The Republic of Uganda

Uganda Malaria Reduction Strategic Plan 2014-2020

Monitoring and Evaluation Plan

Ministry of Health,

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Foreword

By 2020, Uganda aims to have significantly reduced malaria in the country and the Uganda Malaria Reduction Strategic Plan (UMRSP) 2014/15-2019/20 was developed to guide the process of achieving this target. It is therefore imperative that focused plans and interventions are monitored regularly and evaluated periodically to assess progress, shortcomings and inform the Ministry of Health (MoH) on the next steps. A sound monitoring and evaluation (M&E) plan that is anchored in a good M&E framework is critical for the success of malaria program implementation. An appropriate performance framework can demonstrate outputs, outcomes and impact achieved in prevention and control of malaria and provide a basis for evidence based decision making and implementation.

This M&E plan has been written to ensure that indicators, their definitions and means of data collection and measurement are comparable over time. It is also meant to reduce duplication of efforts by both partners and MoH through ensuring the core principle of the Roll Back Malaria (RBM) partnership. In addition, the purpose of this M&E plan is to monitor and evaluate the Uganda Malaria Reduction Strategic Plan (UMRSP) 2014/15-2019/20.The plan also identifies desired data sources and roles of key malaria M&E stakeholders in the country.

Dr. Jane Ruth Aceng,
Director General Health Services

Acknowledgements

The formulation of this Monitoring and Evaluation Plan for the Uganda Malaria Reduction Strategic Plan (UMRSP) 2014/15-2019/20 would not have been possible without the leadership of the Uganda Ministry of Health and the Roll Back Malaria Partners. Technical and financial support was provided by the Government of the Republic of Uganda, the World Health Organization, the Global Fund, and the US President's Malaria Initiative (PMI), United Nations Children's Fund (UNICEF), the UK Department for International Development (DfID) and other RBM partners.

I would like to thank the National Malaria Control Programme staff and the malaria technical officers who supported the Mid Term Review (MTR) of the previous strategic plan and the UMRSP development process; Dr. Okui Albert Peter (Program Manager) , Mr. Bosco Agaba (MTR Coordinator), Mr. Vincent Katamba (NMCP), Mr. Kasule Mathias Mulyazaawo (NMCP), Dr. Henry Stanley Katamba (NMCP), Dr. Denis Rubahika (NMCP), Ms. Lucia Baguma (NMCP), Mr. Richard Okwii (NMCP), Dr. Myers Lugemwa (NMCP), and Dr. Jane Nabakooza (NMCP), Dr. Katureebe Charles (WHO), Dr. Nanyunja Miriam (WHO), Dr. Grace Kabaniha (WHO), Dr. Kassahun Belay (USAID/PMI), Dr. Bryan Kapella (CDC/PMI), Dr. Flavia Mpanga (UNICEF), Dr. Jackson Ojera (UNICEF), Ms. Caroline Asiimwe (FIND), Dr. Senjovu Kaggwa (IDI), Mr. Santos Damoi (IDI), Ms Emmanuella Baguma (CHAI), Dr. Nuwa Anthony (Malaria Consortium), Mr Denis Walusimbi (SURE), Ms Rebecca Babirye (PACE), Ms. Phyellister Nakamya (CCM), Dr. Isabirye Fred (TASO), Dr Sam Siduda Gudoi (SMP), Mr. Freddy Kitutu (MUSPH), Mr. John Kissa (MOH), Mr. Alex Gumisiriza (MOH FCO), Ms. Zahara Najjingo (TASO) for steering this process to its logical conclusion. The consultants for this process were: Dr. Ambrose O. Talisuna, Dr. Patrick Okello, Associate Prof. Pauline Byakika, Dr. Sam Muziki and Mr. Julius Mukobe.

Finally, I would like to state that the development of this M&E plan has been inclusive and participatory, involving all malaria stakeholders from different sectors of government, civil society, academia/research, development partners and the private sector. Therefore, I would like to call upon all stakeholders to adhere to the Roll Back Malaria principle of "**The Three Ones**" - one strategic plan, one monitoring and evaluation plan and one coordination authority.

I thank you all.

Dr. Asuman Lukwago
Permanent Secretary

List of Acronyms

ACT	Artemesinin-based Combination Therapy
ADR	Adverse Drug Reaction
AMFM	Affordable Medicines Facility - malaria
ANC	Antenatal Care
AWP	Annual Work plan
BFP	Budget Framework Paper
CBO	Community Based Organisation
CMD	Community Medicine Distributor
CSO	Civil Society Organisation
DHIS	District Healt Information System
DHO	District Health Officer
DQA	Data Quality Audit
DSS	Demographic Surveillance Site
EPI	Expanded Program on Immunisation
EPR	Epidemic Preparedness and Response
GF	Global Fund
HF	Health Facility
HMIS	Health Management Information System
HPAC	Health Policy Advisory Committee
HSD	Health Sub District
HSS	Health System Strengthening
HSWG	Health Sector Working Group
HW	Health Worker
ICCM	Integrated Community Case Management
IDSR	Integrated Disease Surveillance and Response
IPTp	Intermittent Preventive Treatment of Malaria in Pregnancy
IRS	Indoor Residual Spraying

ITN	Insecticide Treated Net
IVM	Integrated Vector Management
JRM	Joint Review Mission
LG	Local Government
LLIN	Long Lasting Insecticidal Net
M&E	Monitoring and Evaluation
MESST	Monitoring and Evaluation Systems Strengthening Tool
MOH	Ministry of Health
MOPS	Ministry of Public Service
MPR	Malaria Program Review
NHA	National Health Assembly
NHP	Nation Health Policy
HSSIP	Health Sector Strategic and Investment Plan
NIP	National Investment Plan
NMCP	National Malaria Control Program
OPD	Outpatient Department
PHP	Private Health Practitioners
PMI	U.S. President's Malaria Initiative
PNFP	Private Not- for -Profit
PSM	Procurement and Supplies Management
RBM	Roll Back Malaria
RC	Resource Centre
RDT	Rapid Diagnostic Test
SBCC	Social Behaviour Change Communication
SMP	Stop Malaria Project
SMS	Short Message Service
SP	Sulphadoxine/Pyrimethamine
SWAPs	Sector Wide Approaches
TWG	Technical Working Group
UBOS	Uganda Bureau of Statistics

UCP Uganda Capacity Program

UDHS Uganda Demographic Health Survey

UMSP Uganda Malaria Surveillance Project

USAID United States Agency for International Development

VHT Village Health Team

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Executive Summary

1.1 Background

Monitoring and evaluation are important management functions that detect whether desired results are being achieved. Uganda has developed a six year multi-sectoral malaria reduction strategic plan (UMRSP 2014-2020) with the main goal of reducing malaria burden. The plan has a detailed performance framework which includes high level targets. In the spirit of the "Three Ones" (one coordination, one strategic plan and one M&E plan), different stakeholders should be guided by this plan in the malaria control efforts. This M&E plan must be used in tandem with the malaria strategic plan.

1.2 Process of developing the M&E plan

The development of the M&E plan utilized a mix of methods including review of existing documents including the Uganda Malaria Reduction Strategic Plan 2014-2020 to align to both national and international requirements. The UMRSP 2014-2020 was developed through a highly consultative and participatory process, led by the Ministry of Health. It included the broader in-country RBM partnership (all stakeholders and partners involved in malaria control). WHO/IST provided technical support for the process. The UMRSP contains the strategies, strategic activities and the performance framework. The overriding theme in the development of the M&E plan was to create stakeholders' ownership of the development process and the final product.

1.3 The purpose of the M&E Plan

The aim of this malaria monitoring and evaluation plan is to provide a joint framework for a well-coordinated, systematic and holistic tracking of progress in malaria control, informing refinement and guiding decision-making for program improvement.

The specific objectives objectives of the plan are:

a) To describe the types of data and data sources, and how data will flow from the source to a central repository and to all relevant stakeholders.
b) To provide a framework for the collection, processing, reporting, analysis and use of malaria data in Uganda
c) To provide standard indicators, targets and frequency of reporting in a standardized format for all malaria implementers and stakeholders.
d) To guide the routine and periodic documentation of planned activities and measure expected outputs, and outcomes and impact when due.
e) To define implementation arrangements with clear responsibility centres.

1.4 Data sources

The data sources for this M&E plan shall be gotten from routine sources; national disease surveillance; health surveys and operational research. The routine sources include health management information system (HMIS), activity and supervision reports. Under the national disease surveillance sources, data is collected from IDSR, demographic surveillance sites, sentinel sites and from pharmcovigilance exercises.

In addition, the following will provide health survey data: demographic health surveys, malaria indicator surveys, national household surveys, ACT watch and health facility surveys. Operational research data will include data from therapouetic efficacy studies and insecticide susceptibility studies.

1.5 The performace framework and indicator matrix

This plan has got a performance framework with indicators and their targets arranged according to different levels like impact, outrcome, output and process. All indicators have been adapted from international guidance and defined to provide one country understanding so that there is one meaning for each indicator reported on by all stakeholders.

1.6 Implementation arrangements

To create harmony in reporting, the NMCP through the M&E unit shall coordinate this plan. The roles of stakeholders at national, regional, districts, health facilities and community levels have been specified in detail and data flow systems described.

1.7 Dissemination plan

During the implementation of this plan some of the products expected to be produced and disseminated include; monthly monitoring reports, Quarterly RBM meetings reports, Malaria quarterly bulletins, malaria annual malaria reports, World Malaria Report and research findings. These products shall be disseminated through meetings (monthly, quarterly or annual), publications, mass media, and MOH website.

1.8 Budegt implications

The cost of the implementing these M&E activities shall be maintained at about 15% of the total projected budget of the UMRSP.

Introduction

1.9 Background

Monitoring and evaluation are important management functions that detect whether desired results are being achieved. Uganda has developed a six year multi-sectoral malaria reduction strategic plan (UMRSP 2014-2020) with the main goal of reducing malaria burden. The plan has a detailed performance framework which includes high level targets. In the spirit of the "Three Ones" (one coordination, one strategic plan and one M&E plan), different stakeholders should be guided by this plan in the malaria control efforts. This M&E plan must be used in tandem with the malaria strategic plan.

In Uganda, malaria is the leading cause of morbidity and mortality, accounting for 30-50% of outpatient visits at health facilities, 20-30% of all hospital admissions, and 21% of all hospital deaths. Malaria is endemic in the whole country with 95% of the country having stable transmission and the rest unstable. The unstable and epidemic-prone transmission areas are in the highlands of the south- and mid-west, along the eastern border with Kenya, and the Northeast border with Sudan. According to the Malaria Indicator Survey (2009), the average parasite prevalence is 42% ranging from 5% in central region to 63% in mid northern region.

Uganda has developed a malaria reduction strategic plan for the period 2014-2020 and with it this monitoring and evaluation plan. It is expected that this M&E plan will be used as a tool for monitoring and evaluating the implementation of the strategic plan. Also it is expected that all partners will use this plan to guide their implementation reporting, and monitoring and evaluation in malaria control.

1.10 Development Process of the M and E Plan

The development of the M&E plan utilized a mix of methods including review of existing documents including the Uganda Malaria Reduction Strategic Plan 2014-2020 to align to both national and international requirements. The UMRSP 2014-2020 was developed through a highly consultative and participatory process, led by the Ministry of Health. It included the broader in-country RBM partnership (all stakeholders and partners involved in malaria control). WHO/IST provided technical support for the process. The UMRSP contains the strategies, strategic activities and the performance framework. The overriding theme in the development of the M&E plan was to create stakeholders' ownership of the development

process and the final product. In order to achieve the latter and to have stakeholders recognize the document as the one guiding framework, the National Malaria M&E Plan 2014-2020 has been developed through stakeholder participation at various stages. Initially, discussions on challenges affecting implementation and ownership of the previous M&E Plan were discussed during the MTR of the previous Malaria Strategic Plan. Stakeholders were implored to meticulously identify and select priorities for the revised M&E plan based on lessons learnt from implementation of the previous plan. Subsequently, RBM partners provided guidance on selection of key indicators that were prioritized for the UMRSP 2014-2020. Subsequent to this, the NMCP together with the RBM partners held a series of meetings to finalize the results framework. The NMCP together with the RBM partners further prioritized indicators and selected 5 impact and 25 outcome indicators.

The selection of indicators was guided by the following criteria:

i. Relevance to the priority strategic actions identified for the UMRSP 2014-2020 objectives
ii. Indicators that were identified by NMCP together with the RBM partners and deemed as priority to provide information needed to guide decisions on the national response
iii. Indicators with more focus on the national coordination function
iv. There is an already existing information base (HMIS) available to provide measurements for these indicators
v. Indicators needed to satisfy reporting on national and international commitments (World Malaria Reports, SGDs).

The M&E plan details the framework for monitoring and evaluating the UMRSP during the six year period. An effort was made to include all indicators so that all partners in malaria control are guided by one plan.

