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GOVERNMENT OPF SIERRA LEONE
MINISTRY OF HEALTH AND SANITATION

NATIONAL MALARIA CONTROL MONITORING AND EVALUATION PLAN

2011 - 2015

DECEMBER 2011

Abbreviations

ACT	Artemisinin-based Combination Therapy
ADR	Adverse Drug Reaction
ANC	Ante-Natal Clinic
APR	Annual Program Report
BRAC	Bangladesh Relief Activity Cooperation
CBO	Community Based Organization
CBP	Community Based providers
CCMm	Community Case Management Malaria
CDC	Centre for Disease Control
CMS	Central Medical Store
CRS	Catholic Relief Services
DHIS	District Health Information System
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DMO	District Medical Officer
DPC	Disease Prevention and Control
DPPI	Directorate of Policy and Planning
DSS	Demographic Surveillance System
EPI	Expanded Program on Immunization
F-ANC	Focus – Ante-Natal Care
GF	Global Fund
GFATM	Global Fund for AIDs , Tuberculosis and Malaria
HIS	Health Information System
HMIS	Health Management Information System
HMM	Home Management of Malaria
HMN	Health Metric Network
HR	Human Resource
ID	Identification number
IDSR	Integrated Disease Surveillance and Response
IEC	Information Education and Communication
IMNCI	Integrated Management of Newborn and Childhood Illness
IPTp	Intermittent Preventive Treatment in pregnancy
IRC	International Rescue Committee
IRS	Indoor Residual Spraying
IT	Information Technology
IVM	Integrated Vector Management
KAP	Knowledge Attitude and Practice
LFA	Local Funding Agency
LLINs	Long Lasting Insecticide treated Nets
LMIS	Logistic Management Information system

M&E	Monitoring and Evaluation
MAL-P	Malaria indicator Prevention
MAL-T	Malaria indicator Treatment
MDG	Millennium Development Goal
MERG	Monitoring and Evaluation Reference Group
MESST	Monitoring and Evaluation System Strengthening Tool
MICS	Multi-Indicator Cluster Survey
MIP	Malaria In Pregnancy
MIS	Malaria Indicator Survey
MoHS	Ministry of Health and Sanitation
MRC	Medical Research Council
MSF	Medicine San Frontier
MTWG	Malaria Technical Working Group
NGO	Non Governmental Organization
NMCP	National Malaria Control Program
NMSP	National Malaria Strategic Plan
PBSL	Pharmacy Board of Sierra Leone
PHU	Peripheral Health Unit
PMV	Patent Medicine Vendors
PSM	Procurement Supply Management
RBM	Roll Back Malaria
RDQA	Routine Data Quality Assessment
RDT	Rapid Diagnostic Test
RR&IV	Report Request and Issue Voucher
SLRC	Sierra Leone Red Cross
SOP	Standard Operating Procedure
SP	Sulfadoxine –pyrimethamine
SR	Sub- Recipient
SSL	Statistic Sierra Leone
TA	Technical Assistant
TBA	Traditional Birth Attendant
TOT	Training Of Trainer
U5	Under Five
UMC	United Methodist Church
UNICEF	United Nations Children fund
WANMAT	Western Africa Network for Monitoring Antimalarial Treatment
WARN	West African Regional Network
WHO	World Health Organization

Executive Summary

This National Malaria Control Strategic Plan was developed in the year 2011 following the finalization of the National Malaria Strategic plan for the period 2011-2015. This new strategic plan takes into consideration the Abuja Targets set for 2010 and the Millennium Development Goals set for 2015, which is in line with the Ministry of Health and Sanitation's Goals and Objectives for the prevention and control of Malaria in Sierra Leone.

In October 2011, a review of the malaria Monitoring band Evaluation (M&E) system was conducted using the M&E System Strengthening Tools (MESST 2006 version). The recommendations of the review exercise to strengthen this system are included in the M&E activity plan of this document.

This M&E plan is a framework for monitoring and evaluating the level of implementation of the malaria strategic plan for the period 2011 – 2015. The specific M&E actions to be undertaken will generate information that will enable the National Malaria Control Programme (NMCP) to monitor the performance of the programme. In particular this information will create knowledge for improving health care especially for malaria cases. The M&E plan comprises of three (3) sections. Firstly, there is an introduction that provides background information that allows the reader to understand the context of malaria control in the country. The second section describes the goals of for the national Health M&E plan including key definitions of malaria monitoring and evaluation, the M&E framework, the indicators, data collection methods and data quality checks among other things. The third section describes how the M&E plan will be implemented, M&E budgeted activities that will ensure that the necessary data are collected, analyzed and disseminated to relevant stakeholders.

Impact-oriented monitoring and evaluation is most effective when stakeholders are involved in a creative process of learning how to improve the health systems on a continual basis. Therefore this M&E Plan was developed with the participation of Roll Back Malaria (RBM) stakeholders and reviewed by the national M&E technical working committee.

Acknowledgements

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1.0 Malaria situation and epidemiology:

Malaria continues to be a major global health problem, with over 40% of the world's population at risk. More than 2.4 million people are exposed to varying degrees of malaria risk in some 100 countries. Over one million people die annually from malaria and 70% of these deaths are among children under five years. Unfortunately, 90% of these live in Sub-Saharan Africa.

In Sierra Leone, malaria is endemic all year round with seasonal variations at the start and end of the rainy season. It is presently the leading cause of morbidity and mortality amongst children under five years of age. It is the first on the list of Government priority diseases. The entire populace is at risk of developing the disease accounting for over 40.3% of outpatient morbidity, but the most vulnerable groups are under-five year old (U5) children and pregnant women. Malaria is a major threat to socio-economic development of the country with an estimated 7-12 days lost on the average per episode of malaria.

The recent Malaria Indicator Survey (MIS March, 2010) reveals that, 50.4% of children under five years of age receive prompt and appropriate treatment of malaria according to national policy. Access to treatment by children under five years at health facilities and communities is 57.0% and 28.7% respectively. The percentage of those children with fever that sought treatment and received an ACT in the previous 2 weeks is 42.3% (CDC population based survey 2007).

The baseline survey conducted in 2005 revealed that the Intermittent Preventive Treatment in pregnancy (IPTp) usage rate was low, about one in five mothers (22%) had it in the last pregnancy and about 19% took at least 2 doses. The percentage of pregnant women receiving IPTp at Antenatal Care (ANC) clinics is 42% (Routine Data 2007) and 11% (DHS, 2008) respectively. The proportion of pregnant receiving at least two doses of IPTp increased to 72.3% in 2010 from the routine HMIS data.

According to survey conducted in 2005 the ownership of LLINs was 2% (MICS, 2005) and increased to 37% in 2008 (DHS, 2008). Considering the scope of malaria problem in Sierra Leone and the commitment to achieve universal coverage of LLINs by the end of 2010, a mass distribution of LLINs was conducted in 2010. Through a network of Global Fund (GF) partners and Community-Based Organisations (CBO), Faith-Based Organisations (FBO) and Roll Back Malaria (RBM) partners, over 3.2 million LLINs were distributed throughout the country. This ensured at least one net per two persons, satisfying the definition of universal coverage by the World Health Organisation (WHO). Currently the ownership of LLINs is 86.6% (post campaign ownership and utilization survey, 2011).The percentage of children under five that slept under LLINs the previous night before the survey increased from 5% (MICS, 2005) to 26% (DHS,2008) and further increased to 73% (post campaign ownership and utilization survey, 201). The percentage of pregnant women that slept under LLINs the night before the survey increased from 10% (MICS, 2005) to 27% (DHS, 2008) and then to 77% (post campaign ownership and utilization survey, 2011).

1.1 *Goals, Objectives, Target and Interventions of the National Malaria Strategic Plan*

The vision of the programme is **'access to malaria control for all'**

1.1.1 Goal:

The Malaria control programme in Sierra Leone aims to improve the health of its people, and thereby their quality of life, by reducing the malaria burden in the country. This goal will be achieved through scaling up access to evidence based malaria control interventions to the entire population.

1.1.2 Objectives and targets:

The general objective is to reduce the current levels of malaria morbidity by 50% and to reduce mortality by 25% by 2015.

The aim of the National Malaria Control Programme is to:

- Promote, co-ordinate and support the delivery of effective malaria control interventions that will prevent and reduce morbidity, mortality and disability due to malaria and its socio-economic consequences;

- Use new technologies available to produce results and implement improved diagnosis and ensure rapid and prompt treatment for malaria and establish selective malaria vector control activities;
- Develop decentralized multi-sectorial harmonious partnerships in malaria control activities in Sierra Leone from national down to community level.

The specific objectives and targets are as follows:

1. To increase prompt and effective treatment of malaria from 50% in 2010 to 80% for all age groups by 2015**.**

2. To reduce the proportion of severe malaria cases by 50% by 2015.

3. To increase access to the uptake of at least two doses of Intermittent Preventive Treatment (IPTp) among pregnant women at health facility and community levels from 72.3% to 90% by 2015.

4. To increase the percentage of people having access to at least one prevention method such as LLINs, Indoor Residual Spraying (IRS) and or other methods from 25.9% to 80% by end of 2015.

5. Increase the utilization of at least one prevention method, Long Lasting Insecticide Treated Nets (LLINs), IRS and/or other appropriate methods among the entire population to 80% by 2015.

6. To increase the knowledge, attitude and skills of the general population towards the use of preventive and control measures against malaria from the current levels to 80% by 2015.

7. To strengthen management and implementation capacity of the National Malaria Control Programme through effective coordination of partners.

8. To strengthen surveillance, monitoring, evaluation and operational research for effective programme management.

1.1.3: Key intervention strategies and activities in the National Malaria Strategic Plan:

1.1.3.1: Effective Case Management

Diagnosis - The objective is to scale up confirmatory diagnosis of malaria in all patients from 25.8% to 80% by 2015.

Strategies:

- Provide malaria microscopy to all tertiary health facilities (hospitals) and Community Health Centres.
- Introduce Rapid Diagnostic Tests (RDTs) to health facilities without microscopy.
- Strengthen the human resource through in-service training of laboratory technicians and clinicians in the use of RDTs and microscopy.
- Institute periodic quality assurance of RDTs.
- Provide appropriate laboratory supplies for microscopy together with guidelines and logistics.

Treatment of Uncomplicated malaria – The objective is to increase prompt and effective treatment of malaria from 50% in 2010 to 80% for all age groups by 2015**.**

Strategies:

- Provide appropriate and effective ACTs both at community and health facility levels on regular basis.
- Provide treatment guidelines and training manuals for health workers.
- Train and re-train health workers at all levels on malaria case management.
- Establish a system of quality assurance and pharmacovigilance.
- Strengthen malaria component of IMNCI.
- Incorporate malaria component of IMNCI.
- Support strengthening of referral systems.

Management of Severe Malaria – The objective is to reduce the proportion of Severe malaria cases by 50% by 2015.

Strategies:

- Provide training for health workers on the recognition of signs and symptoms and management of severe malaria.
- Ensure that there exists a workable and effective referral system.
- Identify emergencies and refer immediately to the next level of care.
- Provide pre-referral Artesunate suppositories to children under fives years.
- Feedback system in place.

Community Case Management of Malaria (CCMm) – The objective is to Increase access to prompt and appropriate/effective treatment of confirmed uncomplicated malaria cases at community level by 2015 from 0% to 50% among patients under

fives and from 32.2% to 80% in patients over five years.

Strategies:

- Train health workers to deliver effectively management of malaria cases.
- Educate the community on the availability, benefits and rational use of community case management of malaria.
- Provide supportive logistics to Community Based Providers (CBP) and Patent Medicine Vendors (PMV).
- Strengthen the referral system.
- Monitor side effects of ACTs used by CBPs and PMVs.
- Identify and train CBPs and PMVs to improve practices for treatment with ACTs and referral of severe cases.
- Supply medicines and diagnostics to CBPs.
- Implement a supportive communication strategy.
- Institute regular supervision and monitoring of CBPs and PMVs.

1.1.3.2: Multiple Prevention Methods (including Intermittent Preventive Treatment).

