 Objective 4 – SBCC

SBCC that improves knowledge and norms and behaviours related to malaria prevention and appropriate care reduces malaria and results in a healthier workforce and population, improving food security and reducing poverty and hunger (SDGs 1 and 2), allowing people to live healthier lives (SDG 3) and attend school regularly (SDG 4) and be more likely to complete school (SDG 5).

#### 17.1.5 Objective 5 – Elimination

Efforts to accelerate elimination in Mozambique contribute to reducing poverty and generating growth (SDG 1), improving food security as the malaria burden is reduced (SDG 2) and reducing deaths and illness due to malaria, protecting women and giving children a healthier start (SDG 3). Reducing malaria improves school attendance (SDG 4), frees women and school-age girls from the burden of caring for family members (SDG 5) and contributes to creating a healthier and more productive workforce (SDG 8). Targeted, responsive interventions will reduce malaria transmission from standing water (SDG 6) and as a result of major construction or development projects (SDGs 9, 11 and 15). Targeted interventions will also respond to climate change effects (SDG 13), improve the health of the poorest (SDG 10) and contribute to a more cohesive and inclusive society (SDG 16).

#### 17.1.6 Objective 6 – Surveillance, Monitoring & Evaluation

By improving the evidence base on which policy and programmatic decisions are made, this objective supports a responsive health system that will ultimately enable poverty reduction (SDG 1), a healthier population able to work more consistently (SDG 2) with less illness and deaths due to malaria (SDG 3). It contributes to ensuring education (SDG 4) and gender equality (SDG 5). By contributing to reduced malaria incidence it supports the creation of a healthier, more productive workforce to promote inclusive growth (SDGs 8 and 12), reducing inequality by enabling vulnerable families to break the vicious cycle of disease and poverty and contributing to more inclusive, cohesive societies (SDGs 10 and 16). By establishing EPR, it supports efforts to mitigate the effects of climate change on malaria transmission (SDG 13).

## 17.2 Appendix B: Contributors to the Development of the MSP 2017-2022

Name	Organisation	Name	Organisation
Baltazar Candrinho	MISAU, NMCP	Eva de Carvalho	WHO
Albertina Chihale	MISAU, NMCP	Sónia Casimiro Trigo	WHO
Carlota Tembe	MISAU, NMCP	Rita Chico	CHAI
Dulcisaria Jotamo	MISAU, NMCP	James Colborn	CHAI
Elsa Nhantumbo	MISAU, NMCP	Nyasatu Ntshalintshali	CHAI
Eunice Alfai	MISAU, NMCP	Innessa Ba	CHAI
Francisco Matsinhe	MISAU, NMCP	Abuchahama Saifodine	PMI
Guidion Mate	MISAU, NMCP	Flávio Wate	PMI
Inês Juleca	MISAU, NMCP	Rose Zulliger	PMI
João Laice	MISAU, NMCP	Francisco Saute	CISM
Lúis Ismael	MISAU, NMCP/Global Fund	Esperança Sevene	UEM
Mariana C J da Silva	MISAU, NMCP	Armindo Tiago	UEM/MCSP /JHPIEGO
Nelson Cuamba	MISAU, NMCP/FORSSAS	Frederico Brito	UNICEF
Rosália Mutemba	MISAU, NMCP	Abdul Mussá	Chemonics/PSM
Sérgio Gomane	MISAU, NMCP	Sónia Mocumbi	CISM
Rofina Macie	Ministry of Education & Human Development	Arturo Sanabria	Independent consultant
Silvia Pedro	MISAU, NMCP	Olinda Munguande	FDC
Arlindo Banze	MISAU, Public Health intern	Sergio Julane	FDC
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Munga Meque	MISAU, Laboratory Section	Betuel Sigauque	MCSP/JHPIEGO
Humberto Rodrigues	MISAU, APE Programme	Natércia Macamo	PSM/GHSC
Anete Dinis	MISAU, MCH programme	Chandana Mendis	World Vision
Nurbai Calú	Maputo Municipality, Councillor for Health & Social Welfare	Jorge Arroz	World Vision
Martinho Dgedge	MISAU	Marta Chande	World Vision
Avertino Barreto	MISAU		
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Lorna Gujral	MISAU, Epidemiology Dept.		

### 17.3 Appendix C: MSP Development Process

This MSP was developed through a facilitated process of intensive and participative analysis and planning which took place over a four month period (from the end of November 2016 until the end of March 2017), led by the NMCP Director, facilitated by an external consultant, and involving active representation from all key stakeholder groups including within MISAU (related programmes / departments i.e. APE, MCH, the Global Fund Project Management Unit, INS, Directorate of Planning and Cooperation, CMAM, and the Laboratory Department), with contributions from the Provincial Health Authorities (DPS) of Tete, Zambézia, Niassa, Gaza and Maputo city, as well as participation of national and international funding, technical and implementation partners.

The design of the strategic framework for this MSP involved a number of phases:

- **Consultations Phase 1** involved a short series of focused, high level, strategic sessions at central level involving NMCP, MISAU, and key partners. This phase included building consensus on process, approach, methodologies, stakeholders, roles and responsibilities and the milestone schedule for developing the MSP as well as designing the overall strategic framework which would guide further definition of the MSP.
- **Consultations Phase 2** involved a short series of intensive joint working sessions with subject specialists and technical partners to build on the strategic framework and further define key activities and priorities involved in the delivery of each strategy developed to achieve the objectives.
- **Consultations Phase 3** involved a number of individual consultations to receive additional feedback and inputs in order to finalise the draft strategic framework and ensure inclusion of all considerations.
- The **document development phase** involved close coordination with key stakeholders to gather and verify data and information inputs, collate all technical inputs, collate the content and develop the narrative. This phase also included a review and inputs process of completed sections of the document.
- The micro planning and financial costing exercises and development of M&E framework were carried out using the CHAI model.



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- <sup>1</sup> Feachem, R.G.A. and The Malaria Elimination Group (2009). Shrinking the Malaria Map: A Guide on Malaria Elimination for Policy Makers. San Francisco: The Global Health Group, Global Health Sciences, University of California, San Francisco
- <sup>2</sup> Global Malaria Programme WHO malaria terminology World Health Organization 2016. Republished in March 2017 with changes.
- <sup>3</sup> *Idem*
- <sup>4</sup> *Idem*
- <sup>5</sup> *Idem*
- <sup>6</sup> *Idem*
- <sup>7</sup> *Idem*
- <sup>8</sup> *Idem*
- <sup>9</sup> Ministerio da Saude (MISAU), Instituto Nacional de Estatística (INE) e ICF International (ICFI). Moçambique Inquérito Demográfico e de Saúde 2011. Calverton, Maryland, USA: MISAU, INE e ICFI
- <sup>10</sup> MPR – Malaria Programme Review 2016
- <sup>11</sup> Dutta, A., N. Perales, R. Silva, and L. Crivillé. 2014. Estimated Resource Needs and Impact of Mozambique's Plano Estratégico do Sector Saúde, 2014–2019. Washington, DC: Futures Group, Health Policy Project do Sector Saúde.
- <sup>12</sup> PNCM INFORM and LSHTM (2015). Mozambique: A Profile of Malaria Control and Epidemiology
- <sup>13</sup> MPR – Malaria Programme Review 2016
- <sup>14</sup> Projeção Anual da População Total 2007 – 2040; QUADRO 11. População projectada por área de residência e sexo segundo idade. Moçambique, 2017 Instituto Nacional de Estatística
- <sup>15</sup> Relatório anual do PNCM 2015 versão final de 03 de Maio 2016
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