National Context

The country has a National Health Sector Strategic and Investment plan (NHSSIP) II for all disease programmes including malaria. The UMRSP was developed taking into account priorities identified in the NHSSIP III. In addition, several malaria stakeholders have their own work plans whose strategies are derived from the UMRSP. There is a National M&E plan to which the malaria and M&E plan is linked. The different M&E plan of stakeholders should also be linked to the malaria M&E plan in order to ensure harmonized measurement of progress.

1.11 Coordination of M&E in NMCP

The NMCP together with partners have agreed to work in a coordinated manner and in the spirit of three-ones (one implementation plan, one coordination mechanism and one M&E framework). The contribution of the partners to malaria M&E will be essentially two-fold; ensuring partners' efforts are in line with and coordinated by the Ministry of Health; and developing capacity in malaria M&E in the programme and health sector.

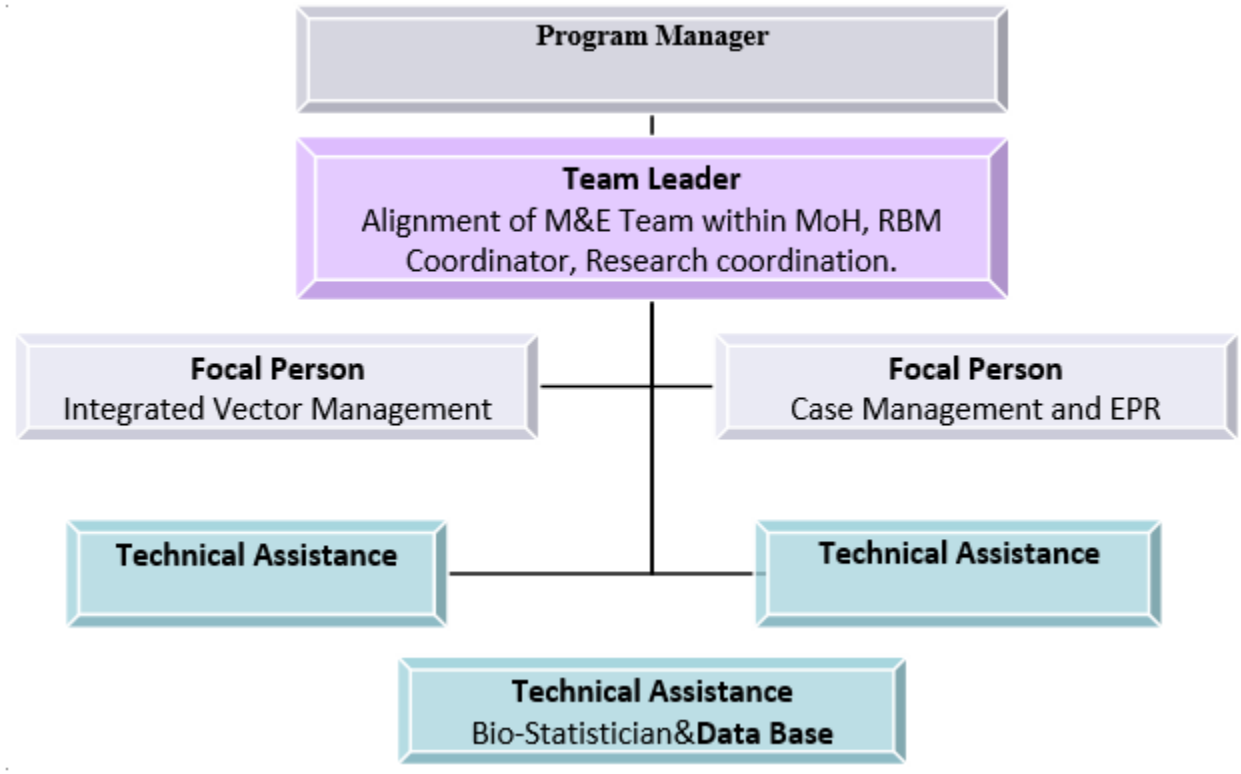
FUNCTIONS OF THE M&E UNIT

- Collect, compile relevant M&E information
- **Ensure that all the malaria indicators are captured by the DHIS 2**
- Establish and maintain functional linkages with other relevant partners involved in malaria M&E, including the Ministry of Health Resource Centre and other sectors e.g. UBOS
- Analyse and interpret programmatic as well as outcome and impact data
- Prepare and regularly update the national malaria profile
- Provide feedback; prepare quarterly monitoring reports and annual malaria reports and reviews
- Develop capacity at the sub national level in M&E
- Serve as the Secretariat of the M&E working group

The M&E unit within the NMCP is headed by the M&E team leader, who reports to the Programme Manager and is responsible for overall coordination and oversight over the day to day running of the M&E Unit. The Team Leader is assisted by M&E officers, Senior Medical Officers, the Data Manager and other technical officers.

Reports from the M&E unit are discussed at multiple levels including M&E thematic working group and Roll Back Malaria (RBM) Partnership forum (coordinated at the malaria control program level.

Figure 1: Organization of the M&E Unit within NMCP



1.12 Organization of the National Health System

The National Health System (NHS) is made up of the public and the private sectors. The public sector includes all GoU health facilities under the MoH, health services of the Ministries of Defence (Army), Education and Sports, Internal Affairs (Police and Prisons) and Ministry of Local Government (MoLG). The private health delivery system consists of Private Not for Profit (PNFPs) providers, Private Health Practitioners (PHPs), and the Traditional and Complementary Medicine Practitioners (TCMPs).

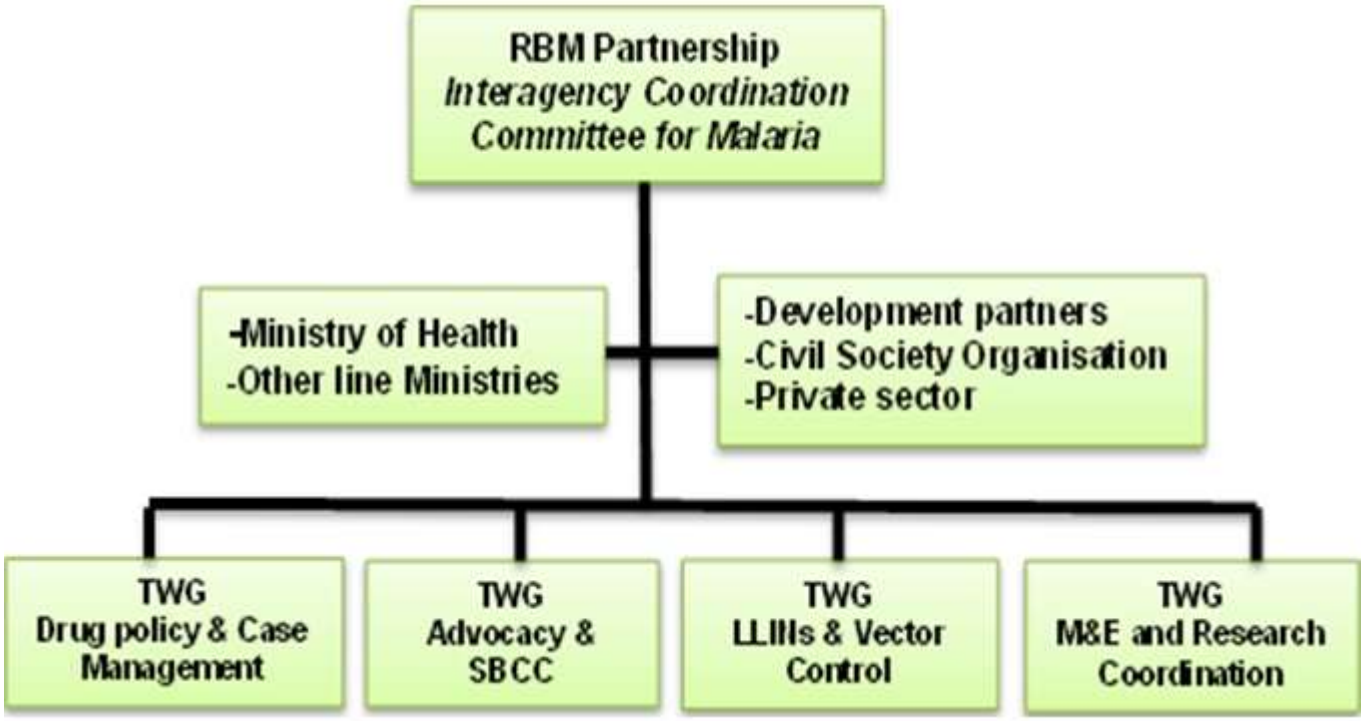
The formal health care system in Uganda is stratified into the National and Regional referral Hospitals (NRH & RRH), with a five-tier system at district level consisting of the General Hospitals (HC V), health centre IV (health sub-district), health centre III (sub-county), health centre II (parish) and the health centre I at village level. In each of the 112 districts the District Health Officer (DHO) is responsible for overseeing all facilities (including pharmacies and drug shops) and health services in the district, including those operated by not-for-profit organizations, partners and the private sector. Some responsibilities are delegated to the

health sub-districts that form the lower level of health services management. Although not a physical structure, the Health Centre I is at community level organized in “village health teams”. The traditional and complementary medicine practitioners are organized in several professional organizations and play an important role in malaria control in Uganda.

1.13 Organisation of NMCP

The NMCP is in the Communicable Disease Control Division, which is a division in the Department of National Disease Control in the Directorate of Clinical and Commuinity Health of the MoH. As a national program, it is mandated to coordinate and steer malaria control activities at national and local government, facility and community levels whether provided by public or private providers, and other partners.

Figure 2: NMCP M&E Coordination Mechanism



The mandate of the NMCP is to guide the implementation of national malaria control policies to reduce the malaria burden in Uganda. It is therefore expected to exercise leadership and authority in bringing malaria under control to a point that it no longer constitutes a public health problem in the country through strategic actions.

The NMCP has the linkages with other departments in the MoH, other national agencies and national partnership structures within the RBM partnership. Within the RBM partnership, the M&E unit of NMCP works through the M&E and Research Coordination Thematic Working Group shown in Figure 2.

1.14 Guiding principles and values of the Malaria Strategic and Monitoring plans

In addition to the guiding principles already highlighted in the UMRSP, the following principles and values will guide this M&E plan:

1.14.1 Partnership and multi-sectorial approach

The multi-sectorial approach will develop new partnerships and strengthen existing ones to ensure that malaria interventions are fully implemented at all levels including the community level and in a sustainable way. Efforts shall be made towards joint planning, morinoting and evaluation including reporting between Government and other stakeholders.

1.14.2 Ownership, leadership and political will

The Government will lead the implementation of malaria interventions and will be at the forefront of promoting a sense of stewardship, accountability and transparency.

1.14.3 Evidence-based

All malaria control interventions and strategies will be derived from research findings at international and country level. Their impact will be regularly monitored and evaluated

1.14.4 Integration

Interventions will be delivered in an integrated manner to avoid duplication, improve efficiency and increase coverage levels in order to achieve the intended results.

This means that “the Three Ones Principle” will guide the implementation of this monitoring and evaluation plan.

1.15 Summary of the Malaria Reduction Plan 2014-2020

This M&E Plan works within the NMCP Strategic Plan 2014-2020 whose strategic direction is to rapidly scale-up interventions to universal coverage, achieve consolidated control and set the ground for pre-elimination in the next strategic plan period.

1.15.1 Vision

Malaria free Uganda

1.15.2 Goals

By 2020, reduce

a) Annual malaria deaths from the 2013 levels to near zero
b) Malaria morbidity to 30 cases per 1000 population

c) The malaria parasite prevalence to less than 7%

1.15.3 Objectives

1.15.3.1 Objective 1

By 2017, achieve and sustain protection of at least 85% of the population at risk through recommended malaria prevention measures.

This will entail scaling up and sustaining indoor residual spraying (IRS) to 50 districts and sustaining the universal coverage of LLINs. Also capacity will be built in the area of larval source management; as well as in areas of entomology, epidemiological surveillance, insecticide resistance monitoring and vector behaviour and bionomics.

1.15.3.2 Objective 2

By 2018, achieve and sustain at least 90% of malaria cases in the public and private sectors and community level receive prompt diagnosis and treatment according to national policy

This objective will include strengthening health worker capacity for malaria diagnosis and treatment through regular training, clinical audits in the public and private sectors; scaling up and sustaining parasite based diagnosis of malaria at all levels and scaling up and strengtheningiCCM. In addition, management of malaria in pregnancy (MiP) will be strengthened as well as quality assurance and quality control of laboratory diagnosis.

1.15.3.3 Objective 3

By 2017, at least 85% of the population practices correct malaria prevention and management measures

To enhance behaviour change and achieve this objective the NMCP will strengthen national communication framework; develop messages for different communication platforms; strengthen community behavioural change activities for malaria and strengthen social mobilization at national and sub national level. The plan will also create a system for mapping, identifying, and engaging hard-to-reach, minority and socially disadvantaged populations; and improve advocacy for support for malaria control both in public and private sector.