Prevention during pregnancy – The objective is to increase access to the uptake of at least two doses of Intermittent Preventive Treatment (IPTp) among pregnant women at health facility and community levels from 72.3% to 90% by 2015.

Strategies:

- Increase access to IPT through Focused Antenatal Care (FANC).
- Improve community participation in the delivery of ANC.
- Improve supportive logistics to facilitate IPTp.
- Address pharmacovigilance issues.

Integrated Vector Management (IVM) including LLINs and IRS & Environmental Management – The objectives are:

To increase the percentage of people using at least one prevention method such as LLINs, IRS and or other methods, particularly children under five years and pregnant women, from 25.9% to 100% by end of 2015.

To increase the utilization of at least one prevention method, Long Lasting Insecticide Treated Nets (LLINs), IRS and/or other appropriate methods among the entire population, especially vulnerable groups such as children less than five years and pregnant women to 80% by 2015.

Strategies for LLINS:

- Organise the integrated mass campaign of distribution of LLINs,
- Scale up the use of LLIN to achieve universal coverage,
- Organize partnership and coordination meetings at all levels,
- Sustain the routine distribution through Expanded Program of Immunisation (EPI) and ANC.
- Promote and facilitate the regular and correct use of LLINs in order to translate rising ownership rates into high use rates.
- Hang up, keep up and follow-up approach.
- Engage the private sector and local communities as partners in planning and implementation

Strategies for IRS:

- To start IRS in few targeted pilot districts.
- IRS will be deployed in phases, initially on limited scale and based on experiences made by countries in the sub region with the same climate;
- Recognizing that IRS is a costly intervention, resources will be mobilized from both national and international sources, including engagement of the private sector, international agencies, and development partners.

Environmental Modification Activities:

- Advocate for provision of drains and proper channels to improve water flow
- Advocate for enforcement of environmental legislation.
- Advocate for proper planning of new settlements
- Use larvivorous fishes in fish ponds e.g. Tilapia, Goldfish, etc.
- Educate the general populace on proper use of the environment

Environmental Manipulation Activities:

- Advocate for appropriate environmental manipulation measures.
- Intensify Information Education and Communication (IEC) on the impact of human

behaviour on mosquito breeding and malaria transmission.

- Empower communities to carry out activities to minimize malaria vector breeding sites.
- Sensitize key stakeholders, politicians, community leaders, etc. on malaria prevention and control interventions.

1.1.3.3 Empowering Individuals & Communities:

Information, Education and Communication (IEC) for Behaviour Change – The objective Is to increase the percentage of people having access to at least one prevention method such as LLINs, IRS and or other methods from 25.9% to 80% by end of 2015.

Strategies:

- Mass Media
- Advocacy to Districts and Local Government Authorities and community leaders
- Prevention campaigns and dissemination: hang up, keep up and follow-up.

1.1.3.4 Operational Research

Research – The objective is to strengthen national capacity for developing evidence-based programming.

Strategies:

- Develop a malaria specific research agenda.
- Develop a funding stream and contracting mechanism for programme responsive research
- Timely dissemination of research findings to stakeholders and integration of information in programming.
- Conduct Drug Efficacy Studies every two years.
- Conduct adherence studies every year.
- Entomological studies
- Insecticide susceptibility tests.
- A Knowledge, Attitude and Practice study (KAP).
- Sentinel sites surveillance.
- Malaria Indicator Survey (MIS)

- Pharmacovigilance of antimalarials
- Post market surveillance of malaria medicines

1.1.3.5 Surveillance, Monitoring and Evaluation

The objective is to strengthen surveillance, monitoring, evaluation and operational research for effective programme management.

Strategies:

- Provide accountability for implementation according to programme plan.
- Improve programme implementation.
- Trigger rapid adaptation of programme response, particularly in crises or unstable contexts.
- Feed into evaluation and reprogramming.
- Provide information for advocacy for changing policies or strategies.

1.1.3.6 Programme Management and Implementation (PMI)

The objective is to strengthen management and implementation capacity of the National Malaria Control Programme through effective coordination of partners.

Strategies:

- Meetings and communication interaction among stakeholders.
- Strengthening the malaria programme at the district and provincial levels
- Strengthening resource mobilization capacity to improve malaria control financing
- Strengthening procurement and supply management systems for malaria medicines and commodities.

1.1.3.7 Support systems

Effective Programme Management

The National Malaria Control Programme structure and human resources:

Malaria Control Programme is a unit in the Directorate of Disease Prevention and Control of the Ministry of Health and Sanitation (MoHS) and is a major component of the revised National Health Plan. The NMCP is headed by a Manager supported by a Programme Administrator and ten technical staff, one Finance Officer, twelve support staff and two Secretaries.

The mandate is to plan, facilitate the implementation, coordination, supervision, and monitoring of malaria control activities in an integrated disease control approach. MoHS has a specific budget line item for Malaria that supports the implementation and monitoring of various control interventions such as LLINs, Prompt and appropriate management of cases. To promote partnership, there is a broad based RBM Task Force Committee at the national level while there is District Health Management Team at the sub-national levels.

Human Resource Development & Management

There is a general shortage of trained manpower at all levels of the health system. In a bid to improve the situation, the Sierra Leone government has embarked on a programme of expanding the current training institutions to produce more qualified trained health staff and is also re-employing staff who have retired from the public service. Government has also created improved salary and incentive schemes.

Strategies:

- Ensure that there is a well established planning and forecasting framework for projecting human capacity needs and related costs across all cadres and levels of the health system.
- Provide planning support to districts to manage temporary staffing pools for rapid scale up of malaria control efforts.
- Invest in health workforce training capacity for improved development of supply of health care providers as well as to professional progress members of the health workforce.

Financing and Resource Mobilization:

The scaling up of malaria programmes intended to reduce the burden of malaria in the country, brings with it, issues of developing and institutionalising the capacities not just for malaria programme, but the health system as a whole, on the methodological, analytical and practical issues relating to the economics and financing of malaria and other health programming. The cost of malaria programme is a function of the targets, level and extent of the interventions. The interventions are themselves a function of the technology and the cost of the technology, especially in relation to effective case management, whereby the medicines and

diagnostics may involve considerable costs. Furthermore the mere strategy of scaling up itself, requires more resources and better management of those resources.

The NMCP financial management system will be synchronised with that of the MoHS. All levels of the health system have financial planning and management plans inclusive of malaria prevention and control related requirements. A financial forecasting and costing framework will be in place that provides timely data for planning and budgeting purposes given programme priorities.

Procurement and Supply Chain Management (PSM):

Rapid national scale up of malaria prevention and control efforts will result in additional stress on the national procurement processes and capacity. The three year rapid scale up phase must be supported by procurement capacity that exceeds current government capacity. Advertisement for Procurement agents will be placed and successful agent hired. Commodities will be purchased in a cost-efficient manner, abiding by WHO guidelines and specifications.

The focus on prevention interventions will result in large shipments of non-drug commodities that will require transport, storage and inventory management at all levels of the health system. The ability to efficiently deliver commodities to community delivery points is crucial to effective programme implementation. NMCP will work to identify supply chain management constraints in concert with the hired consultants and develop solutions to constraints in the current system.

Reporting:

Following data collection, entry and analysis, the information derived from the data are interpreted and summarized into quarterly and annual reports which the NMCP shares with RBM partners. The NMCP shares the reports with RBM stakeholders during the quarterly RBM stakeholders' meetings and yearly ministry of health review meetings. The reports are also used to give feedback to the NMCP, District health management Teams (DHMT) and or Malaria Focal Persons and health workers on their performance with regard to malaria activities. Often this report/feedback is given by way of on-the-job training during supervision visits to the health facilities and/or communities with the desired outcome to improve service provision and utilization.

Global Fund specific technical reports are submitted to the Global Fund for Aids, Tuberculosis and Malaria (GFATM) Principle Recipient(s) (PR) who then share it with the Country Coordinating Mechanism (CCM) for their information and action. Other avenues for report sharing are annual sub regional meetings of the West Africa Regional Network (WARN). Reports from evaluation and research activities such as treatment efficacy studies and pharmacovigilance will be published in relevant peer review journals.

Financial reporting: Ministry of Health and Sanitation receive funding from Government of Sierra Leone through the Ministry of Finance in accordance with financial regulations and budgeting allocations made to the MoHS. Expenditure of funds disbursed to the NMCP are reported to the MoHS which is in turn reports to the Ministry of Finance. Funds from other donor sources are reported to MoHS and expenditure of all such funds are controlled in accordance with letters of agreement signed with MoHS and the respective donor agencies. Expenditure of all funds are checked by an internal auditor system as well as professional auditing firms.

Programme Planning and Design:

Invest in evidence-based programme planning capacity at all levels of the health system.

Outputs:

- Strategic, implementation, business and annual work plans will be developed based on sound scientific and operations data.
- All levels of the health system have access to programme performance data and rationale for best practices from which to make sound programme implementation decisions.

1.1.3.8 Coordination and Effective Partnerships

Partnership Strengthening and Programme Management Support: The overall goal of this intervention is to improve performance of the NMCP. The private and informal sectors will be encouraged among other partners to play increasing roles in RBM.

Malaria Technical Working Group (MTWG): This will meet at least quarterly

RBM Coordination Committee: At the national level this committee will meet at least twice a year (mid-year and end of year)

1.2 Recent Development In The Health Sector

The National Malaria Control Programme is under the Directorate of Disease Prevention and Control (DPC) of the Ministry of Health and Sanitation (MoHS). The programme is well integrated at all levels of the health care delivery system.

The Directorate for Planning, Policy and Information (DPPI) at the MoHS is responsible for capturing health information countrywide. There has been considerable progress made with M&E investments within the MoHS in the past few years. Since 2007, one important milestone has been the successful collaboration with Health Metrics Network (HMN) on the introduction and rolling out of the District Health Information System (DHIS). This information system has enhanced the ministry's capability to generate and harness health information for use for health planning, implementation and monitoring.

The MoHS/DPPI now collates district data through an electronic District Health Management Information System (DHIS). This new HMIS captures all relevant disease indicators including those related to malaria. Other relevant malaria indicators are captured in the IDSR, MIS and other appropriate methods such as supervisory visits.

Current efforts are expended to ensure information on a primary set of selected input, process and output indicators are made available. Mechanisms are being put in place to improve data collection and flow mechanisms to ensure quality, valid, and accurate data.

This National Malaria Control M&E Plan is in line with the National Health Sector M&E plan. It describes the context of M&E, defines the indicators and data collection methods as well as provides a fully costed M&E plan activity.

It is envisaged that the implementation of this document will guide the direction of malaria control activities in the country which will lead to the attainment of the goals and objectives as spelt out in the national malaria strategic plan and the Millennium Development Goals (MDG 4,5,&6).

SECTION II – REVIEW OF THE EXISTING M&E SYSTEMS

2.0 Situation analysis

Monitoring and evaluation in the health sector is characterized by a multiplicity of frameworks fostered under multilateral and bilateral donors, United Nations agencies and Non-Governmental Organizations (NGOs). The health sector is making efforts to create a unified M&E system, through the use of integrated data collection tools, establishment of a District Health Information System in all districts, producing quarterly bulletins and sharing data with stakeholders.

Despite the efforts to strengthen the M&E system in the sector, it is still weak. Contributing factors include the limited skills and motivation of M&E staff at national and district levels; frequent malfunctioning of computers due to viruses and problems with electricity supply; fragmentation of M&E system at national level with multiple programme staff setting up parallel systems to collect programme specific data; existence of many tools for data collection by different stakeholders; and lack of coordination of M&E systems across programmes at national level, districts and communities to name a few.

Recently, a review of the malaria M&E system was conducted using the M&E System Strengthening Tools (MESST 2006 version). The recommendations of the review exercise to strengthen this system are included in the M&E activity plan of this document. (See appendix 9 for details)

Thorough monitoring and evaluation (M&E) with capacity to capture, manage, and report quality, actionable data in a timely manner are key to ensuring progress. Mechanisms are being put in place to improve data collection and flow mechanisms to ensure quality, valid, and accurate data

2.1 Goals and Objectives of The National Malaria Monitoring and Evaluation Plan

2.1.1 Goal of the National Malaria M&E Plan

The National Malaria M&E plan aims to contribute in strengthening the performance of the health care services at all levels of administration through the provision of necessary and sufficient information needed by policy planners and decision makers, the NMCP and other RBM stakeholders to plan, monitor and evaluate their activities.