1.15.3.4 Objective 4

By 2016, the programme is able to manage and coordinate multi-sectoral malaria reduction efforts at all levels

The NMCP will strengthen central level advocacy for resource mobilization for malaria control across all sectors; strengthen central and sub-national capacity to deliver malaria control interventions; strengthen the coordination of malaria control activities by all stakeholders including the private sector through national and RBM mechanisms; and strengthen programme capacity for procurement and supply chain management of malaria commodities.

1.15.3.5 Objective 5

By 2017, all health facilities and District Health Offices report routinely and timely on malaria programme performance

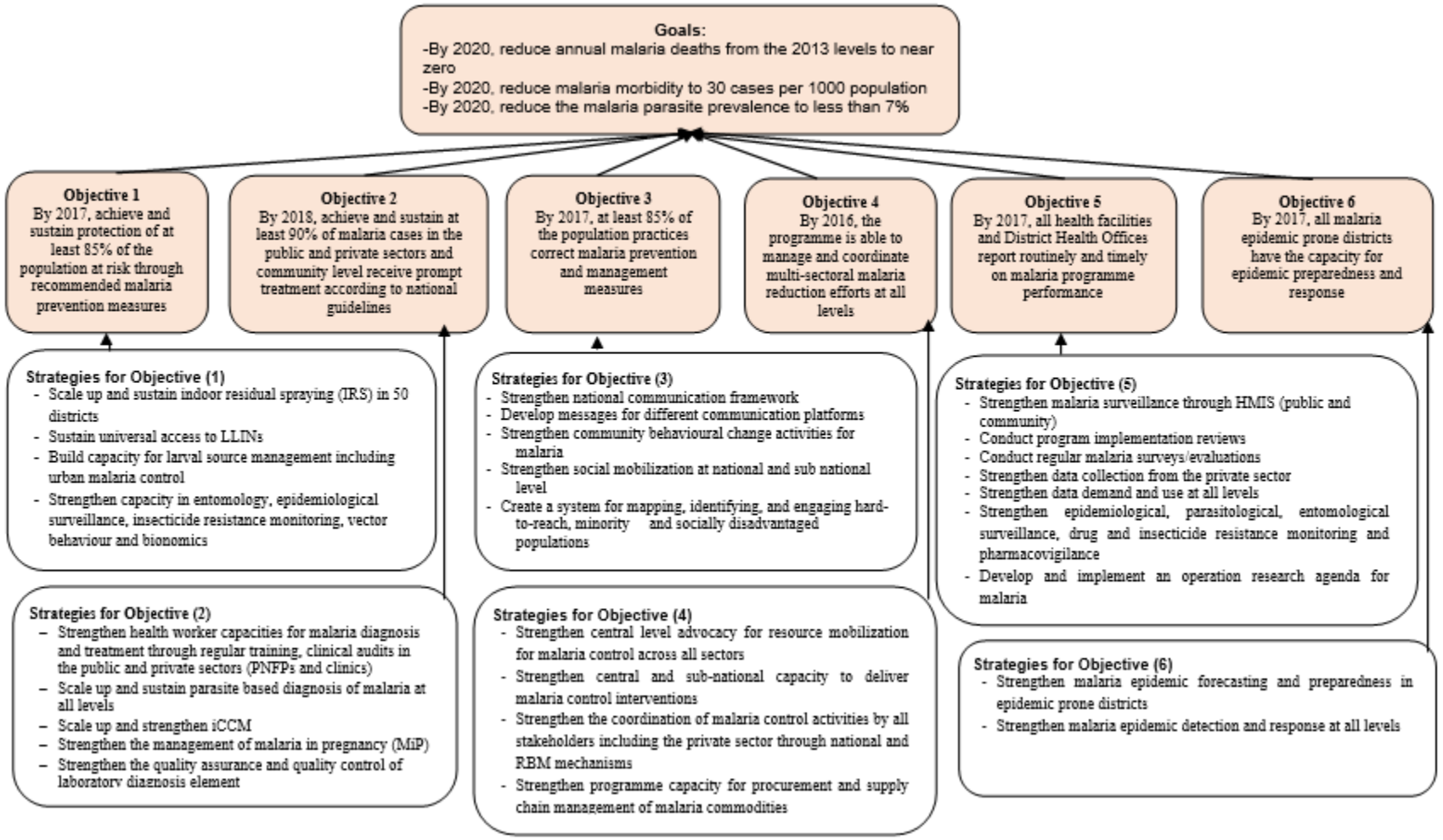
This objective will focus on strengthening malaria surveillance through HMIS (public and community); conducting regular malaria surveys/evaluations and programme reviews; strengthening data collection from the private sector; and strengthening data demand and use at all levels. Also and operational research agenda for malaria will be developed and implemented. Finally, epidemiological, parasitological, entomological surveillance, drug and insecticide resistance monitoring and pharmacovigilance will be strengthened.

1.15.3.6 Objective 6

By 2017, all malaria epidemic prone districts will have the capacity for epidemic preparedness and response

To achieve this objective malaria epidemic forecasting and preparedness in epidemic prone districts will be strengthened as well as its detection and response.

Figure 3: The logic of the plan



1.16 Risks to the Malaria Strategic Plan and M&E plan implementation

The anticipated risks that should be mitigated for the successful implementation of the UMRSP are:

1. Failure to realize the anticipated resources
2. Over dependence on donor support to finance cririca M&E activities
3. Macro-economic instability especially inflation
4. Fragmented programming and implementation
5. Non compliance from the private sector to expected reporting requirements especially the lower level outlets
6. The risk of increasing resistance to to drugs and insecticides following scale up of interventions.
7. Natural disasters

Monitoring and Evaluation Implementation Approach

1.17 Strategic Direction for The Monitoring and Evaluation Strategic Plan

As the country embarks on ambitious targets for malaria control after attaining Universal Coverage, sound monitoring and evaluation of performance and associated impact on malaria burden is essential to guide the interventions carried out within the RBM partnership. It is also important for the NMCP to coordinate partner M&E and define the essential M&E roles necessary for understanding progress in attaining the national targets.

This plan recognizes that the national strategic direction for rapid scale up imparts more demands on M&E implementation especially regarding

a) Increasing emphasis on gathering of timely, accurate and complete information on coverage and quality of services
b) Generating detailed information on specific outcome and impact indicators
c) Monitoring absorption capacity and other critical service delivery support systems (logistics)
d) Improving the capacity to detect epidemics
e) Improving the capacity to detect resistance through regular entomological and theraputic surveillance.

This calls for use of standardized measurement instruments across all partners and levels and to strengthen linkages with the Resource Centre to enhance quality of data and its analysis across technical (e.g. IRS, case management, LLIN) and support (e.g. commodities, human resource) interventions.

1.18 The Role of M&E Unit

The role of the M&E unit will be enhanced to cover weaknesses identified in the Malaria Program Review (MPR) and the Monitoring and Evaluation Systems Strengthening Tool (MESST). The unit will work closely with the Resource Centre and Quality Assurance Department in MoH to ensure that all the core indicators of malaria are included in the District Health Management Information System II (DHIS 2) database, which will be accessible to the M&E team, and a biostatistician will be brought on board to improve data analysis and presentation. All data from facility and non-facility based interventions will be deposited in the

data warehouse within the Resource Centre to enhance ease of access and utilization. The unit will spearhead the revitalization of the M&E and research technical working group of the RBM partnership to ensure conformity to the “one M&E plan” system.

The key M&E plan implementation tasks are:

a) Producing monthly, quarterly and annual results-oriented reports, linked to the NMCP strategic and annual plans.
b) Ensuring that M&E Units assign one or more positions responsible for statistical production, monitoring and evaluation
c) Ensuring that malaria data collection systems and tools are in place and functioning
d) Developing sub-national (regions, districts, HSDs) M&E capacity
e) Planning and budgeting for monitoring and evaluation annually
f) Ensuring that RBM meetings have quality actionable performance review reports.
g) Providing quarterly data and explanatory information on progress against performance indicators to NMCP, RBM, GF, and PMI etc.
h) Ensuring proper coordination and oversight of M&E activities among the partners in relation to the NMCP strategic, annual plans and guidance from M&E TWG.
i) Planning and budgeting for evaluations of all partner projects and programs
j) Utilizing M&E findings to inform NMCP policy, and resource allocation decisions.
k) Quality Assurance through monitoring of quality of service delivery, client satisfaction and tracking of training processes and quality through training information systems

Maintaining a recommendation implementation tracking plan, which tracks review and evaluation recommendations, agreed follow-up actions, and status of these actions.

Ensuring that complete and approved M&E reports and updated statistical data are made easily available to partners and the public in a timely manner, while ensuring that the sharing of reports respects the Access to Information Act.

1.19 Role of Partners in Achieving One M&E Plan

The M&E plan will be implemented within the framework of mandates in the national health system and calls for a transparent and documented process to ensure input of a broad range of stakeholders in the NMCP monitoring and evaluation. Operationalization of this M&E plan will involve institutions at various levels of the health sector as outlined below.

a) **Central Level:** This level will be coordinated through the RBM partnership to which all partners, stakeholders and related sectors operating at national level will report.
b) **Regional Level:** This level will be coordinated by the Regional Performance Monitoring teams (RPMTs) that will liaise between national level and the districts on M&E, support development, implementation, and review of the M&E plans of the districts, including operational research.
c) **Local Government Level**: This level will be coordinated by the district health office and will capture all M&E components (public and non government) in districts, sub-counties, urban councils and private sector based at district level. All facility and non-facility based data on malaria activities at district level should tally with what is presented at national level.
d) **Community Level:** This level includes the LC III councils (sub-county level), parishes, village councils, private sector, CSOs and CBOs. This data should enter the district level.

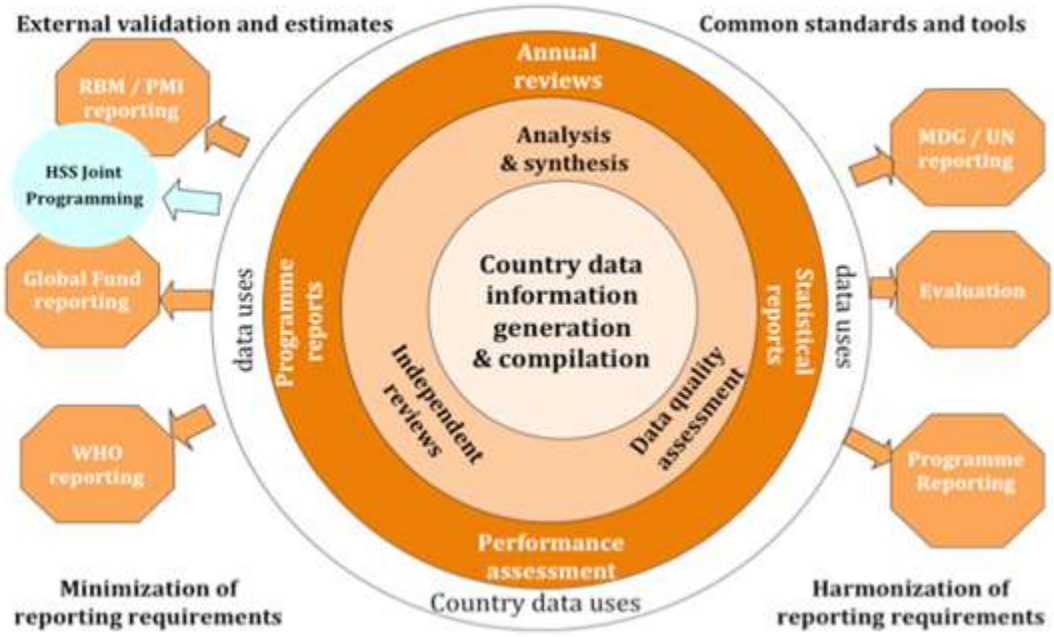
To this effect, all partners are expected to work within one national M&E plan to measure their progress and assess impact. To achieve the one M&E Plan, all partners will need to perform the following:

a) Align their project objectives and activities with National Malaria Strategic Plan and show the appropriate indicators in the M&E plan that they contribute to.
b) Facilitate harmony between the NMCP and partner M&E units.
c) Streamline data flow systems between partners and districts and NMCP to ensure accountability to national goals and targets
d) Build behaviours, relationships and values towards one M&E plan through ensuring clarity, commonality and commitment to M&E purpose.

1.20 Reporting options to ensure targets and indicators are harmonized

The country-led platform for monitoring and reviews of the health sector are laid out in the HSSIP 2010/11 – 2014/15 M&E plan and this serves as the basis for all M&E related processes and reporting options for NMCP. Figure 4 shows the common M&E platform for NMCP strategic plan with country data generation and use processes in the centre.

Figure 4: Country-led platform for monitoring & review of the NMCP strategic plan (WHO)



Global reporting requirements are based on on-going country processes of data generation, compilation, analysis and synthesis, communication and use for decision making as spelled out in the country compact for implementation of the HSSIP. Options for reporting on malaria data exist and relate to international targets. As a member of the global malaria community, the NMCP is mandated to report into the WHO malaria database that ranks the country on the world malaria scale. Other global requirements include reporting to the Global Fund and RBM. Reporting at national level is in alignment with the national investment plan (NIP), joint assessment framework, HSSIP and specific program/project requirements as stipulated in the M&E Plan for the HSSIP. At the district level, reporting is based on the HMIS, which is the main source of statistical data for the health sector. The HMIS system captures weekly surveillance disease data (form 033b), monthly outpatient attendance (form 105) and inpatient data (form 108), and is supposed to capture community level (VHT) data as well. The HMIS integrates critical malaria indicators such as, number of malaria cases treated, cases parasitologically diagnosed, IPTp, LLINs distributed at EPI and ANCs. Most of the data reported is generated from public and PNFP health facilities, but data is missing from the private, for-profit facilities (PHP) where about 60% of malaria cases are estimated to seek treatment. The Resource Center plans to streamline reporting from all stakeholders by

extending the HMIS to PHP health providers who will be reporting through the DHO for onward transmission of their facility data to the resource centre at MoH.

1.21 Existing data quality assurance systems

Since its inception in the NMCP, the M&E unit has not been in position to put data quality assurance (DQA) safeguards in place, due to inadequate funding (funding for the M&E unit, is less than 1% of the NMCP government supported budget). However, efforts to submit quality data have been made. Through the Resource Centre, the DHIS 2 system has been improved to enable entry of data to take place at district and health facility levels. HMIS data from health facilities is usually crosschecked at district level and during area support supervision from the national level. The NMCP has collaborated with the Resource Centre to improve and standardise the data collection tools to ensure quality data is collected. Provisions have been made to support the Resource Centre to conduct DQA activities on a quarterly basis to ensure quality of the DHIS 2 data. Further, standard practice requires that district quarterly support supervisions take place with subsequent HSD supervision of lower HFs within the district. This ensures a step wise approach of checking the data that is ultimately transmitted to the Resource Centre from the sub-national level. Community malaria data, mainly captured by the VHTs, has not been fully embraced in the whole country and provisions have been made to improve on the gains made by the sms based real time data reporting mechanis (m-Trac) at VHT level, to develop a country wide community health management information system (CHMIS), which will provide an opportunity for improving the quality and completeness of data submitted to the district from this team.

1.22 Sector-wide approach and reporting mechanisms among partners

This plan is designed to harness the contribution of partners and other key stakeholders through a coordinated mechanism that not only captures data from partners but also facilitates platforms for reporting. Through regular meetings as stipulated in the AWP 2014/15, reporting mechanisms will be enhanced to enable NMCP to meet national, regional and international targets.

1.23 Plans to strengthen M&E in the MoH

The HMIS at the MOH has been strengthened to expedite timeliness and correctness of the data submitted to the Resource Centre as a way of improving quality. The DHIS 2 electronic software tool has been rolled out throughout the country, which has helped to improve HMIS

data management at all levels of healthcare in the public sector. The MOH is embracing technological tracking of key variables from points of health care in the public sector through m-Trac. This has helped to increase reporting and use of data at district level. NMCP in collaboration with the Resource Centre are coordinating capacity building and training in monitoring and evaluation at district level, especially in the areas of data collection, analysis, interpretation, production of information and use of the data for decision making and programming. The districts have been empowered to take charge of analyzing the data monthly, and providing regular feedback to those generating the data (health facilities that are reporting) and to the public at large through the m-Trac system.

1.24 Dissemination Plan /Information Products

Dissemination of M&E findings is an essential component of good programme management and improvement. Findings will be presented in forms that facilitate understanding by policy-makers, partners and the community. Information on coverage of interventions, current knowledge of malaria risk and any other epidemiological, socio-economic and information relevant for malaria control will also be provided in reports and bulletins. As result of this monitoring and evaluation plan we expect:

a) Monthly monitoring report: Monthly monitoring reports summarize inputs, outputs and track the implementation of planned activities. This information is used by the NMCP to track progress made in program implementation and is a focus of discussion during monthly meetings;
b) Quarterly Roll Back Malaria meetings: Every quarter, RBM partners and NMCP team meet and discuss malaria data and trends inlight of the on-going interventions. This provides a forum for interrogating the process, approaches that are being used so as to maximize efficiency and effectiveness;
c) **Bi-annual performance review meetings of the MOH:** The NMCP reports to Top Management of the Ministry of Health on the performance against set indicators every 6 months. Data and information on key process and output indicators are reported against set targets. Most of this information is merged from monthly and quarterly reports to provide a comprehensive status report that reflects the efforts and investments over the period of reporting. This information builds into the (annual) health sector review and other related processes;

d) **Joint Annual Review Meeting:** The Ministry of Health together with the Health Development Partners conduct joint annual reviews on jointly agreed indicators an annual basis. Malaria indicators are among the selected indicators and progress against set tagets is reviewed annually, which is used to determine cost effectiveness of the investments in Malaria control. The JAR meetings are conducted every year in September with key stakeholders in malaria control and key district officials to review activities of the previous year and to re-prioritiese for the new year. These meetings are used as a window for show-casing best practices to enhance learning;

e) **Annual malaria report** At the end of every financial year, NMCP produces an Annual Malaria Report that highlights key achievements, constraining factors and the way forward. This report feeds into the National Annual Health Sector Report.

f) **Malaria Quarterly bulletin:** This report highlights progress against set indicators on on-going activities by intervention in malaria control and is a basis for discussion in the quarterly RBM meetings. The way forward is used to determine implementation priorities for the next quarter.

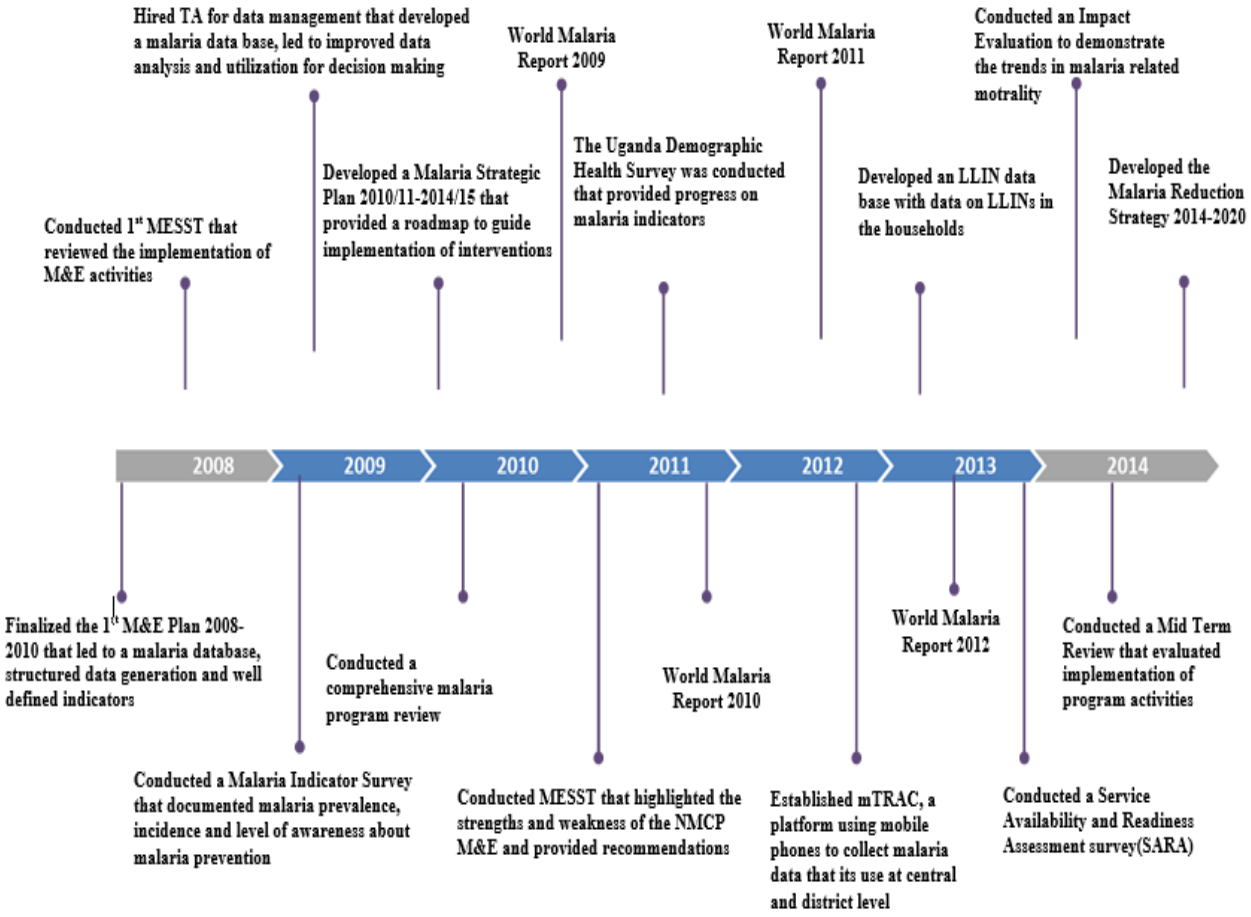
g) **Website:** The website, provides a platform for wider circulation of the progress on malaria interventions against set targets. The malaria quarterly bulletin will be uploaded on the Ministry of Health website to increase the scope of circulation.

h) **Mass Media:** Weekly epidemiological reports highlighting the number of malaria cases and deaths as a result of malaria are published in the Newspapers every Monday. This provides a platform for dissemination of malaria control messages on a regular basis to the general population.

i) **World Malaria Reports:** This report shares the performance of the NMCP in reducing the malaria morbidity and mortality burden and identifies best practices from a global perspective. This report and related information can be accessed on www.who.int/malaria.

This plan has included a dissemination plan which details out the timelines for the different reports and products. (Annex 2 Dissemination Plan)

Figure 5: Achievements in Malaria M&E strengthening



The National Malaria Monitoring and Evaluation Plan

This monitoring and evaluation plan was developed after completion of the UMRSP 2014-2020. The performance framework of the plan and the implementation plan were used to further define indicators and the indicator matrix for monitoring and evaluating the UMRSP 2014-2020.

1.25 Objectives of the National Malaria M&E Plan

The main aim of this malaria monitoring and evaluation plan is tto provide a joint framework for a well-coordinated, systematic and holistic tracking of progress in malaria control, informing refinement and guiding decision-making for program improvement.

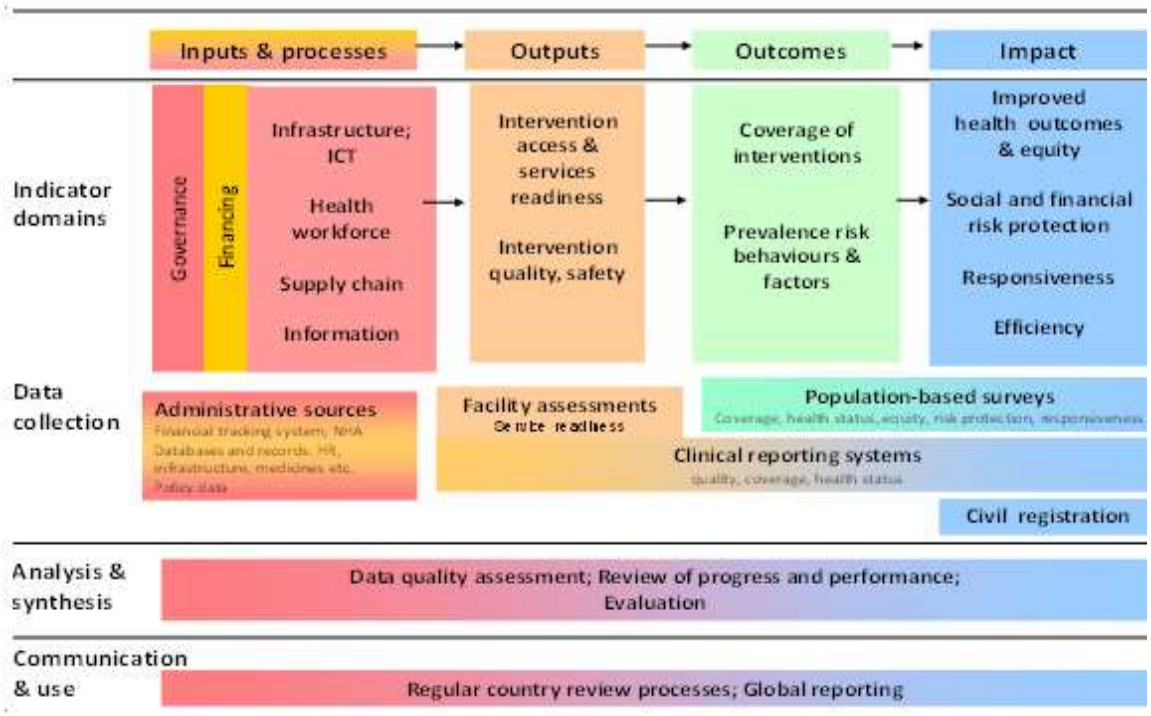
The specific objectives objectives of the plan are:

a) To describe the types of data and data sources, and how data will flow from the source to a central repository and to all relevant stakeholders.
b) To provide a framework for the collection, processing, reporting, analysis and use of malaria data in Uganda
c) To provide standard indicators, targets and frequency of reporting in a standardized format for all malaria implementers and stakeholders.
d) To guide the routine and periodic documentation of planned activities and measure expected outputs, and outcomes and impact when due.
e) To define implementation arrangements with clear responsibility centres.