2.1.2 Objectives of the National Malaria M&E Plan

The general objective is to monitor the implementation and provide information for the evaluation of the national malaria strategic plan (2011 – 2015) by objective, strategy and activity.

Specific objectives:

1. To systematically monitor the implementation of malaria prevention and control interventions in the country
2. To strengthen the capacity of the NMCP and other RBM M&E staff for data collection, management and analysis as well as for dissemination and use at district and national levels.
3. To improve on the use of malaria data by all stakeholders in the health sector for planning and decision-making including policy development and corrective action.
4. To evaluate the outcomes and impact of malaria prevention and control implementation in the country.
5. To contribute in establishing a well-integrated M&E system in the health sector.

2.2 Framework for monitoring and evaluation of the National Malaria Strategy plan

Monitoring is the *routine tracking* of the key elements of programme performance through record keeping, regular reporting, surveillance systems and periodic surveys. At the national and sub national levels of implementation, monitoring of inputs (human resources, financing supplies), processes (procurements and training) and outputs (services delivered) is essential for assessing program performance. Programme monitoring, therefore, assesses the extent to which the implementation

of planned activities is consistent with the project or programme design and will contribute greatly to evaluation.

Evaluation is the *periodic assessment* of the change in targeted results that can be attributed to an intervention. It attempts to link a particular outcome or impact directly to a particular intervention after a period of time. It helps determine the value or worth of a particular programme. Evaluation is mostly done through surveys and surveillance to determine outcomes and impact. One may also use specialised techniques to systematically investigate a programme's effectiveness and the extent to which the invested resources have yielded the expected results.

The indicators used are classified as input, process, output, outcome and impact.

Input indicators are the resources needed to implement the system.

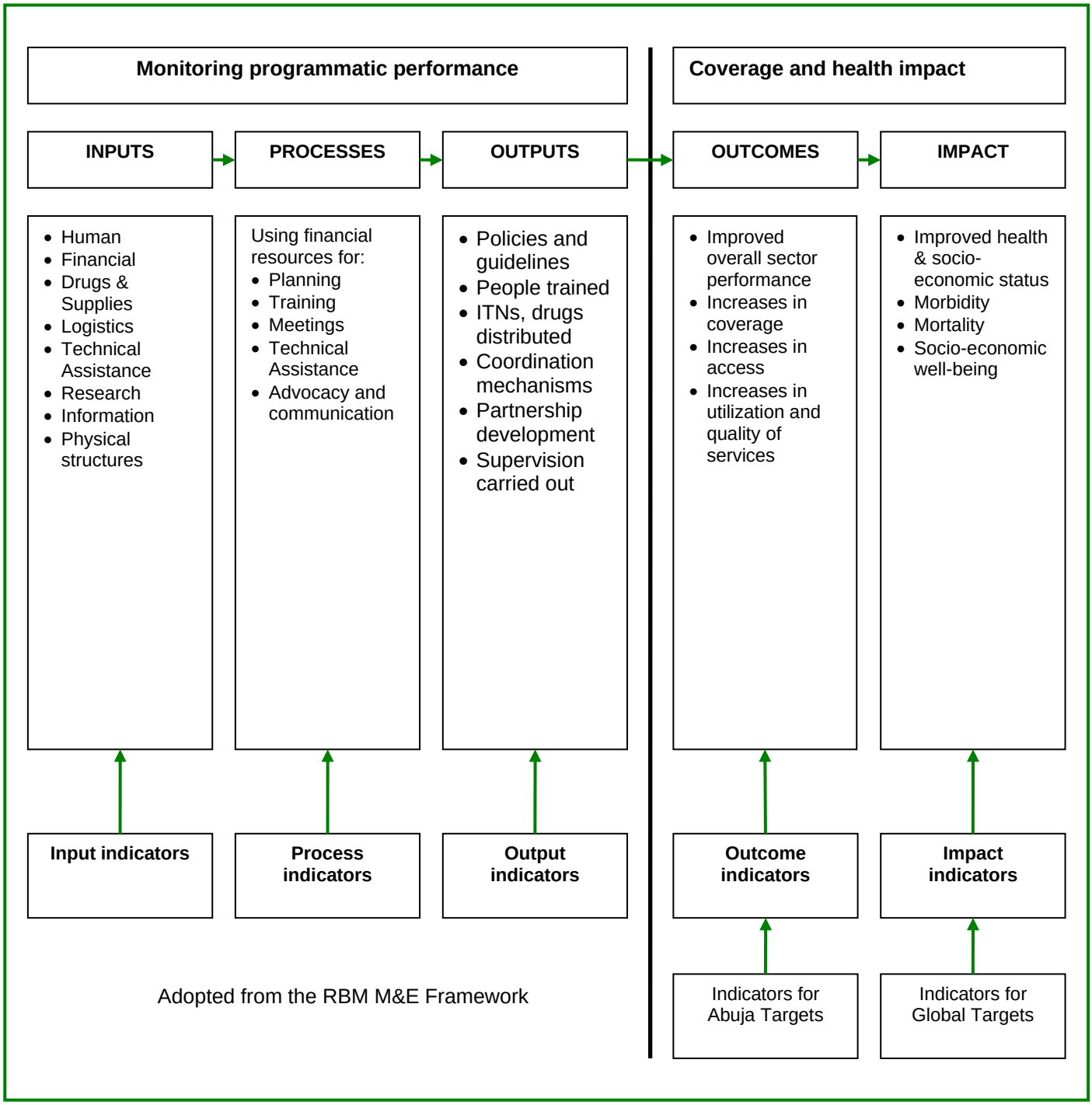
Process indicators are used to monitor and track implementation of the planned activities which are critical for attaining the desired outputs.

Output indicators are measures of the immediate results of activities.

Outcome indicators are measures of the quality of the programme (interventions being implemented) and the extent to which the set objectives are achieved.

Impact indicators are measures of the extent to which the overall objectives of the system are being achieved.

Figure 1: The basic malaria M&E framework with the proposed inputs, outputs, processes, outcomes and impact measures:



Source: *Sierra Leone Malaria Strategic Plan 2010-2015*

NATIONAL MALARIA CONTROL PROGRAMME
PERFORMANCE FRAMEWORK FOR THE MALARIA STRATEGIC PLAN

GOAL: Scaling-up access to evidence based malaria control interventions to the entire population.

General Objective: To reduce the current levels of malaria morbidity by 50% and to reduce mortality by 25% by 2015

Table 1: Performance Framework For The Malaria Strategic Plan

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Impact Indicators								
All cause under five mortality rate	The number of deaths of children under 5 years of age per 1000	**Numerator:** Number of deaths of children under five years of age in a specific period **Denominator**: Total number of under five in a specific period.	DHS, MICS	Population Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 4- 5 years
Parasite prevalence: children aged 6-59 months with malaria infection (detection of parasitaemia by microscopy) (percentage) (MAL-I3)	The number of children aged 6-59 months with positive RDT / Blood slides per 100 children tested.	**Numerator:** Number of children aged 6-59 months with malaria infection detected by microscopy and /or RDT **Denominator**: Total number of children aged 6-59 months tested for malaria parasites by microscopy and /or RDT.	DHS, MIS	Population Based Survey	Laboratory/microscopy	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 4-5 years
Percentage of slides or rapid diagnostic tests found positive among all slides and Rapid Diagnostic Tests (RDTs) [MAL-I6]	The proportion of test (microscopy and/or RDT) that are positive for malaria among the suspected cases tested for malaria .	**Numerator**: Number of laboratory-confirmed malaria cases **Denominator**: Number of suspected malaria cases with a parasitological test.	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Outcome Indicators								
Percentage of children under 5 with confirmed malaria in the last two weeks who received ACT within 24 hours of onset of fever [MAL-T7] at the facility level	Number of children under 5 years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever divided by number of children with fever who visited health facility x 100	**Numerator:** Number of children under five years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever **Denominator:** Total number of children under five years children with fever who visited health facility	MIS	Health Facility Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-3 years
Percentage of children under 5 with confirmed malaria in the last two weeks who received ACT within 24 hours of onset of fever [MAL-T7] at the community level	Number of children under 5 years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever divided by number of children with fever at community level x 100.	**Numerator:** Number of children under five years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever **Denominator:** Total number of children under five years children with fever at community level.	MIS	Population Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-3 years
Percentage of children U5 who slept under a Long Lasting Insecticidal Net (LLIN) the previous night (MAL-P5)	Number of children under five years old who slept under an LLIN the previous night divided by the total number of children under five in the households surveyed X 100	**Numerator:** Number of children under five years old who slept under an LLIN the previous night **Denominator:** Number of children under five years in surveyed households	MIS, MICS, DHS	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-5 years

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Percentage of pregnant women who slept under a Long Lasting Insecticidal Net (LLIN) the previous night (MAL-P9)	Number of pregnant women who slept under LLIN the previous night divided by the total number of women interviewed X 100	Numerator: Number of pregnant women who slept under LLIN the previous night Denominator: Total number of pregnant women surveyed	MIS, MICS, DHS	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-5 years
% of households with at least one LLIN ((SLMC-SP - 2010))	Number of households having at least one LLIN divided by total number of households visited x 100	**Numerator:** Number of households with at least one LLIN **Denominator:** Total number of households surveyed	MIS, MICS, DHS	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-5 years
Percentage of households with at least two LLINs (GF)	Number of households having at least two LLINs divided by total number of households visited x 100	**Numerator:** Number of households with at least two LLIN **Denominator**: Total number of households surveyed	MIS, MICS, DHS	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-5 years
Percentage of women who received two or more doses of Intermittent preventive treatment (IPTp) for malaria during their last pregnancy (in last 2 years) [MAL-P10]	Number of women who have taken intermittent preventive treatment, according to national drug policy divided by total number of pregnant women interviewed/whose ANCS has been reveiwed x 100	**Numerator:** Number of women who have received two or more doses of IPTp for malaria during their last pregnancy **Denominator:** Total number of pregnant women surveyed	MIS, MICS, DHS	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-5 years

Key Interventions

A- Case Management

Objective 1. To scale up confirmatory diagnosis of malaria in all patients from 25.8% to 80% by 2015.