1.26 Standard M&E Framework

Definition of indicators for the monitoring and evaluation of the malaria program is guided by the standard monitoring and evaluation framework shown in Figure 6. It outlines the relationship of inputs, processes, and the resulting outputs, outcomes, and impact in an monitoring and evaluation system.

Figure 6: Standard M&E Framework



1.27 Logical Framework of the Uganda Malaria Strategic Plan 2014-2020

As outlined in the malaria strategic plan the following is the UMRSP 2014-2020 performance framework (logical framework).

Table 1: Performance Framework of the Uganda MSP 2014-20

Indicators	Baseline	Year	Data Source	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021
Goal 1: By 2020, reduce annual malaria mortality from the 2013 level to near zero.										
1-All-cause under-5 mortality ratio	90	2010	UDHS	56				26		
2-In patient malaria deaths per 100,000 persons per year	29.93	2013	HMIS	21.73	13.53	5.33	5.33	5.33	5.33	5.33
3-Proportion of malaria deaths of total deaths.	18.09	2013	HMIS	16.09	14.09	12.09	10.09	9.09	8.09	7.09
Goal 2: Reduce malaria incidence by 80% of the 2013 levels										
4-Malaria cases per 1000 persons per year	460	2013	HMIS	416.3	372.6	328.9	285.2	241.5	197.8	154.1
Goal 3: Reduce malaria infection prevalence by over 85% of the 2010 level										
5-Malaria parasite prevalence - Proportion of children aged 6-59 months with malaria infection	19%	2014	MIS	9.70%			6.7%			6.7%
Objective 1: By 2017, achieve and maintain protection of at least 85% of the population at risk through recommended malaria prevention measures.										
1.1-Proportion of households with at least 1 LLIN for every 2 people	62%	2014	MIS		77%					35%
1.2-Proportion of the population that slept under LLIN the previous night	69%	2014	MIS		55%					75%
1.3-Proportion of the population protected by IRS (in the last 12 months)	5%	2014	MIS	10%	19%	30%	38%	29%	19%	9%
1.4-Proportion of pregnant women attending ANC 1 who have received two or more doses of	50.10%	2013	HMIS	57%	64%	71%	79%	86%	93%	93%

Indicators	Baseline	Year	Data Source	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021
IPTp										
Objective 2: By 2018, achieve at least of 90% of malaria cases in the public, private sectors and community level receive prompt treatment according to national policy										
2.1-Proportion of suspected malaria cases tested in Public sector	66%	2013	HMIS	66%	69%	72%	75%	78%	81%	84%
2.2-Proportion of suspected malaria cases tested in Private sector	31%	2011	ACTWatch Household Survey	31%	65%	70%	80%	90%	95%	95%
2.3-Proportion of suspected malaria cases tested in the community	85%	2014	HMIS	90%	95%	95%	95%	95%	95%	95%
2.4-Number of VHTs providing malaria testing at community level	37,401	2014	HMIS	53,901	73,701	84,701	95,702	106,702	121,002	136,402
2.5-Proportion of VHTs conducting tests at community level	44%	2014	HMIS	80%	85%	90%	95%	100%	100%	100%
2.6-Proportion of malaria negative tests treated with antimalaria medicines	This indicator can not be calculated from the current HMIS database that does not capture the testing status by patient treated. It will be monitored after operationalizing the new HMIS register which captures the testing status for each case of malaria offered treatment. This indicator will be monitored by a proxy indicator 2.7.									
2.7-Proportion of suspected malaria cases receiving antimalaria treatment without testing	53%	2014	HMIS	46%	39%	32%	25%	18%	11%	4%
2.8-Percentage of HC that reported no stock out of first line anti-malarial medicines (ACTs) lasting	85%	2013	HMIS	86	87%	88%	89%	90%	91%	92%

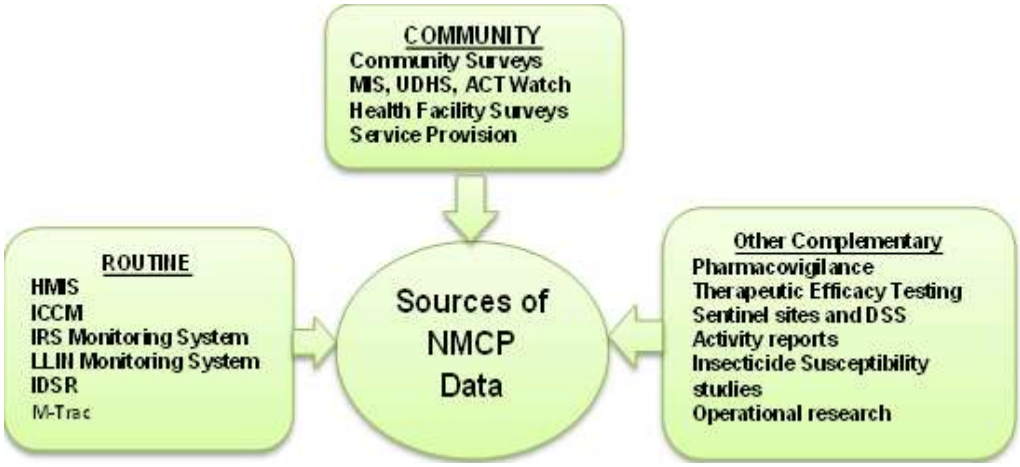
Indicators	Baseline	Year	Data Source	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021
more than 7 days in the previous month										
Objective 3: By 2017 at least 85% of the population has correct behaviours and practices about malaria prevention and treatment										
3.1-Proportion of under 5 children with confirmed malaria receiving correct treatment within 24 hours of onset of symptoms	46.4%	2011	UDHS		64%					81%
3.2-Proportion of care givers who know malaria prevention measures	86%	2009	MIS	90%		90%		90%		90%
3.3-Proportion of national health budget allocated to malaria control	This indicator requires sub-analysis from the national health accounts which have not been prepared for sometime.									
3.4-Proportion of funds disbursed to the program that are spent according to the workplan (Absorption rate)	77%	2014	Expenditure analysis reports	100%	100%	100%	100%	100%	100%	100%
3.5-Proportion of actions generated from RBM coordination meetings that are implemented	50%	2013	RBM Meeting Minutes	100%	100%	100%	100%	100%	100%	100%
Objective 4: By 2016, the programme is able to manage and coordinate multi-sectoral malaria reduction efforts at all levels										
4.1-Proportion of actions generated from RBM coordination meetings that are implemented	50%	2013	RBM Meeting Minutes	50%	70%	80%	100%	100%	100%	100%
Objective 5: By 2018, all districts report routinely on malaria programme performance for decision making										
5.1-Proportion of districts submitting quarterly malaria reports with in stipulated time frames.	0%	2013	Quarterly district	10%	40%	60%	70%	80%	90%	100%

Indicators	Baseline	Year	Data Source	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021
			reports							
5.2-Proportions of health units reporting (public and private)	88%	2013	HMIS	88%	90%	92%	92%	92%	92%	92%
5.3-Proportion of partners providing data/reports to NMCP	0%	2013	Partner Reports	50	100%	100%	100%	100%	100%	100%
5.4-Proportion of research agenda studies conducted and findings disseminated at the national malaria forum	50%	2013	Research reports	70%	90%	90%	90%	90%	90%	90%
Objective 6: By 2017, all malaria epidemic prone districts will have the capacity for epidemic preparedness and response										
6.1-Proportion of epidemic prone districts with annual epidemic preparedness and response plans.	0%	2013	EPR Annual Plans	19%	95%	95%	95%	95%	95%	95%
6.2-Proportion of reported epidemics detected on time.	50%	2013	EPR Annual Reports	80%	80%	90%	100%	100%	100%	100%
6.3-Proportion of epidemics responded to	50%	2013	EPR Annual Reports	100%	100%	100%	100%	100%	100%	100%

Malaria Data Collection and Reporting

Data collection for M&E indicators will utilize both qualitative and quantitative methods using standardized data collection tools and analysis techniques. These methods will be routine (activity reports, supervision reports, HMIS); periodic reviews (programme reviews & health facility surveys), population based surveys and research.

Figure 7: Sources of data



The Malaria strategic plan shall be supported and implemented by several actors or stakeholders where data will be generated. Some of these stakeholders shall include the community, public health facilities, private sector, NGOs, line ministries, government bodies, autonomous bodies, bilateral and multilateral agencies. All these stakeholders, depending on their different roles, will generate information that this plan will monitor and evaluate. There shall be four main sources of data: routine sources e.g. activity and supervision reports plus HMIS; national disease surveillance systems; periodic household surveys, and operational research.

1.28 Routine data collection

1.28.1 Health Management Information System

The HMIS serves as the primary clinical services monitoring system for the MoH. The Resource Centre is the repository of all key malaria information reported. HMIS data is collected on special standard forms and is disaggregated by sex and age (under 5 and

above 5 years). The collected malaria variables include suspected malaria cases at OPD, number of suspected malaria cases tested by microscopy and RDT, number of confirmed malaria cases at OPD, number of inpatient malaria cases, number of clinical and confirmed inpatient malaria cases, number of malaria deaths, antenatal attendance, IPT1 and IPT2. The HMIS also collects information on stock out of first and second line anti-malarial medicines and other health management indicators.

The transformation into the DHIS2 and its integration with m-TRAC has greatly improved data capture, collation and analysis. The mTRAC system utilizes mobile phones to submit real-time data (using Rapid SMS technology) to transmit data to the central servers. It supplements DHIS2 by tracking stocks of medicines and RDTs including consumption patterns.

1.28.2 Activity Reports

Monitoring and evaluation of the MSP shall cover all stages of the performance framework from inputs, processes, outputs, outcomes and impact. Activity reports compiled immediately after an activity will be collected from relevant implementers and data synthesized for use at NMCP level. These activity reports shall cover all intervention areas like ITN procurement and distribution, IRS activities, case management related activities like trainings etc. The focal point officers at NMCP will be responsible for coiling the activity reports and submitted to the M&E unit for further analysis.

1.28.3 Supervision reports

NMCP conducts periodic integrated support supervision for malaria. Support supervision is conducted at the district level by the DHT. In addition, the Ministry of Health also conducts joint support supervision with government development partners annually. All the information gathered will be analysed for use by the programme.

1.29 National Disease Surveillance System

1.29.1 Integrated Disease Surveillance (IDSR)

Adopted in 2001, Integrated Disease Surveillance and Response in Uganda is the weekly epidemiological surveillance reporting system that reports on diseases of epidemic potential. This system provides data on malaria cases and deaths on a weekly basis. The Resource Centre has expanded the IDSR to incorporate more data on malaria.

1.29.2 Sentinel sites

Sentinel sites were first established by the Uganda Malaria Surveillance Project (UMSP) and the MOH in 2001 to determine the efficacy and safety of antimalarial drugs in epidemiologically different sites. Currently, the sites provide data on malaria cases presenting at the health facility and data on case management practices. There are 26 inpatient and 26 outpatient sites, located in Kabale, Kanungu, Tororo, Mubende, Apac, and Jinja. This data is reported through the routine HMIS, but also through a monthly report, disseminated to malaria stakeholders and an open-access website (www.umsp.muucsf.org).

1.29.3 Demographic Surveillance Site

The Demographic Surveillance Site (DSS) is operated by Makerere University in Mayuge and Iganga districts. It monitors a defined population measuring births, deaths, and the most common causes of child mortality including malaria attributable deaths.

1.29.4 Pharmacovigilance

The pharmacovigilance system in Uganda is not well developed. Based on the WHO model, the National Drug Authority of Uganda (NDA) has designed a generic form to collect passive reporting data on all medicines. However, the reporting of adverse drug reactions (ADR) as part of the pharmacovigilance system in Uganda is not fully functional, nor utilized. Partners have supported the development and limited roll out of

the system, providing training, forms and equipment, but reporting has been limited and follow up remains difficult as reports often come late and cases, thus, difficult to identify.

1.30 Health Surveys

The three main population based surveys conducted in Uganda are;Demographic and Health Survey,National Household Survey and Malaria Indicator Survey.These surveys are mainly carried out by Uganda Bureau of Statistics (UBOS) with support from partners and provide useful measures of household-based coverage indicators for gauging impact of interventions.

1.30.1 Demographic and Health Survey

The Uganda Demographic and Health Survey (DHS) is conducted everyfour years. It includes a malaria module with standardized questions on coverage of key interventions.

1.30.2 The National Household Survey

Uganda conducts a National Household Survey every three (3) years.It is a population-based and national surveys. Apart from economic indicators, collects and reports on a number of malaria indicators. Over the period covered by this plan, two household surveys will provide data on various malaria indictors.

1.30.3 Malaria Indicator Survey

The first Malaria Indicator Survey in Uganda was done in 2009 and will be conducted again in 2014 and every other three years.

1.30.4 ACTwatch Study

ACTwatch Study is also population based, the first having been conducted in 2008 and another 2011 aimed at generating evidence for policy makers on methods to increase availability and decrease the consumer price of quality assured ACTs in both private and public sectors. It collects information on health seeking behaviour and appropriate treatment (ACTs).

1.30.5 Small Scale Studies

Smaller scale household surveys are conducted periodically when there is a specific question requiring an answer to quickly gauge the impact of interventions while awaiting other surveys like MIS. For example, post ITN distribution or post IRS surveys.

1.30.6 Health Facility Surveys

In 2007, the Uganda Service Provision Assessment (SPA) Health Facility Survey was undertaken. This assessment is a nationwide facility-based survey designed to collect information on the availability and quality of reproductive and child health care, infectious disease (malaria, TB and HIV/AIDS) services provided to men, women and children in public, private and not for- profit health facilities throughout the country.

1.31 Operational research

1.31.1 Therapeutic efficacy testing

TET has been conducted regularly to monitor and assess the efficacy of various antimalarial drugs. The results from these studies have been used to inform treatment policy change. These studies are conducted every two years to ensure resistance to antimalarials is identified in a timely manner.

1.31.2 Insecticide Susceptibility studies

Uganda has had a long history of insecticide use for both public health and agriculture. As such, insecticide resistance testing is critical to ensure that effective chemicals are used for malaria vector control. Resistance testing has been conducted every two years (starting in 2009 and again in 2011) across the country testing all WHOPES approved chemicals for IRS and ITNs. These studies have led to changes in the insecticide used for IRS and also informed the development of a rational vector control strategy for the country.

Table 2: Detailed Action Plan and Budget

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Printing & dissemination																											**8,530,636**
Print 500 copies of the M&E Plan	MOH	WHO/RBM/SMP			X																						6,000
Central level dissemination meeting for Strategic plan and M&E plan	MOH	RBM/SMP					X							X													114,356
Review and disseminate HMIS tools	MOH	MOH				X				X																	100,700
Dissemination of the Malaria Indicator Survey Reports	MOH	MOH						X												X							96,000
Capacity building																											
Training of staff in HMIS	MOH	GF			X				X				X				X				X				X		2,764,200
Routine DQA training for M&E staff	MOH	GF				X			X			X				X				X				X			5,449,380
Activity monitoring																											**13,517,406**
Conduct baseline and post-line	NMCP, Abt	MOH/PMI				X				X				X				X				X				X	467,143

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
entomological surveys																											
Conduct regular integrated/joint supportive supervision	MOH	MOH/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	107,700
Conduct Supervision and inspection in public, private and private-not-for-profit sectors)	MOH	MOH/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2,590,600
Conduct post market surveillance of ACTs and RDTs	MOH	NDA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Conduct mentorship and supervision of VHTs by assigned health workers	MOH	MOH/DLGs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4,355,222
Conduct quarterly stock status review meetings	MOH	MOH/Pharm Division/NMCP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12,000
Monitor availability and pricing of malaria commodities at private sector health facilities	MOH	MOH/ACT-watch			X				X				X				X				X				X		811,429

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Conduct malaria sentinel surveillance	MOH	UMSP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	282,000
Supervise, monitor and evaluate IRS activities	MOH	MOH/PMI/Abt				X				X				X				X				X				X	4,271,312
Conduct post epidemic evaluation meetings of malaria epidemics	MOH	MOH/WHO				X				X				X				X				X				X	620,000
Epidemiological monitoring																											**1,498,286**
Conduct vector mapping nationwide	MOH	MOH/DFID/PMI								X									X								467,143
Conduct parasite mapping nationwide	MOH	MOH/DFID/PMI								X									X								467,143
Conduct detailed mapping and malaria epidemiological profiling within major towns and cities	MOH	MOH/DFID/PMI		X				X				X				X				X				X			282,000
Develop/update stratification map using routine data	MOH	MOH/DFID/PMI										X				X				X				X			282,000

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Implementation reviews																											**2,016,000**
Conduct quarterly in-country RBM partnership coordination meetings	MOH	MOH/RBM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	450,000
Conduct quarterly malaria thematic working group meetings	MOH	MOH/RBM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	450,000
Hold malaria policy review meetings bi-ennually	MOH	MOH/RBM								X								X								X	450,000
Conduct annual review and planning meetings	MOH	MOH/RBM			X				X				X				X				X				X		450,000
Conduct mid-term and end-term reviews of the strategic plan	MOH	MOH/RBM											X													X	216,000
Conduct bi-weekly situation room teleconferencing	NMCP	MOH/WHO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Strengthening malaria information system																											**765,900**
Develop/adapt appropriate supervision and monitoring tools for	MOH	MOH				X				X																	0

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
private health providers (refer to dissemination of HMIS tools)																											
Collect, collate and report malaria data through HMIS	MOH	MOH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	765,900
Evaluations and surveys																											**6,680,000**
Monitoring coverage and use of LLINs at household level – post distribution and utilization survey (Covered by MIS & UDHS)	MOH	MOH/DFID/PMI		X				X				X								X							0
Conduct health facility assessments	MOH	MOH/DFID/PMI																									0
Conduct health facility surveys including SARA	MOH	MOH/DFID/PMI											X				X				X				X		680,000
Conduct Malaria Indicator Surveys	MOH	MOH/DFID/PMI		X								X								X							6,000,000
Conduct UDHS	MOH	MOH/DFID/PMI		X																				X			0

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
National Household Surveys	MOH	MOH/DFID/PMI													X												0
Strengthening data collection, collation, analysis and use																											**18,100**
Adapt and disseminate HMIS tools to facilitate private sector reporting	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Collect, collate and report weekly malaria surveillance data (m-Trac)	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Produce quarterly bulletins	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Produce annual malaria report	MOH	MOH/DFID/PMI				X				X				X				X				X				X	18,100
Quality Assurance and Quality control																											**9,491,800**
Conduct wall bio-assays to assess the quality of spray (refer to row 12 post-IRS entomological survey).	MOH	MOH/DFID/PMI																									0

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Screen quality of antimalarials on the market (refer to row 15 Post Market surveillance of ACTs)	MOH	MOH/DFID/PMI																									0
Conduct continuous RDT Field quality monitoring at health facility	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Conduct periodic WHO Malaria Microscopy competence assessments for Lab Techs	MOH	MOH/DFID/PMI																									0
Conduct post shipment quality checks at port of entry of Malaria RDTs	MOH	MOH/DFID/PMI																									0
Conduct Blood slide validation at reference/District laboratories	MOH	MOH/DFID/PMI																									0
Conduct data quality assessments/audits	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	9,491,800

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Operational Research																											**2,819,800**
Define a malaria operational research agenda	MOH	MOH/DFID/PMI			X				X				X				X				X				X		14,400
Conduct Market research	MOH	MOH/DFID/PMI																									0
Assess impact of BCC Outsource – ipsossynovate	MOH	MOH/DFID/PMI																									0
Monitoring field efficacy of LLINs including longevity	MOH	MOH/DFID/PMI						X								X								X			0
Conduct entomological studies to establish vector susceptibility for qualified insecticides	MOH	MOH/DFID/PMI																									0
Explore other chemo-preventive interventions such malaria vaccine subject to available evidence	MOH	MOH/UMSP																									0
Conduct Operational research to improve uptake and guidelines for	MOH	MOH/																									0

Activities	Responsible	Partners	14/15				15/16				16/17				17/18				18/19				19/20				Budget (in USD)
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
malaria RDTs																											
Conduct Therapeutic Efficacy studies	MOH	MOH/UMSP			X							X								X							1,567,800
Conduct vector bionomics studies (refer to row 12 post-IRS entomological survey).	MOH	MOH/PMI/Abt																									955,600
Conduct insecticide susceptibility studies	MOH	MOH/DFID/PMI								X								X								X	282,000
Conduct operations Research on iCCM KAPS, diagnostics, ANC, LLINs, ACT availability, efficacy studies	MOH	MOH/DFID/PMI	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Table 3: Indicator Reference Matrix

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
Impact indicators							
1. All cause under 5 mortality ratio	The probability of dying before the 5th birthday, expressed per 1,000 live births **Unit of measure: rate**	Region	UDHS	Every 5 years	National	NMCP, PMI/USG & UBOS	Current is the DHS (2011)
2. In-patient malaria deaths (per 100,000 per year)	Numerator: Number of Inpatient malaria deaths x 100,000 Deniminator: Total Population	Age Sex	HMIS	Monthly	Public & PNFP	NMCP/MOH	
3. Proportion of malaria deaths of total deaths	Numerator: Number of Inpatient malaria deaths Deniminator: Total inpatient death	Age Sex	HMIS	Monthly	Public& PNFP	NMCP/MOH	
4. Proportion of children under five (0 – 59 months) with malaria parasites (Parasite prevalence)	**Numerator:** Number of children aged 0-59 months found with malaria parasites at the time of the survey **Denominator:** Number of children aged 6-59 months in the survey sample, multiply by 100 **Unit of measure: Percentage**	None	MIS	3yrs	National	NMCP & UBOS	Surveys conducted during the high-transmission season for malaria
5. Reported Malaria cases (per 1,000 persons per year)	**Numerator:** Number of both suspected + confirmed malaria cases per year X 1000. **Denominator:** Total Population **Unit of measure: Rate**	Age Sex Geography	HMIS 105	Biannual	Public & PNFP	NMCP, RC	Computation: Numerator (a): Number of both suspected + confirmed malaria cases from HMIS (Row 27 from HMIS 105, Denominator (b): Total midyear population (all ages). Multiply (a/b) by 1000
6. Confirmed malaria cases (microscopy or RDT) per 1,000 persons per year (or annual malaria incidence)	Number of confirmed malaria cases during one year, expressed per 1000 persons per year. **Numerator (a):** Number of confirmed malaria cases **Denominator (b):** Total midyear population (all ages). **Unit of measure:** Rate	Age Sex Geography	HMIS 105	Biannual	Public & PNFP	NMCP, RC	
7. Inpatient malaria cases (per 1,000 persons per year);	**Numerator:** total inpatient malaria admissions. (N) **Denominator:** total population (D) multiply this by 1000 i.e. N/D*1000	None	HMIS 108	Biannual	Public & PNFP	NMCP, RC	Monthly Health Unit In-Patient Report HMIS Form 108 routinely collates information on in-patient malaria admissions and deaths by

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
	Unit of measure: rate						diagnosis (Row 20).
8. Proportion of children 0 –59 months old with anaemia	Anaemia is when haemoglobin level < 11 g/dl. **Numerator:** Number of Children With Anaemia **Denominator:** Total Children 0 – 59 Surveyed	Severity: Sever (< 8 g/dl) Moderarte (9 – 11 g/dl)	MIS	3yrs	General population	MoH, NMCP	
9. Percentage of OPD visits attributed to malaria	**Numerator:** Number of OPD visits attributed to malaria X 100 **Denominator:** Total OPD visits	Sex Age	HMIS 105	Monthly	Public, PNFP & PFP	MoH, NMCP	
Outcome Indicators							
10. Proportion of deaths attributed to malaria among children under five admitted at the health facilities due to malaria (Malaria Case fatality)	**Numerator:**Number of deaths at health facilities among children under five with confirmed malaria diagnosis during the reporting quarter **Denominator:**Total number of confirmed malaria diagnosis admissions in children under five reported at the health facility during the reporting quarter **Unit of measure: Percentage**	Age Gender	HMIS 108	Quarterly, Annual	Monthly summary of HF registers.	NMCP	Deaths can be from health facilities or other deaths recorded in HMIS. Malaria should be recorded as the primary cause of death Will depend on quality of reporting from higher level facilities
11. Proportion of health facilities that reported no stock outs of first line anti-malarial medicines(ACTS) lasting more than 7 days in the previous month	**Numerator:** Number of health facilities that reported no stock outs of first line anti-malarial medicines (ACTS) lasting more than 1 day in any reporting period **Denominator:** Total Number of functional Health facilities **Unit of measure:** Percentage	Ownership Level	HMIS 105	monthly	Monthly summary of HF registers, cumulative	NMCP	
12. Proportion of under 5 children with confirmed malaria receiving treatment within 24 hours from onset of fever	**Numerator**: Number of Children under 5 with confirmed malaria receiving treatment within 24 hours of onset of fever **Denominator**: Number of Children under 5 with confirmed malaria	Gender Age	HMIS UDHs MIS NHS	Monthly Every 5 yrs Every 3 yrs Every 4 yrs	Monthly summary of HF registers	NMCP	