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Percentage of Health facilities providing diagnosis either through RDTS or Microscopy	Percentage of Health facilities that are providing diagnosis either through RDTS or Microscopy out of the targeted health facilities.	**Numerator:** Number of Health facilities providing diagnosis either through RDTS or Micros copy **Denominator:** Number of targeted health facilities providing diagnosis either through RDTS or Micros copy	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Percentage of suspected malaria cases confirmed by laboratory testing (RDT or microscopy).	Percentage of suspected malaria cases confirmed by laboratory testing (RDT or microscopy) out of the total cases tested.).	**Numerator:** Number of suspected malaria cases confirmed by laboratory testing (RDT or microscopy **Denominator:** Total number of suspected malaria cases tested with RDTS or Micros copy	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Number and percentage of suspected cases of malaria tested using RDT at the community level (starting from 2013)	Number of suspected cases of malaria tested using RDT out of the total number targeted at the community level ..	**Numerator:** Number of suspected cases of malaria tested using RDT at the community level **Denominator:** Total number of suspected cases of malaria tested using RDT at the community level	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Percentage of health staff trained in microscopy and/ or rapid diagnostic tests	Percentage of health staff trained in microscopy and/ or rapid diagnostic tests out of the total targeted health	**Numerator:** Number of health staff trained in microscopy and/ or rapid diagnostic tests **Denominator**: Total number of targeted health	Training report	Routine	Training Records	Tabulation	NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
	staff in the targeted health facilities	staff to be trained in malaria microscopy and/ or use of rapid diagnostic tests						
Percentage of Community Based Providers trained on RDTs	Percentage of community Based Providers (CBPs) trained to use rapid diagnostic tests out of the total number of CBPs targeted in the targeted communities	**Numerator:** Number of community Based Providers trained on the use of rapid diagnostic tests **Denominator:** Total number of community Based Providers to be trained in targeted community on the use of RDTs	Training report	Routine	Training Records	Tabulation	NMCP	Every 3 months (Quarterly)
Percentage of RDTs used at Health Facilities	Percentage of patients tested with RDTs(Under five, Adolescent and Adult) at health facilities	**Numerator:** Total number of suspected cases with positive and negative RDT results **Denominator:** Total number suspected cases tested with RDTs	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Objective 2: To increase prompt and effective treatment of malaria from 50% in 2010 to 80% for all age groups by 2015.								
Percentage of children under 5 years with confirmed diagnosis out of those who receive ACT according to National Guidelines in health facility	Percentage of children under 5 years with confirmed diagnosis and - received ACT according to National Guidelines in health facility	**Numerator:** Number of children under five years with confirmed malaria who received ACT in health facility **Denominator:** Total number of children under five years that received ACT in health facility	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Percentage of people over 5 years with confirmed diagnosis out of those who receive ACT according to National Guidelines in health facility	Percentage people over 5 years with confirmed malaria and received ACT according to National Guidelines in health facility ty	**Numerator:** Number of people over 5 years with confirmed malaria who received ACT according to National Guidelines in health facility **Denominator:** Total number people over 5 years who received ACT in health facility	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Number of children under 5 years with fever who receive appropriate antimalarial treatment (ACT) according to National Guidelines through community case management (up to 2013)	Number of children under five years old with a fever (cases) who received appropriate anti-malarial treatment from Community Based Providers (CBPs)	**Numerator:** Number of children under five years old with a fever (cases) who received appropriate anti-malarial treatment from Community Based Providers (CBPs) **Denominator**: Total number of children under five years of age who were treated/seen by Community Based Providers (CBPs).	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Number of persons age five years and above (adolescent and adult) with fever who receive appropriate antimalarial treatment (ACT) according to National Guidelines through	Number of children above five years, adolescent and adult, with a fever (cases) who were treated by CBPs according to the National Malaria Treatment Policy	**Numerator:** Number of children above five years , adolescent and adult with a fever (cases) who were seen by CBPs according to the National Malaria Treatment Policy **Denominator:** Total number of children above five years ,adolescent and adult who were treated by CBPs.	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
community case management (up to 2013)								
Percentage of health facilities with no reported stock-outs of rapid diagnostic tests or microscopes lasting more than 1 week at any time during the past 3 months	Number of health facilities visited with no stock out of RDTs or reagents and slides for microscopy lasting more than 1 week at any time	**Numerator:** Number of health facilities on the day visited with no reported stock out of RDTs or reagents and slides for microscopy lasting more than 1 week at any time during the past 3 months **Denominator:** Total number of health facilities visited	LMIS	Routine	LMIS Tools	Descriptive and Inferential statistics Appropriate software	CMS/NMCP/ DPPI	Every 3 months (Quarterly)
Percentage of health facilities with no reported stock-outs of ACT continuously for more than one week in the last quarter	Percentage of health facilities that reported no stock out of ACT Continuously for more than one week in the last quarter out of the total number number of health facilities that reported	**Numerator:** Number of health facilities with no reported stock out of ACT continuously for more than one week in the last quarter. **Denominator:** Total number of health facilities	LMIS	Routine	LMIS Tools	Descriptive and Inferential statistics Appropriate software	CMS/NMCP/ DPPI	Every 3 months (Quarterly)
Percentage of community health volunteers /CBPs trained on home management of malaria (Now CCMm)	percentage of Community Health Volunteers/ CBPs trained out of the yearly target (cumulative))	**Numerator :**Number of community Health Volunteers /CBPs trained on home management of malaria **Denominator:** Total number of community Health Volunteers/CBPs	Training report	Routine	Training Records	Tabulation	NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
		targeted to be trained on HMM (Now CCMm)						
Objective 3: To reduce the proportion of severe malaria cases by 50% by 2015.								
Percentage of patients hospitalised with a diagnosis of severe malaria.	Percentage of patients hospitalised with a diagnosis of severe malaria in health facilities out of total admission during a given period	**Numerator:** Number of patients hospitalised with a diagnosis of severe malaria in a specific period **Denominator:** Total number of patients hospitalised in a specific period	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Percentage of severe malaria cases treated according to the national guidelines at health facilities	percentage of severe malaria cases treated appropriately according to national treatment guideline out of total number ofsevere malaria cases treated in health facilities during a given period	**Numerator:** Number of severe malaria cases treated appropriately according to national treatment guideline in health facilities **Denominator:** Total number of severe malaria treated	MIS	Health Facility Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-3 years
Percentage of severe malaria cases that received appropriate pre-referral treatment and refer to higher level according to national	percentage of severe malaria cases who received appropriate pre-referral treatment according to national treatment guidelines out of total number of severe malaria	**Numerator:** Number of severe malaria cases treated appropriately with pre-referral drug in PHUs and referred. **Denominator:** Total number of severe malaria case treated in PHUs	MIS	Health Facility Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS	Every 2-3 years

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
guidelines	cases seen at PHU level.							
Percentage of health facilities with no reported stock-outs of pre-referral Artesunate suppositories continuously for more than one week in the last quarter	Percentage of health facilities that reported no stock out of pre-referral Artesunate suppositories Continuously for more than one week in the last quarter out the total number of health facilities that reported...	Numerator: Number of health facilities with no reported stock out of pre-referral Artesunate suppositories continuously for more than one week in the last quarter. Denominator: Total number of health facilities	LMIS	Routine	LMIS Tools	Descriptive and Inferential statistics Appropriate software	CMS/NMCP/ DPPI	Every 3 months (Quarterly)
Multiple Prevention Methods								
Objective 4: To Increase access to the uptake of at least two doses of Intermittent Preventive Treatment (IPTp) among pregnant women at health facility and community levels from 72.3% to 90% by 2015.								
Percentage of pregnant women receiving at least two doses of IPTp	Number of pregnant women who received at least two doses of IPT with the recommended anti-malarial medicine at the health facility and community levels out of the total yearly targeted number of pregnant women that should benefit from this intervention X100	**Numerator:** Number of pregnant women who received at least two doses of IPT with the recommended anti-malarial at the health facility and community level **Denominator:** Total number pregnant women targeted..	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Percentage of pregnant women who received at least two doses of IPT for malaria during their last pregnancy	Number of pregnant women who received at least two doses of IPTp during regular schedule ANC Visit under direct observation of a health worker.	**Numerator:** Number of women who received at least two doses of a recommended IPTp, to prevent malaria during their last pregnancy that lead to a live birth within the last two years. **Denominator:** Number of women surveyed who delivered a live baby within the last two years.	MIS	Health Facility Based Survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MoHS	Every 2-3 years
Percentage of Community Based Providers (TBAs) trained on IPTp	Percentage of TBAs trained on IPT out of the total number of TBAs targeted in the targeted communities	**Numerator:** Number of community Based Provider (TBAs) trained on IPTp **Denominator:** Total number of community Based Providers (TBAs) targeted to be trained on IPTp	Training report	Routine	Training Records	Tabulation	NMCP	Every 3 months (Quarterly)
Objective 5: To increase the percentage of people having access to at least one prevention method such as LLINs, IRS and or other methods from 25.9% to 80% by end of 2015.								
Percentage pregnant women who received LLIN during ANC	Percentage of pregnant women that received LLIN out of the total number of pregnant women who attended ANC first visit.	**Numerator:** Number of pregnant women that received LLINs in a specific time **Denominator: Total** number of pregnant women that attended first ANC in a specific time	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Percentage of children under 5 years that received LLIN through EPI	Percentage of children under 5 years that received LLIN out of the targeted number children under five	**Numerator:** Number of children under 5 years that received LLIN and Penta 3 **Denominator:** Total number of children under	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
	years that received Penta 3	five that received pental3 at a specified period.						
Percentage of structures sprayed in the last six months	Number of structures sprayed with insecticide out of those targeted x 100	**Numerator:** Number of structures that were sprayed with insecticide **Denominator:** Number of targeted structures	Spray report	Routine/ Seasonal	IRS Tools	Descriptive and Inferential statistics Appropriate software	MOHS/WHO	Every 6 months
Percentage reduction in sporozoite level following IRS spraying	Reduction in Number of sporozoite count per slide	**Numerator:** Number of sporozoite count **Denominator:** Total number of standard minimum accepted level of sporozoite count	IRS Sentinel site report	Routine	IRS Tools	Descriptive and Inferential statistics Appropriate software	MOHS/WHO	Every month
Percentage of communities sprayed with insecticide	Percentage of communities sprayed out of the total number of targeted communities	**Numerator:** Number of communities that were sprayed with insecticide **Denominator:** Number of targeted communities	Spray report	Routine/ Seasonal	IRS Tools	Descriptive and Inferential statistics Appropriate software	MOHS/WHO	Every 6 months
Percentage of targeted areas that larva control is conducted	Number of larva sources treated out of the total number of larva identified and targeted for treatment X 100	**Numerator:** Number of larva sources treated **Denominator:** Number of larva sources targeted to be treated.	IRS Sentinel site report	Routine	IRS Tools	Descriptive and Inferential statistics Appropriate software	MOHS/WHO	Every month

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Objective 6: Increase the utilization of at least one prevention method, Long Lasting Insecticide Treated Nets (LLINs), IRS and/or other appropriate methods among the entire population to 80% by 2015								
Percentage of the population at risk covered by In-door Residual spraying	Number of people at risk covered by IRS out of the targeted population X100	**Numerator**: Number of persons protected by IRS **Denominator:** Number of person at risk for malaria.	Spray report	Routine/ Seasonal	IRS Tools	Descriptive and Inferential statistics Appropriate software	MOHS/WHO	Every 6 months
Objective 7: To increase the knowledge, attitude and skills of the general population towards the use of preventive and control measures against malaria from the current levels to 80% by 2015.								
Percentage of people (or target groups) who know the causes of, symptoms of, treatment for or preventive measures for malaria [MAL-P12]	Number of people that recognise signs and symptoms of malaria and take appropriate action out of the total number people targeted x 100	**Numerator**: Number of people who cite the cause of, symptoms of, treatment for or preventive measures for malaria **Denominator:** Number of people surveyed	KAP	population based survey	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS/ RBM Partners	Every 2 years
Number and percentage of active community health clubs mobilized to deliver BCC outreach activities	Number of community health clubs mobilized to deliver BCC outreach activities	Numerator: Number of active community health clubs Denominator Number of targeted community health clubs	KAP/HMIS/Administrative report / Evaluation report	population based survey/ Routine	Structured Questionnaires	Descriptive and Inferential statistics Appropriate software	SSL/MOHS/ RBM Partners	Every 2 years

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection
Number and percentage of In-school youth participating in school health clubs that include a malaria module.	Number of youth participating in school health clubs activities that include a malaria module.	Numerator: Number of youth participating in school health clubs with malaria module Denominator Total Number of youth in school health clubs	Training report	Routine	Training Records	Tabulation	NMCP	Every 3 months (Quarterly)
Number and percentage of district stakeholders sensitization meetings held on IRS	Number of district stakeholders sensitization meetings held on IRS	Numerator: Number of district stakeholders sensitization on IRS Denominator Total Number of planned meetings	Sensitization report	Routine	Minutes of meetings	Tabulation and Pictures	NMCP	Every month
Number percentage of community stakeholders sensitization meetings held on IRS	l Number of community stakeholders sensitization meetings on IRS held	**Numerator:** Number of community stakeholders sensitization on IRS **Denominator:** Total Number of planned meetings	Sensitization report	Routine	Minutes of meetings	Tabulation and Pictures	NMCP	Every month

Indicators	Indicator Definition	Numerator/Denominator	Data Source	Approach/ Method	Tools For Collecting Information	Methods And Tools For Data Analysis	Responsible Body/Entity	Frequency of Data Collection