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
13. Percentage of outpatient malaria cases that received an appropriate antimalarial treatment according to national policy	**Numerator**: Number of OPD malaria cases who received an appropriate antimalarial treatment according to national policy **Denominator:** Number of OPD malaria cases **Unit of measure: Percentage**	Age Sex	HMIS 105	Monthly	Monthly summary of HF registers	NMCP	
14. Confirmed malaria cases that received first-line antimalarial treatment according to national policy	**Numerator:** Number of malaria cases that received first-line antimalarial treatment according to national policy X 100 **Denominator:** Number of malaria cases that received any first-line antimalarial treatment **Unit of measure: Percentage**	Sex Age	HMIS 105	monthly	Monthly summary of HF registers	NMCP	
15. Proportion of severe malaria cases treated according to national policy at health facilities	**Numerator:** Number of severe malaria cases treated according to national policy at health facilities X 100 **Denominator:** Number of severe malaria cases treated at health facilities **Unit of measure: Percentage**	Sex Age Sector (public, private or community)	HMIS 105	monthly	Monthly summary of HF registers	NMCP	
16. Proportion of suspected outpatient malaria cases with a laboratory confirmation for children at the health facility. (Test Ratio)	**Numerator:**Number of outpatients with fever seen by health workers who had microscopy and RDT in OPD**Denominator:** Total number of outpatients with fever seen at health facilities **Unit of measure: Percentage**	None	HMIS 105	Quarterly	Monthly summary of HF registers	NMCP	
17. Proportion of suspected malaria cases that are tested	Numerator: Number of suspected malaria cases that are tested Denominator Total number of suspected malaria cases **Unit of measure: Percentage**	Age Sex	HMIS	Monthly	Monthyl	NMCP/MoH	
18. Proportion of suspected malaria cases tested in the public sector	Numerator: Number of suspected malaria cases that are tested in the public sector Denominator Total number of suspected malaria cases in the public sector **Unit of measure: Percentage**	Age Sex	HMIS	Monthly	Monthyl	NMCP/MoH	
19. Proportion of suspected malaria	Numerator: Number of suspected malaria cases that are						

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
cases tested in the private sector	tested in the private sector Denominator Total number of suspected malaria cases in the private sector **Unit of measure: Percentage**	Age Sex	HMIS	Monthly	Monthyl	NMCP/MoH	
20. Proportion of suspected malaria cases tested in the community	**Numerator:** Number of suspected malaria cases that are tested in the community **Denominator**: Total number of suspected malaria cases in the community **Unit of measure: Percentage**	Age Sex	HMIS	Monthly	Monthyl	NMCP/MoH	
21. Proportion of clinical malaria cases that are confirmed by microscopy/RDT at health facility level	**Numerator:** Number of clinical malaria cases that are confirmed by microscopy/RDT **Denominator:** Number of OPD malaria cases treated at the health facilities **Unit of measure: Percentage**	None	HMIS 105	Quarterly	Monthly summary of HF registers	NMCP	
22. Malaria test positivity rate.	**Numerator:** Number of positive Malaria cases **Denominator:** Total number of malaria tested **Unit of measure :** Percentage	Under 5 yrs, 5 yrs. and above	HMIS 105	Quarterly	Monthly summary of HF registers	NMCP	This is confined to POD laboratory tests only (passive detection) and will monitor impact on malaria transmission. The indicator will also differentiate between annual TPR and monthly/peak season TPR.
23. Number of admissions of children under five due to malaria	**Number** Inpatient malaria admissions in children under five **Unit of measure:** Number	None	HMIS 108	Quarterly, Annual	Monthly summary of HF registers	NMCP	Cases with a primary diagnosis of malaria at discharge (and not admission). It is assumed that all cases would have had a parasite-based test for malaria (microscopy and/or RDT) and discharge diagnosis was based on test results. It will monitor impact of program on severe disease.
24. Proportion of admissions due to malaria	**Numerator:** suspected malaria admissions **Denominator:** Total number of admissions in the respective age group	under 5 yrs, 5 yrs and above	HMIS 108	Quarterly	Monthly summary of HF registers	NMCP	Cases with a primary diagnosis of malaria at discharge (and not admission). It is assumed that all cases would have had a parasite-

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
	Unit of measure: Percentage						based test for malaria (microscopy and/or RDT) and discharge diagnosis was based on test results. It will monitor impact of program on severe disease.
25. Proportion of women who received 2(+) doses of IPTp through ANC at the health facility	**Numerator:** Number of women who received two or more doses of recommended antimalarial drug treatment as IPTp through ANC **Denominator:** Total number of women presenting to ANC for 1st visit. **Unit of measure: Percentage**	None	HMIS 105	Monthly Quarterly Annual	Monthly summary of HF registers	NMCP	Currently over 90% ANC coverage for the first visit and 60% second visit. At least 80% of pregnant women attending ANC should receive at least two doses of IPT
26. Proportion of women attending antenatal clinics who received three or more doses of intermittent preventive treatment for malaria	**Numerator:** Number of women who received three or more doses of recommended antimalarial drug treatment as IPTp through ANC **Denominator:** Total number of women presenting to ANC for 1st visit. **Unit of measure: Percentage**	None	HMIS 105	Monthly Quarterly Annual	Monthly summary of HF registers	NMCP	
27. Proportion of health facilities with no stock outs of recommended drug for IPTp during the last one month	**Numerator:** Number of health facilities that reported no stock outs of recommended drug for IPTp lasting more than 1 day in any reporting period **Denominator:** Total Number of functional Health facilities **Unit of measure:** Percentage	Ownership Level	HMIS 105	monthly	Monthly summary of HF registers, cumulative	NMCP	
28. Proportion of women who gave birth in the last 2 years and received 2(+) doses of IPTp during their last pregnancy	**Numerator:**Number of women at risk for malaria who received two or more doses of a recommended antimalarial drug treatment to prevent malaria during their last pregnancy that led to a live birth within the last two years **Denominator:**Total number of women surveyed at risk	None	UDHS MIS	3/5 years	Survey	NMCP, PMI UBOS	

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
	for malaria who delivered a live baby within the last two years **Unit of measure: Percentage**						
29. Proportion of households with at least one ITN	**Numerator:** Number of households surveyed that own at least one ITN **Denominator:** Number of households surveyed **Unit of measure: Percentage**	None	UDHS MIS	3/5 years	Survey	NMCP/PMI/ UBOS	2 persons per mosquito net is the suggested upper limit for assessing appropriate coverage. However, the NMCP wants to look at 1 net.
30. Proportion of population that slept under LLIN the previous night(disaggregated by sex)	**Numerator:** Number of households that own at least 2 ITNs **Denominator:** Number of households surveyed **Unit of measure: Percentage**	None	UDHS MIS	3/5 years	Survey	NMCP/PMI/ UBOS	
31. Proportion of households with universal coverage of ITNs (1 net/2 people)	**Numerator:** Number of households with sufficient nets to cover 1 net/2 people **Denominator:** Number of households surveyed **Unit of measure: Percentage**	Age	DHS MIS	3/5 years	Survey	NMCP/PMI/ UBOS	
32. Proportion of children under five years old who slept under an LLIN the previous night	**Numerator:** Number of children under five years who have slept under an ITN the previous night (before the survey) **Denominator:** Total number of children under five years who slept in surveyed households the previous night **Unit of measure: Percentage**	None	UDHS, MIS	5 years	Survey	NMCP/PMI/ UBOS	
33. Proportion of targeted risk groups receiving LLINs	**Numerator:** Number of persons in a given risk receiving LLINs **Denominator:** Total population in a given risk group receiving LLINs **Unit of measure: Percentage**	Pregnant women Children <5, Migrants, etc.					
34. Proportion of population at risk potentially covered by LLINs distributed	**Numerator:** Number of persons in a given risk receiving LLINs **Denominator:** Total population in a given risk group that have LLINs **Unit of measure: Percentage**						
35. Proportion of households with at	**Numerartor**: Number households with at least one LLIN	None	MIS	Annual	Population	NMCP/Partn	

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
least one LLIN for every two people and/or sprayed by IRS within the last 12 months	for every two people and/or sprayed by IRS within the last 12 months X 100 **Denominator:** Total households surveyed **Unit of measure: Percentage**					ers	
36. Proportion of population that slept under an LLIN the previous night	**Numerator:** Number of the population that slept under an ITN the previous night (before the survey) **Denominator:** Total population in surveyed households the previous night **Unit of measure: Percentage**	Age pregnancy status, geographical location	UDHS, MIS	3/5 years	Survey	NMCP/PMI/ UBOS	
37. Proportion of pregnant women that slept under an LLIN the previous night	**Numerator:** Number of pregnant women who slept under an ITN the previous night (before the survey) **Denominator:** Total number of pregnant women who slept in surveyed households the previous night **Unit of measure: Percentage**	None	UDHS, MIS	3/5 years	Survey	NMCP/PMI/ UBOS	
38. Proportion of people aware of malaria prevention measures	**Numerator**: Number of people interviewed aware of malaria prevention measures **Denominator:** Number of people interviewed in the survey **Unit of measure: Percentage**	By ITN, IRS, IPTp	UDHS, MIS	3/5 years	Survey	NMCP/ PMI / UBOS	-
39. Proportion of targeted houses sprayed with a residual insecticide in the last 12 months	**Numerator**: Number of occupied houses in the IRS program target area adequately sprayed with a residual insecticide in the last 12 months **Denominator:** Total number of targeted houses in target area **Unit of measure: Percentage**	None	IRS partners	Annually	Review of activity reports	NMCP/ PMI	This will be done by district and disaggregated by rural urban
40. Proportion of persons protected after IRS spraying	**Numerator:** number of persons who slept in a house that was sprayed **Denominator:** Total targeted population **Unit of measure: Percentage**	Pregnant women Children under 5	IRS partner report, NMCP activity reports	Biannual	Activity Report reviews	NMCP/PMI	
41. Proportion of children under five years old with fever in the last two weeks who received treatment with ACTs according to national policy	**Numerator**: Number of children under five who had a fever in the two weeks prior to a survey who received ACTs for treatment within 24 hours of onset of fever **Denominator:** Total number of children under five who	Sex Sector (Public,	UDHS, MIS HMIS	3/5 years	Survey HMIS	NMCP, Partners, UBOS	

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
within 24 hours of onset of fever	had a fever reported for the two weeks prior to a survey **Unit of measure: Percentage**	Private or community)					
42. Proportion of children under five years old with fever in the last two weeks who received treatment with any antimalarial drug	**Numerator:** Number of children under five who had a fever in the two weeks prior to a survey who received any antimalarial drug **Denominator: Total** number of children under five who had a fever reported for the two weeks prior to a survey **Unit of measure: Percentage**	None	UDHS, MIS	3/5 years	Survey	NMCP/PMI/ UBOS	This indicator will be obsolete as coverage of ACTs in the private sector increases
43. Proportion of health facilities with no reported stock outs of the nationally recommended anti malarial drugs lasting more than 1 week at anytime time during the past 3 months (public and PNFP); or during the last month (HMIS)	**Numerator:** Number of health facilities with no reported stock outs of nationally recommended ACTs (1st line anti malarial) lasting one week or longer at any time during the past three months **Denominator**: Total number of (Public +PNFP) health facilities reporting; if done through support supervision denominator: total number of HF supervised. **Unit of measure: Percentage**	By first line and second line antimalarials	Support supervision and /or HMIS	Quarterly,	Support supervision reports, review of health facility records.	NMCP	Based on national definition of stock out
44. Proportion of people aware of the correct treatment for malaria	**Numerator:** Number of people aware of the correct treatment for malaria(ACTs) **Denominator: Total** number of people surveyed **Unit of measure: Percentage**	None	UDHS, MIS	3/5 years	Survey	NMCP/PMI/ UBOS	Will also benefit from sub national SBCC M&E data
45. Proportion of caregivers who know that children under five with fever should be seen by a health provider within 24 hours of fever onset	**Numerator:** Number of caregivers who know that children under five with fever should be seen by a health provider within 24 hours of fever onset **Denominator:** Total number of people surveyed (in households with children) **Unit of measure: Percentage**	None	UDHS MIS	3/5 years	Survey	NMCP/UBOS	Will also benefit from sub national SBCC M&E data
46. Proportion of caregivers who sought care from a health provider for a fever	***Numerator:*** Number of caregivers who sought care from a health provider for a fever **Denominator:** Total number of caregivers covered by the survey who had a child with fever	None	UDHS MIS	3/5 years	Survey	NMCP/UBOS	
Output and Process							
47. Administrative universal LLIN	**Numerartor:** Number of LLIN distributed	Age					

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
coverage	**Denominator:** (Total population)/2	Administrative or geographic area	UDHS MIS	3/5 years	Survey	NMCP/UBOS	
48. Number of targeted structures sprayed with IRS	Number of occupied houses in the IRS program target area sprayed with a residual insecticide **Unit of measure: Number**	None	IRS partner report, NMCP activity reports	Biannual	Activity Report reviews	NMCP/PMI	Data confirmed by district reports
49. Number of SP doses distributed to ANC clinics	Number of SP doses distributed to ANC clinics **Unit of measure: Number**	None	Pharmacy division updates reports	Quarterly, Cumulative	Report reviews	NMCP/ NMS/SURE	-
50. Number of pregnant women receiving IPTp (2,3 or 4)	Number of pregnant women receiving IPTp (2,3) in past year **Unit of measure: Number**	By dose	HMIS	Quarterly	Monthly summary of HF registers	NMCP/ Partners PMI/	Calculation based on expected pregnancies
51. Number of uncomplicated malaria cases reported from Public sector (includes PNFP)		Age Sex Sector (public, PNFP, PFP or Community)					
52. Proportion of the annual need of ACTs procured	Numerator: Number of ACTs procured Denominator: Total annual need of ACTs **Unit of measure: Percentage**	Sector	Pharmacy division updates report	Biannual	Reports	Pharmacy/NMCP/partners	
53. Number of ACTs distributed to health facilities	Number of ACTs issued to health facilities	None	Stock and delivery report	Bi-monthly	Health Facility		
54. Proportion of VHTs without stock out of ACTs for more than 1 week in the last one month	**Numerator:** Number of VHTs without stock out of ACTs for more than 1 week in the last one month **Denominator:** Total number of VHTs						

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
55. Number of fever cases receiving subsidized branded ACTs through the private sector	Number of fever cases receiving subsidized branded ACTs through the private sector **Unit of measure: Number**	None	Activity reports/survey	Quarterly	Activity reports/survey	NMCP/partners	Dependent on continuation of AMFm after pilot phase
56. Number of targeted health facilities supervised in case management	*Number of targeted health facilities supervised in case management*	*None*	*NMCP activity reports / partner reports*	*Quarterly*	*Activity Report reviews*	*NMCP/partners*	*Includes bot public and private facilities*
57. Number of VHTs trained in home-based management of fever or ICCM	Number of heath workers trained in HBMF and/or ICCM **Unit of measure: Number**	None	NMCP activity reports / training reports	Quarterly	Activity Report reviews	NMCP/ partners	Targets all VHTs in the country and refresher training
58. Proportion of VHTs that received supervision in the last 3 months	**Numerator**: Number of VHT supervised in the last 3 months **Denominator:** Number of VHT working **Unit of measure: Number**	None	NMCP reports	Quarterly	Malaria focal persons Activity Report reviews	NMCP/ partners	
59. Proportion of VHTs without stock outs of ACTs for more than 1 week	**Numerator:** Number of VHTs without stock outs of ACTs for more than 1 week **Denominator:** Number of VHTs working **Unit of measure: Percentage**	None	VHT quarterly reports	Quarterly	Activity Report reviews	NMCP/ partners	
60. Number of RDT units distributed health facilities	Number of RDT units distributed health facilities Number	Sector (public, PNF and community)	Stock status Reports	Bi-monthly	Reports	Pharmacy Division	
61. Proportion of HF's conducting high quality microscopy/RDT tests	***Numerator:** Number of HF's with QA/QC above 80%* ***Denominator**: Number of HF's with QA/QC done* ***Unit of measure: percentage***	*Sector*	*Laboratory QA/QC Support supervision reports*		*Activity reports*	*CPHL/ NMCP reports*	*QA system exists and*
62. Proportion of primary schools with at least two teachers trained in malaria prevention and control	**Numerator:** Number of schools in the targeted districts with at least 2 teachers trained in malaria prevention and control	None	NMCP activity reports /	Quarterly	Review of Activity reports from Assistants	NMCP/ Partners	

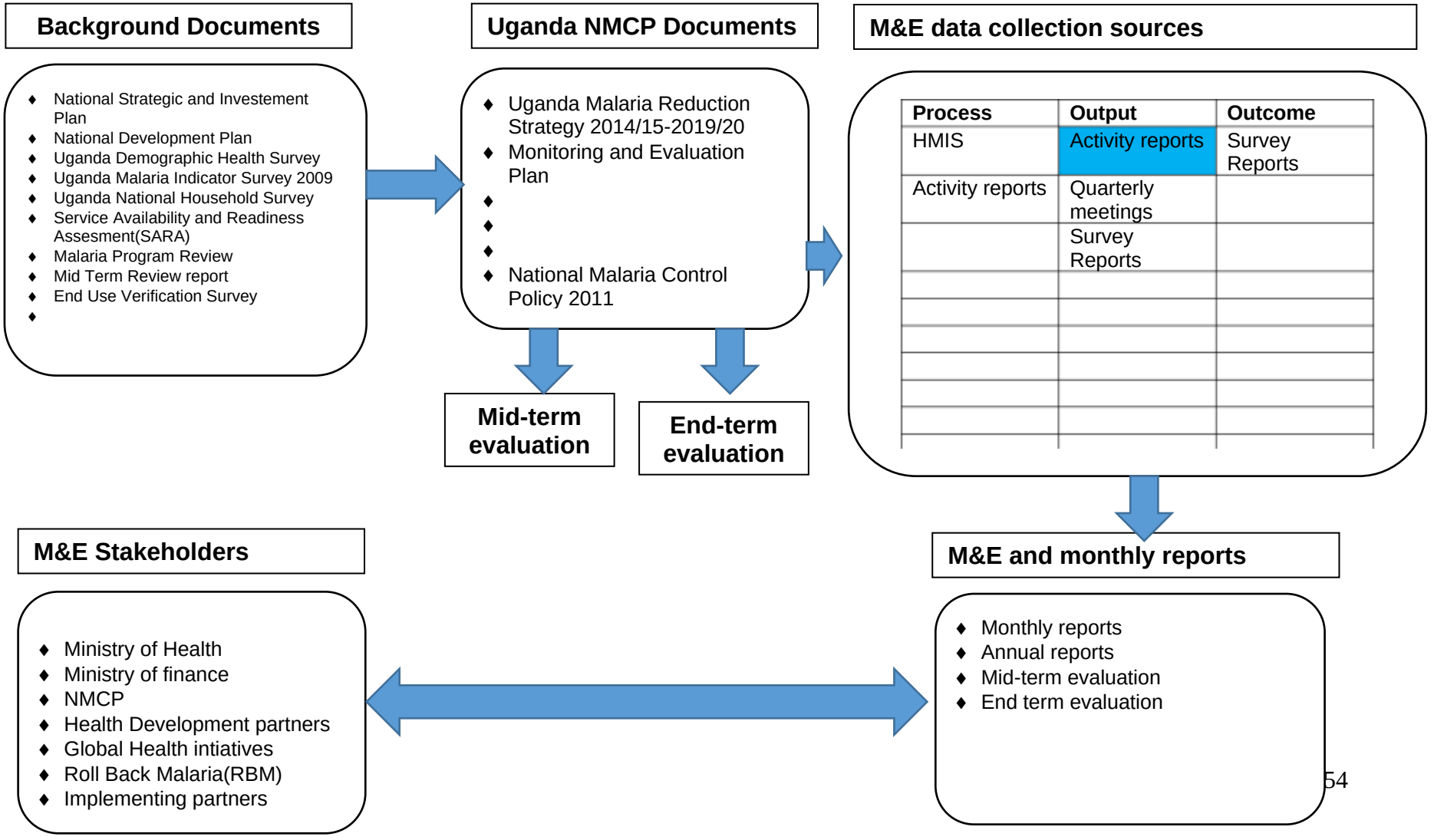
PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
	Denominator: Number of schools in the targeted district **Unit of measure: Percentage**		training reports				
63. Number of quarterly review meetings to monitor the planned activities	Number of quarterly review meeting to monitor the planned activities **Unit of measure: Number**	None	NMCP activity reports	Quarterly	Activity Report reviews	NMCP/Partner	Central level meetings involving zonal coordinators
64. Proportion of HMIS reporting units submitting timely reports according to national guidelines	**Numerartor:** Number of HMIS units submitting timely reports reports according to national guidelines Total Number of functional Units	Sector	HMIS reports	Monthly	Facility	Resource Center/NMCP	
65. Proportion of targeted health facilities supervised	Numerator: Total of targeted health facilities supervised Denominator: Total Number of targeted health facilities **Unit of measure: Number and Percentage**	Level (HC II, HC III, HC IV or hospital	NMCP supervision reports	Quarterly, cumulative	Activity Report reviews	NMCP/Partner	
66. Proportion of HFs supervised in the last six months	**Numerator:** Number of health facilities supervised by the DHT in the last 6 months from the date of the national supervision visit **Denominator:** Total number of health facilities in the District/Unit of measure **Unit of measure: Percentage**	None	NMCP supervision reports	Quarterly, cumulative	Activity Report reviews	NMCP/Partner	This will be part of the routine quarterly supervision.
67. Proportion of DHT supervised in the last six months	**Numerator:** Number of DHTs supervised by NMCP in the last 6 months from the date of the last national supervision visit **Denominator:** Total number of districts **Unit of measure: Percentage**	None	NMCP supervision reports	Bi annually	Activity Report reviews	NMCP/Partner	Dependant on functionalization of Zonal Offices.
68. Proportion of districts submitting quarterly malaria reports within the stipulated time frames	Numerator: Number of districts submitting quarterly malaria reports within the stipulated time frames Denominator: total number of districts expected to submit quarterly malaria reports within the stipulated time frames	Level Ownership	NMCP supervision reports	Bi annually	Activity Report reviews	NMCP/Partner	
69. Proportion of district submitting timely HMIS reports	**Numerator:** Number of district submitting timely reports **Denominator:** Total number ofdistricts **Unit of measure: Percentage**	None	HMIS Resource Centre	Quarterly, cumulative	Activity Report reviews	RC/ NMCP/Partner	This will be dependant on RC efforts
70. Proportion of partners submitting	**Numerator:** Number of partner submitted reports	None	NMCP/RBM	Quarterly	RBM minutes	RBM	Focuses on key partners. Will also

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
reports	**Denominator:** Total Number of partners **Unit of measure: Number**		partnership records			secretariat /NMCP	be presented as percentage when denominator is determined
71. Proportion of periodic reports submitted timely at the respective level	***Numerator**: Number of reports submitted on time* ***Denominator:** Number of periodically required reports* ***Unit of measure: percentage***	*National, International*	*NMCP records*	*Quarterly*	*NMCP Report records. Review meeting reports*	*NMCP/RBM/ GF*	*Dependant on strengthening M&E unit in NMCP*
72. Number of Quarterly malaria performance reports produced	Number ofquarterly malaria performance reports produced **Unit of measure: Number**	None	NMCP records	Quarterly	NMCP records	NMCP	This will be done quarterly
73. Number of weekly malaria surveillance reports produced	Number of weekly malaria surveillance reports produced **Unit of measure: Number**	None	NMCP records	Weekly	NMCP records	ESD/NMCP	This will be done quarterly
74. Proportion of budgeted funds received	**Numerator:** Funds received **Denominator:** Funds budgeted **Unit of measure: Percentage**	None	NMCP records	Quarterly	NMCP records	NMCP	Heavily dependent on GF grants
75. Proportion of received funds spent	**Numerator:** Funds spent **Denominator:** Funds received **Unit of measure: Percentage**	None	NMCP records	Quarterly	NMCP records	NMCP	
76. Proportion of epidemic prone districts with rapid response team trained in malaria EPR	**Numerator:** Number of districts with rapid response team trained in malaria EPR **Denominator:** Number of epidemic prone districts **Unit of measure: Percentage**	None	NMCP records/ training reports	Quarterly, cumulative, Annually	NMCP Report records. Review meeting reports	NMCP/WHO / IDSR/PMI	-
77. Proportion of epidemics detected on time	**Numerator**:Number of epidemics detected on time **Denominator**: Total number on epidemics **Unit of measure: Percentage**	*None*	*District reports*	*Annual*	*NMCP Report records*	*NMCP/WHO /IDSR/PMI*	
78. Proportion of epidemic prone districts with rapid response team trained in malaria EPR	**Numerator**:Number of epidemic prone districts with Rapid response teams trained in malaria EPR **Denominator**: Total number on epidemic prone districts **Unit of measure: Percentage**	*None*	*NMCP reports/ESD reports*	*Annual*	*NMCP Report records*	*NMCP/WHO /IDSR/PMI*	
79. Proportion of HF with up-to-date normal channels	**Numerator:** Number of HFs with up-to-date normal channels **Denominator:** Number of health facilities in epidemic prone districts	None	NMCP records	Quarterly, cumulative, Annually	NMCP Report records. Review meeting reports	NMCP/WHO / IDSR	

PERFORMANCE INDICATOR	STANDARD INDICATOR DEFINITION AND UNIT OF MEASUREMENT	Disaggregated by	Data Source	Frequency	Level of measurement	Responsible entity	Comments
	Unit of measure: Percentage						
80. Proportion of districts with EPR committees meeting at least once in a quarter	***Numerator:*** *Number of district with EPR committees meeting at least once in a quarter* ***Denominator:*** *Number of epidemic prone districts* ***Unit of measure: Percentage***	*None*	*NMCP Supervision reports*	*Quarterly*	*Activity Report reviews*	*NMCP/WHO / IDSR*	

Annexes

1.32 Annex 1: Malaria Monitoring and Evaluation Information Map



1.33 Annex 2: Dissemintation Plan

		2014				2015				2016				2017				2018					2019			2020	
	Product			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Quarterly supervisory reports																										
2	Quarterly Malaria Thematic Working Group reports																										
3	Annual Health Sector Reports reports																										
4	Quarterly malaria bulletin																										
6	Publication of at least 2 papers in international journals																										
7	World Malaria Report data																										
8	RBM Dash Board																										
9	Survey Reports																										
10	Malaria Impact Evaluation Report																										
11	IRS Report																										