Number and Percentage of community sensitization meetings conducted on IPT, LLINS and CCMm	Number of community sensitization meetings on IPT, LLINS CCMm conducted	**Numerator:** number of community sensitization meeting on IPTp, LLINS CCMm **Denominator:** Total Number of planned sensitization sessions	Reports/ Attendance list	Report	Review of report and attendance	Report	NMCP/ Partners	Monthly/ Quarterly/ Yearly
Objective 8: To strengthen management and implementation capacity of the National Malaria Control Programme through effective coordination of partners.								
Number of coordinated technical working groups and/ or task forces meetings held	Meetings held at National and District levels on Malaria prevention and control related activities.	**Numerator**: Number of meetings/ working session held. **Denominator:** Total number of planned meetings	Report	Routine	Minutes	Tabulation	NMCP	Every Quarter
Number of RBM partnership coordination meetings held	RBM meetings held at National and District levels on Malaria prevention and control related activities.	**Numerator:** Number of meetings held. **Denominator:** Total number of planned meetings	Report	Routine	Minutes	Tabulation	NMCP	Every Quarter
Percentage of malaria policies, strategies and guidelines developed in line with the national health policies	Malaria policies, strategies and guideline developed in line with the national health policies out of the targeted number of documents to be produced	**Numerator:** Number of malaria policies strategies and guideline developed. **Denominator**: Total number of planned malaria policies, strategies and guidelines to develop.	Report	Routine	Minutes	Tabulation	NMCP	Every Quarter
Indicators	**Indicator Definition**	**Numerator/Denominator**	**Data Source**	**Approach/ Method**	**Tools For Collecting Information**	**Methods And Tools For Data Analysis**	**Responsible Body/Entity**	**Frequency of Data Collection**

Percentage of required resources for National Malaria control activities mobilized.	Amount of resources mobilized for the implementation of planned activities.	**Numerator:** Amount mobilized for a specific period **Denominator:** Total amount needed for a specific period	Approved proposal budget	Routine	Proposal Document	Tabulation	MOHS	Every Quarter
Indicators	**Indicator Definition**	**Numerator/Denominator**	**Data Source**	**Approach/ Method**	**Tools For Collecting Information**	**Methods And Tools For Data Analysis**	**Responsible Body/Entity**	**Frequency of Data Collection**
Percentage of required staff available in the programme.	Adequate number and appropriate cadre of staff available for program implementation	**Numerator:** Number of appropriate cadre of staff for a specific period **Denominator:** Total number of staff required.	Human resource plan	Routine	Staff list	Tabulation	MOHS	Every Quarter
Objective 9: To strengthen surveillance, monitoring, evaluation and operational research for effective programme management.								
Percentage of health facilities submitting complete reports on time (DHIS)	Number of health facilities that submitted complete reports on time out of the total number of health that reported.	**Numerator:** Number of health facilities (PHU) submitting complete reports on time. **Denominator:** Total number of targeted health facilities (PHU) in the country;	HMIS	Routine	HMIS Tools	Descriptive and Inferential statistics Appropriate software	DPPI/NMCP	Every 3 months (Quarterly)
Percentage of health facilities submitting complete requisition forms(RR&IV) on time (LMIS)	Number of health facilities that submitted complete requisition forms (RRIV) on time out of the total number of health facilities that reported .RR&IV) on time.	**Numerator:** Number of health facilities (PHU) submitting complete requisition forms (RR&IV) on time. **Denominator:** Total number of targeted health facilities (PHU) in the country;	LMIS	Routine	LMIS Tools	Descriptive and Inferential statistics Appropriate software	CMS/NMCP	Every 3 months (Quarterly)
Indicators	**Indicator Definition**	**Numerator/Denominator**	**Data Source**	**Approach/ Method**	**Tools For Collecting Information**	**Methods And Tools For Data Analysis**	**Responsible Body/Entity**	**Frequency of Data Collection**

Percentage of health workers and community health workers supervised.	Number of health workers and community health volunteers supervised by DHMT, National and other partners out of the targeted number health workers (Facility and community)..	**Numerator:** Number of health workers and community health volunteers supervised. **Denominator:** Total number of health workers and community health volunteers.	Supervision report	Routine	Supervision tools	Tabulation	DHMT/ NMCP/SRs/ DPPI	Every 3 months (Quarterly)

2.3 M&E INDICATORS MATRIX

Table 2: Monitoring and Evaluation Indicator Matrix

No.	Indicator	Operational Definition	Level of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
Impact and Outcome Indicators											
	All-cause under-5 mortality rate	The number of deaths of children under 5 years of age per 1000	National	DHS, MICS	Every 4- 5 years	140/1000 LB [DHS] (2008)	-	120/1000	-	125/1000	90/1000
	Parasite prevalence: children aged 6 - 59 months with malaria infection (detection of parasitaemia by microscopy) (percentage) (MAL-I3)	The number of children aged 6-59 months with positive RDT / Blood slides per 100 children tested.	National	DHS, MIS	Every 4-5 years	Not available	-	Set baseline in 2012	-	7% reduction of baseline	-
	Percentage of slides or rapid diagnostic tests found positive among all slides and Rapid Diagnostic Tests (RDTs) [MAL-I6]	The proportion of test (microscopy and/or RDT) that are positive for malaria among the suspected cases tested for malaria.	National & District	HMIS	Every 3 months (Quarterly)	Not available	Set baseline	2% reduction of baseline	4% reduction of baseline	6% reduction of baseline	8% reduction of baseline
	Percentage of children under 5 with confirmed malaria in the last two weeks who received ACT within 24 hours of onset of fever [MAL-T7] at the facility level	Number of children under 5 years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever divided by number of children with fever who visited health facility x 100	National	MIS	Every 2-3 years	Not available		50%		70%	

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of children under 5 with confirmed malaria in the last two weeks who received ACT within 24 hours of onset of fever [MAL-T7] at the community level	Number of children under 5 years with confirmed malaria in the last two weeks who received ACT within 24 hours of the onset of fever divided by number of children with fever at community level x 100.	National	MIS	Every 2-3 years	Not available		25%		65%	
	Percentage of children U5 who slept under a Long Lasting Insecticidal Net (LLIN) the previous night (MAL-P5)	Number of children under five years old who slept under an LLIN the previous night divided by the total number of children under five in the households surveyed X 100	National	MIS, MICS, DHS	Every 2-5 years	44.1% MIS 2010		75%		80%	
	Percentage of pregnant women who slept under a Long Lasting Insecticidal Net (LLIN) the previous night (MAL-P9)	Number of pregnant women who slept under LLIN the previous night divided by the total number of women interviewed X 100	National	MIS, MICS, DHS	Every 2-5 years	46.8% MIS 2010		78%		80%	
	Percentage of households with at least one LLIN (SLMC-SP - 2010)	Number of households having at least one LLIN divided by total number of households visited x 100	National	MIS, MICS, DHS	Every 2-5 years	38.9% MIS 2010		95%		100%	

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of households with at least two LLINs (GF)	Number of households having at least two LINs divided by total number of households visited x 100	National	MIS, MICS, DHS	Every 2-5 years	Not Available	-	80%	-	85%	-
	Percentage of women who received two or more doses of Intermittent preventive treatment (IPT) for malaria during their last pregnancy (in last 2 years) [MAL-P10]	Number of women who have taken intermittent preventive treatment, according to national drug policy divided by total number of pregnant women interviewed/ whose ANCS has been reveiwed x 100	National	MIS, MICS, DHS	Every 2-5 years	72,3% MIS 2010		85%		90%	
Case Management											
Objective 1. To scale up confirmatory diagnosis of malaria in all patients from 25.8% to 80% by 2015.											
	Percentage of Health facilities providing diagnosis either through RDTS or Microscopy	Percentage of Health facilities that are providing diagnosis either through RDTS or Microscopy out of the targeted health facilities.	National and District	HMIS	Every 3 months (Quarterly)	100%	100%	100%	100%	100%	100%
	Percentage of suspected malaria cases confirmed by laboratory testing (RDT or microscopy).	Percentage of suspected malaria cases confirmed by laboratory testing (RDT or microscopy) out of the total cases tested.	National and District	HMIS	Every 3 months (Quarterly)	Not Available	60%	60%	70%	80%	90%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Number and percentage of suspected cases of malaria tested using RDT at the community level (starting from 2013)	Number of suspected cases of malaria tested using RDT out of the total number targeted at the community level.	National and District	HMIS	Every 3 months (Quarterly)	Not Available	-	-	Set baseline	50% (630875/ 1261750)	55% (664071/1 207402)
	Percentage of health staff trained in microscopy and/ or rapid diagnostic tests	Percentage of health staff trained in microscopy and/ or rapid diagnostic tests out of the total targeted health staff in the targeted health facilities	National and District	Training report	Every 3 months (Quarterly)	38.5% (NMCP Training records 2009)	55%	60%	70%	75%	80%
	Percentage of Community Based Providers trained on RDTs	Percentage of community Based Providers (CBPs) trained to use rapid diagnostic tests out of the total number of CBPs targeted in the targeted communities	District	Training report	Every 3 months (Quarterly)	62.4% NMCP Training Records 2009	68%	75%	80%	80%	80%
	Percentage of RDTs used at Health Facilities	Percentage of patients tested with RDTs(Under five, Adolescent and Adult) at health facilities	National and District	HMIS	Every 3 months (Quarterly)	50% Routine Data, 2007	70%	75%	80%	85%	90%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
Objective 2:To increase prompt and effective treatment of malaria from 50% in 2010 to 80% for all age groups by 2015.											
	Percentage of people over 5 years with confirmed diagnosis out of those who receive ACT according to National Guidelines in health facility	Percentage people over 5 years with confirmed malaria and received ACT according to National Guidelines in health facility	National and District	HMIS	Every 3 months (Quarterly)	54.2% HMIS 2009	60%	70%	80%	80%	80%
	Percentage of children under 5 years with confirmed diagnosis out of those who receive ACT according to National Guidelines in health facility	Percentage of children under 5 years with confirmed diagnosis and - received ACT according to National Guidelines in health facility	National and District	HMIS	Every 3 months (Quarterly)	Not Available	30%	50%	60%	70%	80%
	Number of children under 5 years with fever who receive appropriate antimalarial treatment (ACT) according to National Guidelines through community case management (up to 2013)	Number of children under five years old with a fever (cases) who received appropriate anti-malarial treatment from Community Based Providers (CBPs)	National and District	HMIS	Every 3 months (Quarterly)	529792 HMIS, 2009	(163,978)	(293,865)	(289,643)	-	-
	Number of persons age five years and above (adolescent and adult) with fever who receive appropriate antimalarial treatment (ACT) according to National Guidelines through community case management (up to 2013)	Number of children above five years, adolescent and adult, with a fever (cases) who were treated by CBPs according to the National Malaria Treatment Policy	National and District	HMIS	Every 3 months (Quarterly)	557586 HMIS, 2009	(400,808)	(697,597)	(688,089)	-	-

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of health facilities with no reported stock-outs of rapid diagnostic tests or microscopes lasting more than 1 week at any time during the past 3 months	Number of health facilities visited with no stock out of RDTs or reagents and slides for microscopy lasting more than 1 week at any time	National and District	LMIS	Every 3 months (Quarterly)	85.4% HMIS, 2010	80%	90%	92%	95%	95%
	Percentage of health facilities with no reported stock-outs of ACT continuously one week in the last quarter	Percentage of health facilities that reported no stock out of ACT Continuously for more than one week in the last quarter out of the total number of health facilities that reported.	National and District	LMIS	Every 3 months (Quarterly)	76.6% Routine Data 2009	80%	87%	90%	95%	95%
	Percentage of community health volunteers /CBPs trained on home management of malaria (Now CCMm)	percentage of Community Health Volunteers/ CBPs trained out of the yearly target (cumulative)	National and District	Training report	Every 3 months (Quarterly)	62.4% NMCP Training Records , 2009	68%	75%	80%	80%	80%
Objective 3: To reduce the proportion of severe malaria cases by 50% by 2015.											
	Percentage of patients hospitalised with a diagnosis of severe malaria.	Percentage of patients hospitalised with a diagnosis of severe malaria in health facilities out of total admission during a given period	National and District	HMIS	Every 3 months (Quarterly)	Not Available	Set baseline	20% reductio n	35% reduction	50% reduction	50% reduction

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of severe malaria cases treated according to the national guidelines at health facilities	percentage of severe malaria cases treated appropriately according to national treatment guideline out of total number of severe malaria cases treated in health facilities during a given period	National	MIS	Every 2 years	Not Available		Set baseline	-	100%	-
	Percentage of severe malaria cases that received appropriate pre-referral treatment and refer to higher level according to national guidelines	Percentage of severe malaria cases who received appropriate pre-referral treatment according to national treatment guidelines out of total number of severe malaria cases seen at PHU level.	National	MIS	Every 2 years	Not Available	-	Set baseline	-	100%	-
	Percentage of health facilities with no reported stock-outs of pre-referral Artesunate suppositories continuously one week in the last quarter	Percentage of health facilities that reported no stock out of pre-referral Artesunate suppositories Continuously for more than one week in the last quarter out the total number of health facilities that reported..	National and District	LMIS	Every 3 months (Quarterly)	NA	85%	90%	95%	95%	95%
Objective 4: To Increase access to the uptake of at least two doses of Intermittent Preventive Treatment (IPTp) among pregnant women at health facility and community levels from 72.3% to 90% by 2015.											
	Percentage of pregnant women receiving at least two doses of IPTp	Number of pregnant women who received at least two doses of IPT with the recommended anti-malarial medicine at the health facility and community	National and District	HMIS	Monthly/ Quarterly	72.3% (MIS 2010)	80%	85%	85%	90%	90%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
		levels out of the total yearly targeted number of pregnant women that should benefit from this intervention X100									
	Percentage of pregnant women who received at least two doses of IPT for malaria during their last pregnancy	Percentage of pregnant women who received at least two doses of IPTp during regular schedule ANC Visit under direct observation of a health worker.	National	MIS	Every 2 years	72.3% MIS 2010	-	85%	-	90%	-
	Percentage of Community Based Providers (TBAs) trained on IPTp	Percentage of TBAs trained on IPT out of the total number of TBAs targeted in the targeted communities	National and District	Training Report	Every 3 months (Quarterly)	100% [NMCP/ MOH Routine data Quarter 4 of Round 7 in2009 (1958 TBAs were trained)	100%	100%	100%	100%	100%
Objective 5: To increase the percentage of people having access to at least one prevention method such as LLINs, IRS and or other methods from 25.9% to 80% by end of 2015.											
	Percentage pregnant women who received LLIN during ANC	Percentage of pregnant women that received LLIN out of the total number of pregnant women who attended ANC first visit.	National and District	HMIS	Every 3 months (Quarterly)	70.3% (2009 Routine data)	78%	80%	80%	80%	80%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of children under 5 years that received LLIN through EPI	Percentage of children under 5 years that received LLIN out of the targeted number children under five years that received Penta 3	National and District	HMIS	Every 3 months (Quarterly)	100% [NMCP/ MOH Routine Data Quarter 6]Round 7 2006(223,912 children under five)	100%	100%	100%	100%	100%
	Percentage of structures sprayed in the last six months	Number of structures sprayed with insecticide out of those targeted	National and District	Spray report	Every 6 months	97% (IRS Report 2011)	100%	100%	100%	100%	100%
	Percentage reduction in sporozoite level following IRS spraying	Reduction in Number of sporozoite count per slide	National and District	IRS Sentinel site report	Every month	Not Available	-	Set baseline	50% reduction	50% reduction	50% reduction
	Percentage of communities sprayed with insecticide	Percentage of communities sprayed out of the total number of targeted communities X 100	National and District	Spray report	Every 6 months	60% NMCP IRS Report 2011	100%	100%	100%	100%	100%
	Percentage of targeted areas that larva control is conducted	Number of larva sources treated out of the total number of larva identified and targeted for treatment X 100	National and District	IRS Sentinel site report	Every month	Not Available	-	-	Set baseline	100%	100%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
Objective 6: Increase the utilization of at least one prevention method, Long Lasting Insecticide Treated Nets (LLINs), IRS and/or other appropriate methods among the entire population to 80% by 2015											
	Percentage of the population at risk covered by In-door Residual spraying	Number of people at risk covered by IRS out of the targeted population X100	National and District	Spray report	Every 6 months	36% (IRS Report 2011)	85%	85%	85%	85%	85%
Objective 7: To increase the knowledge, attitude and skills of the general population towards the use of preventive and control measures against malaria from the current levels to 80% by 2015.											
	Percentage of people (or target groups) who know the causes of, symptoms of, treatment for or preventive measures for malaria [MAL-P12]	Number of people that recognise signs and symptoms of malaria and take appropriate action out of the total number people targeted 100	National	KAP	Every 2 years	Not Available	Set baseline	75%	-	80%	-
	Number and Percentage of active community health clubs mobilized to deliver BCC outreach activities	Number of community health clubs mobilized to deliver BCC outreach activities	National	KAP	Every 2 years	Not Available	-	95% (1055/ 1110)	100% (1,110/ 1110)	100% (1,110/ 1110)	100% (1,110/ 1110)
	Number and percentage of In-school youth participating in school health clubs that include a malaria module.	Number of youth participating in school health clubs activities that include a malaria module.	National and District	Training report	Every 3 months (Quarterly)	Not Available	-	89% (3,315/ 3705)	100% (3,705/ 3705)	100% (3,705/ 3705)	100% (3,705/ 3705)
	Number and Percentage of district stakeholders	Number of district stakeholders	National and District	Sensitization report	Every month	8 [NMCP	100% (12/12)	100% (12/12)	100% (12/12)	100% (12/12)	100% (12/12)

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	sensitization meetings held on IRS	sensitization meetings held on IRS	National and District	Sensitization report	Every month	8 [NMCP IRS Phase 1 Report 2011]	100% (12/12)	100% (12/12)	100% (12/12)	100% (12/12)	100% (12/12)
	Number and Percentage of community stakeholders sensitization meetings held on IRS	Number of community stakeholders sensitization meetings on IRS held	National and District	Sensitization report	Every month	52 [NMCP IRS Phase 1 Report 2011]	100% (52/52)	100% (52/52)	100% (52/52)	100% (52/52)	100% (52/52)
	Number and Percentage of community sensitization meetings conducted on IPT, LLINS and CCMm	Number of community sensitization meetings on IPT, LLINS CCMm conducted	National and District	Reports/ Attendance list	Monthly/ Quarterly/ Yearly	Not Available	100% (52/52)	100% (52/52)	100% (52/52)	100% (52/52)	100% (52/52)
Objective 8: To strengthen management and implementation capacity of the National Malaria Control Programme through effective coordination of partners											
	Number of coordinated technical working groups and/ or task forces meetings held	Meetings held at National and District levels on Malaria prevention and control related activities.	National and District	Report	Every Quarter	Not Available	4	4	4	4	4
	Number of RBM partnership coordination meetings held	RBM meetings held at National and District levels on Malaria prevention and control related activities.	National and District	Report	Every Quarter	12 (2009, NMCP Report)	12	12	12	12	12

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of malaria policies, strategies and guidelines developed in line with the national health policies	Malaria policies, strategies and guideline developed in line with the national health policies out of the targeted number of documents to be produced	National	Report	Every Quarter	Not Available	100%	100%	100%	100%	100%
	Percentage of required resources for National Malaria control activities mobilized.	Amount of resources mobilized for the implementation of planned activities.	National	Approved proposal budget	Every Quarter	10% GFR 10 Proposal 2009	30%	40%	50%	80%	80%
	Percentage of required staff available in the programme.	Adequate number and appropriate cadre of staff available for program implementation	National	Human resource plan	Every Quarter	51% SLM-SP 2011-2015	70%	80%	90%	100%	100%
Objective 9: To strengthen surveillance, monitoring, evaluation and operational research for effective programme management.											
	Percentage of health facilities submitting complete reports on time (DHIS)	Number of health facilities that submitted complete reports on time out of the total number of health that reported.	National and District	HMIS	Every 3 months (Quarterly)	96.3% HMIS 2010	100%	100%	100%	100%	100%

No.	Indicator	Operational Definition	Level Of Implementation	Data Source	Frequency of Collection	Baseline	Target				
							Y 1	Y2	Y3	Y4	Y5
	Percentage of health facilities submitting complete requisition forms(RR&IV) on time (LMIS)	Number of health facilities that submitted complete requisition forms (RRIV) on time out of the total number of health facilities that reported.	National and District	LMIS	Every 3 months (Quarterly)	60% UNICEF Routine data 2011	65%	75%	80%	90%	100%
	Percentage of health workers and community health workers supervised.	Number of health workers and community health volunteers supervised by DHMT, National and other partners out of the targeted number health workers (Facility and community).	National and District	Supervision report	Every 3 months (Quarterly)	68% NMCP Routine data 2009	100%	100%	100%	100%	100%

2.4 Data Collection Methods

Based on the local context and the national M&E plan, the following systems/data collection methods will be assessed:

Routine – HMIS (DHIS), IDSR, LLIN monitoring system, activity monitoring system, sentinel surveillance system, IRS monitoring system, drug efficacy testing and insecticide resistance monitoring.

Surveys – Household surveys (population-based) such as DHS, KAP, MIS, MICS and health facility assessments and surveys.

Logistics Management Information Systems (LMIS)
Other complimentary methods such as **supervision**, **Pharmacovigilance** and **operational research** will be used.

Due to the current challenges with the HMIS data in terms of timeliness, completeness, correctness and consistency which may compromise the quality of the data collected, planned activities are identified following the conduct of a malaria M&E systems strengthening assessment using the Monitoring and Evaluation Systems Strengthening Tool (MESST).

Modalities of collecting data on Programme Interventions at the service delivery points:

ACTs and RDTs are delivered at both the community and health facility levels. Health workers at the community, health facility and DHMT collect and summarize distribution, utilization and stock information on a monthly basis.

Intermittent Preventive Treatment (IPTp) is delivered under direct observation at antenatal clinics, outreach sessions and through the community based TBAs. Antenatal clinic records and Traditional Birth Attendant (TBA) records tally the number of women who received first and second doses of IPTp including third doses of IPT when applicable. These records are collated monthly by health facilities and the DHMTs.

LLINs distribution records from EPI and antenatal clinics are collated monthly at the health facilities and DHMTs.

Data on IRS is collated at district level by field supervisors and M&E Officers.

Data collection at the different Levels:

Community Level (CBPs and TBAs): The Community Based Providers (CBPs) and TBAs are responsible for clearly and accurately reporting data on their treatment activities. The primary data source for CCMm is the standardized CBPs *and TBA registers* kept by the CBPs and TBAs. During the monthly CBPs' and TBAs meeting with their respective Peripheral Health Unit the CBPs and TBAs are to submit their data for that reporting month.

Peripheral Health Unit (PHU): PHU staff is responsible for supervising data collection at the community level. The Officer In-charge collects the data from CBPs and TBAs every month. The data is then summarized and included in the monthly PHU F6 *Summary form for CBPs and TBAs*, which is then forwarded to the District Health Management Team (DHMT).
Additionally, the PHU staff is to clearly and accurately report data from the health facility in a timely manner using the PHU reporting forms (PHU F1 to F8).

District Health Management Team (DHMT): The data collected at each peripheral health facility are reviewed and collated into a district summary report by the Malaria Focal Person, which is submitted to the NMCP following the approval of District Medical Officer by the 10th of the subsequent month. This is transitional arrangement for a subsequent linkage of the NMCP database to the National HMIS database at DPPI. The DHMT coordinates malaria activities at district level including trainings and supervision. These records are submitted to NMCP.

M&E Unit (NMCP): Data from districts, DPPI and partners are collated, analysed, disseminated and used for management decision making.

2.5 Time Frame for M&E measurements

Table 3: Dissemination of M&E Products

Source of data	Reporting Frequency	Responsibility
HMIS	Monthly	DPPI
IDSR	Weekly/Monthly	DPC
LMIS	Monthly	CMS
LLIN monitoring system	Monthly	NMCP
Surveys: - DHS - MICS - MIS - KAP - Census	Every 5 years Every 5 years Every 2 years Every 2 years Every 10 years	SSL
Quarterly Report – Summary of completed outputs (target, achievement in the quarter and cumulative total from KPIs)	Quarterly	NMCP
Annual Reports- (Summary of completed outputs (target, achievement in the year and cumulative total from KPIs)	Annually	NMCP
Supervision reports	Quarterly	NMCP
Activity reports (e.g. training, site visit, spraying exercise)	Quarterly	NMCP

Table 4: Reporting and Feedback processes for KPIs

Feedback process	Deadline	Responsible person(s)
Facility monthly reports received by district M&E/Malaria Focal Points' office	5th	Facility In-charge or Head Nurse
Monthly district summary reports received at National level (DPPI and NMCP)	15th	DMO
District monthly data received by programs (e.g. Malaria)	25th	DPPI
Feedback reports received by Malaria Focal points/District M&E Officers from the National level (DPPI and NMCP)	30th	DPPI/NMCP

3.0 SECTION III - M & E ACTIVITY PLAN

3.1 Coordination of malaria M&E

The M&E plan will be implemented by all the RBM partners in Sierra Leone. Overall guidance will be provided by the NMCP in collaboration with DPPI/MOHS.
The existing national M&E sub-committee will provide guidance in the implementation of this plan. The National RBM partnership will also oversee the implementation of the National Malaria Strategic Plan.

As part of the health sector, the private sector will be providing needed malaria information through the national health information system. The NGOs are currently playing a critical role in providing health services. They also monitor the implementation of their activities and this information will be shared quarterly with the NMCP.

Coordination of activities and data collection will be facilitated through quarterly partner meetings, which includes all sub-recipients and other malaria partners. At each meeting the partners are expected to provide a summary of the malaria related activities that have taken place over the previous quarter.

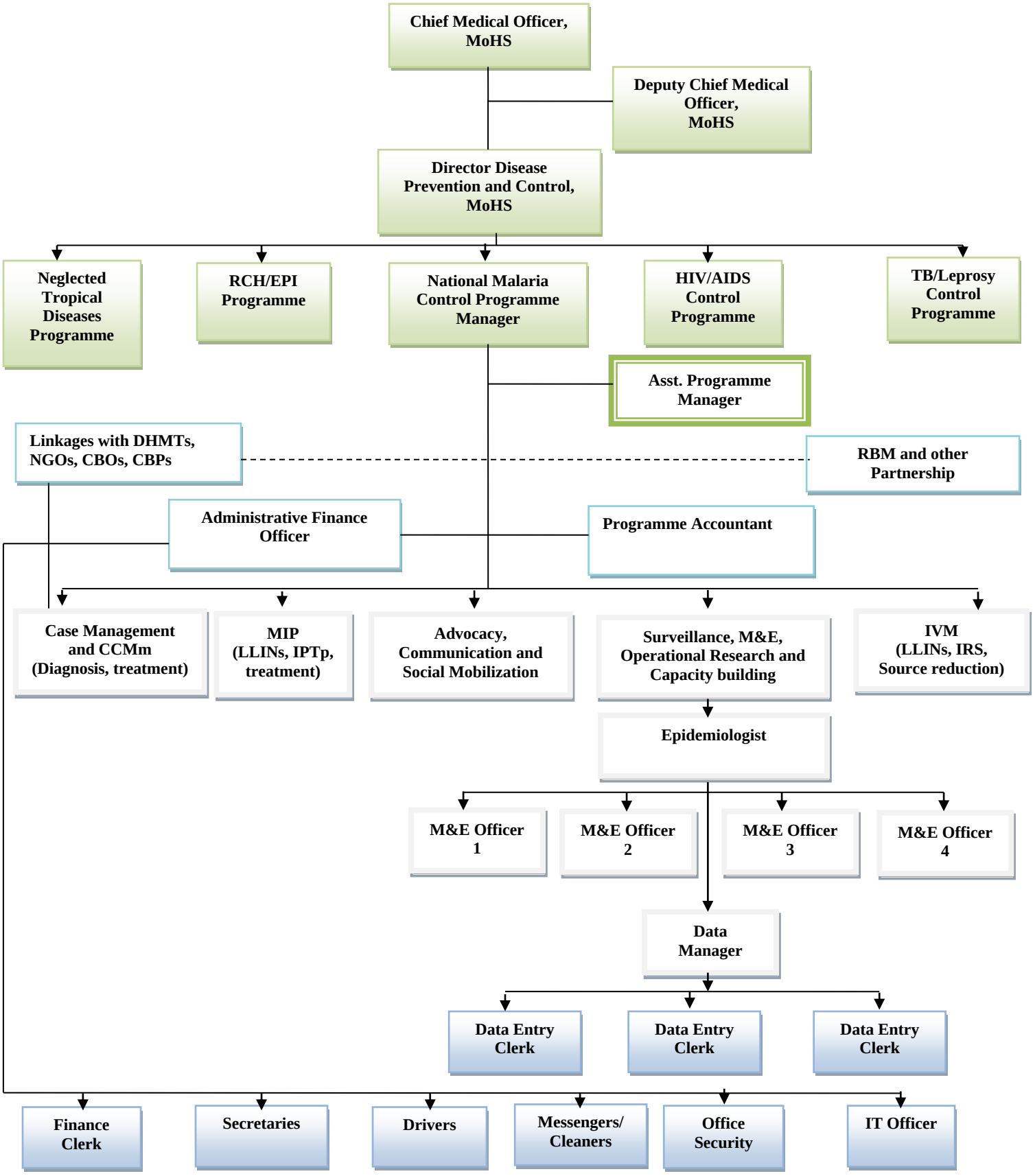
Additionally, a mapping exercise will take place of all malaria activities currently or projected to take place over the next two years. This will help to avoid duplication, assist with supervision and identify gaps. This mapping will be updated every quarter.

At the district level, the M&E officer and Malaria focal person will take a lead in ensuring that data generated for key performance indicators are captured in the DHIS and reported monthly to DPPI. Other information needed by the NMCP will be reported directly.

The NMCP has five (5) M&E Officers and 3 Data Entry Clerks. Currently one of the M&E Officers is pursuing a Masters degree course in Epidemiology. Three of the M&E Officers have completed additional short-term M&E training at Africa Medical

Research Foundation (AMREF). The capacity of the district Malaria Focal Persons will be enhanced in data collection and management. The capacity of the district M&E officers will be strengthen through supportive supervision and refresher training courses.

Figure 2: NMCP Organogram



3.2 Monitoring the malaria control program activities

Annual NMCP Operational Plan will be developed and its implementation monitored

3.3 Evaluation of the malaria programme in the country

The malaria prevention and control interventions will be evaluated as follows:

(i) Programme Review;
(ii) Mid Term Evaluation;
(iii) End of Term Evaluations;
(iv) Operational research.

The programme review will focus among other things on the following issues:

- Relevance of programme objectives
- Relevance of strategies employed
- Effectiveness of the programme
- Efficiency of implementation
- Sustainability of programme
- Gender mainstream in programme implementation
- Human rights approaching to programme implementation

Mid Term Evaluation (MTE)

This will be conducted mid way through the implementation of the National Malaria Strategic Plan (NMSP) in the third quarter of 2013. The MTE will assess programme performance and management capacities at central, district and amongst major partners. It will be undertaken by the programme and partners with external support.

Final/End of Term Evaluation

This will be done at the end of 2015 to assess the impacts generated by interventions implemented through guidance by the NMSP. Independent consultants will undertake the evaluation.

Operational Research

Various type of operational research will be conducted to improve program implementation of interventions.

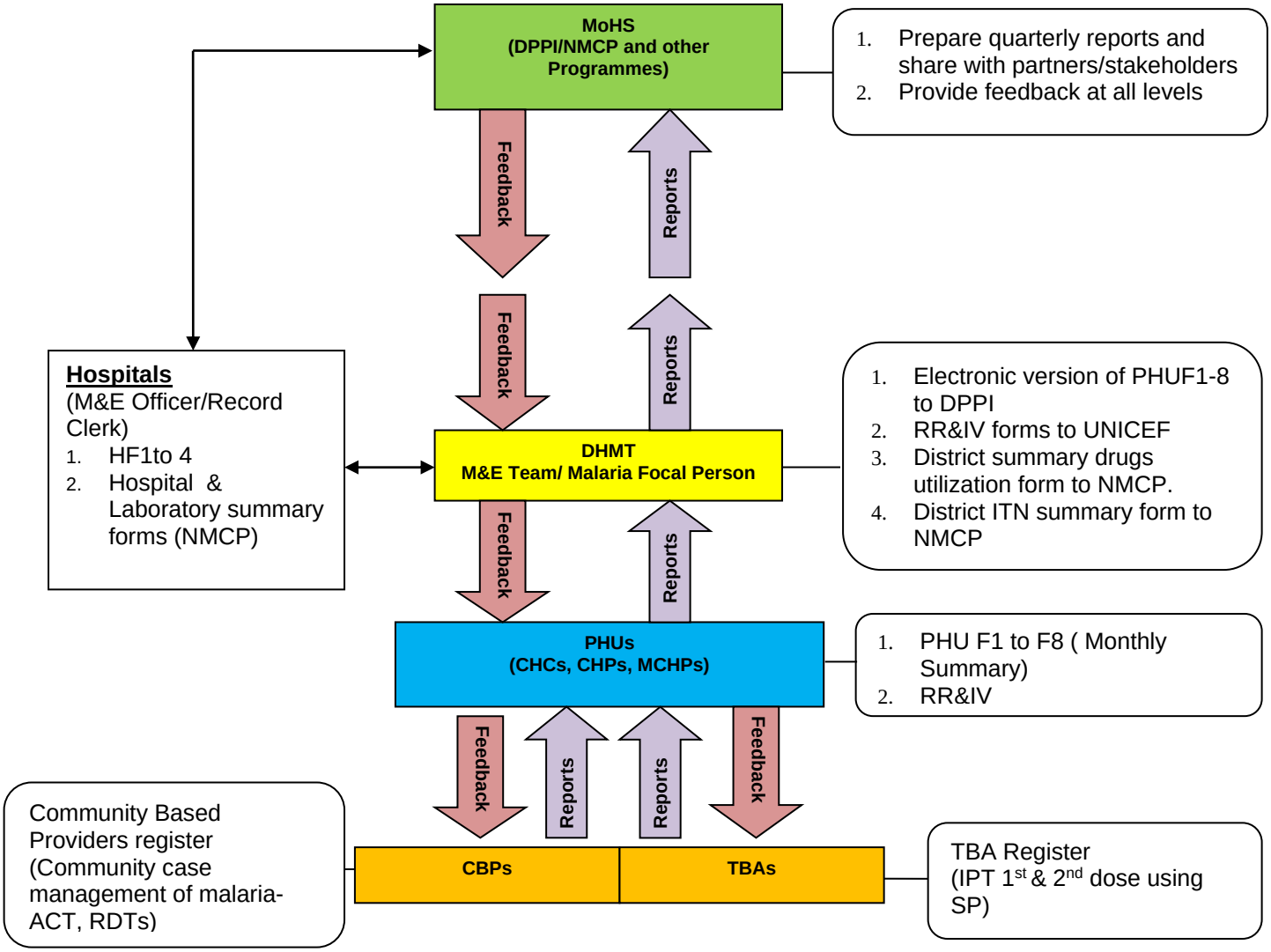
3.4 Data Flow

The Health sector requirement is that all facilities both private and public are to report monthly on all services provided. Communities report through the Health facilities in which they are located. During the monthly CBPs' and TBAs meeting with their respective Peripheral Health Unit the CBPs and TBAs submit their data for that reporting month.

Health Facilities summaries (PHU F1 to F8) are completed and verified by the in-charges and submitted to the DHMTs. Districts enter the data received from the health facilities into DHIS2. This data is transmitted electronically to DPPI. However, as part of the process for NMCP to integrate malaria data into the National HMIS, a customised DHIS2 database is currently installed at the NMCP. As the malaria database at NMCP is yet to be linked with the National HMIS, a transitional arrangement is made for the DHMTs to complete NMCP district summary forms which are then transmitted manually (paper base) to NMCP for data entry.

Hospital summary forms (HF1 and 2) are submitted to DHMTs for onwards transmission to DPPI manually (paper base) In addition NMCP surveillance summary forms are completed and submitted to DHMT for onwards transmission manually (paper base) to NMCP.

Figure 3: Data Flow



At community level:

1. Community Based Providers register – data on the services provided at community level (e.g. for malaria, data on treatment administered).
2. Traditional Birth Attendance register – data on the services provided at community level (e.g. For malaria, data on IPT)

At Peripheral Health Unit (PHU) level:

1. PHUF1 – Monthly morbidity summary data (eg. For malaria - Suspected cases, confirmed case using RDTs/ microscopy , cases treated with ACT and without ACT)

2. PHUF2 – Monthly summary data on children's preventive services (e.g. For malaria – LLINs distributed to children under five years)
3. PHUF3 – Monthly summary data on reproductive health services (e.g. for malaria - IPTp administered and LLINs distributed to pregnant women)
4. PHUF4- Monthly summary data on commodity stock (e.g. for malaria - SP for IPTp, ACTs, LLINs and RDTs)
5. PHUF5 – Monthly summary data on mortality (e.g. malaria deaths)
6. PHUF6 – Monthly summary for community interventions (e.g. for malaria - malaria morbidity, cases treated with and without ACTs, deaths at community level. IPTp)
7. PHUF7 – Semi-permanent data reporting (e.g. for malaria – malaria RDT/microscopy performed at facility level)
8. PHUF8 – Monthly report on TB/Leprosy and HIV.

At hospital level:

1. HF1 - Monthly outpatient morbidity data
2. HF2 -.Monthly in-patient morbidity data
3. HF3 – Monthly summary data on reproductive health services (e.g. for malaria – IPTp administered, LLINs distributed and malaria treatment)
4. HF4 – Monthly mortality summary data
5. Hospital Summary Form (NMCP) – Data on suspected cases of malaria, confirmed cases, cases treated with ACTs, deaths attributed to malaria, anaemia and ARI cases and stock level of ACTs and RDTs)
6. Hospital Laboratory Summary Form (NMCP) – Data on number of suspected cases seen, number tested , number positive/negative)

At district level (DHMT)

1. District Drug Utilization Summary (NMCP) – data on treatment, confirmed cases, IPTp, ANC visits, stock level of ACTs, RDTs and SP
2. District ITN Summary (NMCP) – data on LLINs distribution to children and pregnant women
3. District TBA Summary (NMCP) – data on IPTp
4. District CBP Summary (NMCP) – data on malaria cases treated by CBPs in community

At National level (DPPI/NMCP)

1. Quarterly bulletin(DPPI)
2. Quarterly report (NMCP)

Feedback mechanism

All health data collected should be analysed at all level to generate output that will be provided as feedback to improve health service delivery. This should be done regularly on a quarterly basis but can also be done more frequently.

Routine data for the monitoring is collected using the DHIS. The system provides opportunity for District level to generate report that is used to give feedback to facilities they supervised. NMCP/DPPI use the national aggregated data to provide feedback on performance to districts as well as develop standard report for partners.

3.5 Data Quality Assurance/ 4.3.3.4

Routine data must be of sufficient quality to support decision-making. Data quality will be ensured through periodic application of Routine Data Quality Assessment (RDQA) at the various levels (National, District and service delivery point). This will be carried out half yearly. Data quality will also be monitored during supportive supervision, rapid data verification visits and review meetings at all levels.

Data Quality Audit (DQA) of the health information system (HIS) and IDSR will be conducted periodically by external body/organization. However, on site data verification (OSDV) exercises will be conducted yearly on reported malaria data by the Local Fund Agent (LFA) of the Global Fund. DQA will also be conducted by external service provider (contracted by the GF) any time during the life cycle of the malaria grant implementation.

Standardized data collection tools will be utilized for data collection. Data is entered into standardized databases. During supervision, data will be verified from the registers at health facilities and the CBP/TBA registers. On-the-job training will be conducted on data verification, collection and analysis. Specific data quality

measures are to be carried out at all levels to ensure data accuracy and completeness.

A) Community Level (CBP and TBAs)

The Community Based Providers (CBPs) and Traditional Birth Attendants (TBAs) are responsible for clearly and accurately reporting data on summary forms every month. They are encouraged to cross check their data before submission.

B) Peripheral Health Unit (PHU)

PHU staff is responsible for supervising data collection at the community level. They are tasked to review all data forms and take corrective action if necessary. Additionally, the PHU staff is to clearly and accurately report data from the PHU in a timely manner. They are encouraged to cross check their data before submission. The PHU staff is also tasked with providing necessary feedback to the community level as appropriate.

C) District Health Management Teams

DHMT/Malaria Focal Persons/M&E Officers are responsible for supervising all malaria related data collection in the district. They are tasked to review all data forms and reports and take corrective action if necessary. Additionally, the DHMT/Malaria Focal Persons/M&E Officers staff are to clearly and accurately report data from the PHU to NMCP in a timely manner. They are encouraged to cross check their data before submission. The DHMT/Malaria Focal Persons/M&E Officers staff are also tasked with providing necessary feedback to the PHU and community levels as appropriate.

D) M&E Unit (NMCP)

M&E Unit is responsible for supervising all malaria related data collection and activities throughout the country. The Unit is tasked to review all data forms and reports and take appropriate action.

The M&E Unit verify data both when it is received and also during supervision visits in the field. Coaching and on-the-job training will form part of all supportive supervision. Supervision exit meetings are organised to share findings and give appropriate recommendation as well as develop actionable plans.

In order to ensure quality data is being collected, supervisory visits take place every quarter. To better facilitate effective and focused monitoring and supervision, the country has been divided up into four zones/regions as follows:

Table 5: Monitoring Zones

Zone	Districts
Zone 1	Bombali, Kambia, Port Loko, Koinadugu
Zone 2	Tonkolili, Kono, Kailahun, Kenema,
Zone 3	Bo, Bonthe, Moyamba, Pujehun
Zone 4	Western Area (Urban and Rural)

Following supervisory visits the M&E unit will provide the necessary feedback to the districts as appropriate.

E) Senior Staff (NMCP), M&E Staff (PR) and M&E Staff (MoHS/DPPI/DPC)

Occasionally Senior NMCP staff or M&E staff from the Principle Recipient or the MoHS/DPPI/DPC Unit will carry out supervisory visits to validate activities and data from the four other levels. This will be done by comparing data from reports with data at the field level. Feedback will be provided upon return during program and partner meetings.

3.5.1 Data Storage

Data are received and stored at all levels:

- At community level, data generated are kept in registers by TBAs and CBPs
- At PHUs level, data generated are kept in Tally Books, registers and summary forms are stored locally.
- At district level, data from PHUs are kept in DHIS 2.0. This is a district based information system that is integrated into data warehouse at national level.
- At central level, the DHIS data is kept in the national data warehouse.
- At NMCP data is stored in a customised database.

Every CBP/health unit/District/National should have a secured place for storing all HMIS data, preferably metallic cabinets. The person in-charge of records should be responsible for storing all filled HMIS data in the records store. Health data should be store by year and department to ease retrieval. The most current health files (not more than five years back) should be kept within the records office while other old files (greater than five years) should be archived.

For electronic storage a system will be set up to ensure daily data back-up and updates. External drive/storage devices should be used to back-up and update data from all computers used to collect data, whether networked or stand-alone. An offsite back-up facility will be set up.

Filing and Record keeping

At District and National levels

Items Needed: Folder or file, external storage media (flash drive, external hard drive, compact disks (CD) etc.)

- Assign separate folders for keeping both soft copies and hard copies of source (registers) and aggregated data/records.
- At the end of each day of update, save data on computer and an assigned external storage medium.
- At the end of every month (or update), save data on computer and a copy on an external storage medium (e.g. flash drive, external hard drive)
- Print a hard copy and place in designated folder and keep in a cabinet (or any other records keeping system used in the facility.)
- At the end of every quarter, print out data and add to folder in the cabinet (or any other records keeping system used in the facility.)
- The filing and record keeping system used at the facility should allow for easy retrieval of information.

At PHU and Community levels

Items Needed: Folder or file, cabinets/ cupboard

- Assign separate folders for keeping hard copies of source(registers) and aggregated data/records.
- The filing and record keeping system used at the facility and community should allow for easy retrieval of information.

3.6 Malaria Data Management

Currently routine data are collected in the public sector through the functioning Peripheral Health Units (PHUs), and all hospitals (public & private) that are distributed throughout the country across the 13 districts. The PHUs and hospitals gather data from client/patient registration forms, using tally sheets. These are collated onto paper based integrated reporting forms (PHUF1-8 and HF1-4) which are sent to the district office. Data from the community are included in the PHU's reporting forms. DHMT capture this data into an electronic District Health Information System (DHIS). The electronic data is forwarded to the Directorate of Planning and Information in the MOHS. The DHIS database will progressively be extended to capture data from other sources such as specific surveys, civil registration (births and deaths), research, supervision, private sector, civil society, resources and administrative records to give a broad picture of the country

Data Management – Community level

1. Clients are registered into the CBP/TBA Register
2. The registers are taken to the PHU responsible for the CBP/TBA for verification and compilation of the data submitted.
3. Following the compilation of the data by PHU staff, the registers are then taken back by the CBP/TBA.

Data Management – PHU level

1. Routine data collected from patient care are first entered into the registers and tally sheets by facility staff on a daily basis as they consult patients
2. The PHU In-charge (or any other person designated by the facility) collects, summarises and verifies data from various service delivery registers/tally sheets at the end of every month including CBP/TBA data using the HMIS PHU Forms for onward submission to the DHMT by the 5th of the following month.

3. The PHU In-charge (or any other person designated by the facility) checks the completeness, correctness and timeliness of the data before submission to the DHMT.
4. Copies of the monthly report sent to DHMT are kept at the health facility
5. The PHU staff performs simple analysis of the data collected by generating tables, graphs and charts and are displayed on walls at the PHU.

Data Management - DHMT

1. Data is collected from each PHU every month, entered in the DHIS and sent electronically to the national level and NMCP receives the paper base report (NMCP District Summaries)
2. Other relevant malaria information that is cleared by the DMO/ Head of Institution is sent directly to NMCP including hospital data.
3. The data is reviewed and all necessary corrections made. The completeness, correctness and timeliness of the data are checked.
4. The DHMT records on PHUs are updated each time data is received from PHUs and data analysis is carried out on a monthly basis.
5. All data and reports are filed by month in designated files.
6. DHMT replenishes data collection tools at health facility level.

Data Management- NMCP

1. Data (electronic version) received from the districts by DPPI is shared with NMCP.
2. The other relevant information from the districts is stamped "***Received***" and the date indicated on the document. The person that brought the report and the person that receive it sign the Register (Report Tracking Log Book).
3. The Data Manager physically reviews the data cleared by DMO/Head of Institutions. Comments and recommendations on the reviewed data are communicated to DHMT during for appropriate actions especially during supportive supervision. The tracking database is then updated indicating which District and the number of Health Facilities that have reported.
4. Double data entry is done by data entry clerks.
5. Following the completion of the double entry procedure, the data manager carries out consistency checks on the data for a given period. The completeness of the data set is also checked.

6. Periodic data analysis (quarterly) is carried out and the information is used for programmatic decision.

3.7 Dissemination of the Information and Information Products

Analysis of data will be done at various levels of the health sector. The products from the NMCP M&E system will include

- Monthly Report (internal consumption)
- Quarterly Reports
- Annual Reports
- Evaluation Reports
- Feedback meetings' reports with stakeholders
- Supervision reports
- Quarterly bulletin
- News letter

In order to facilitate use of information for decision making among the different programme stakeholders, a number of communication and feedback mechanisms are instituted as part of the M&E system. M&E products are disseminated as appropriate through:

Email

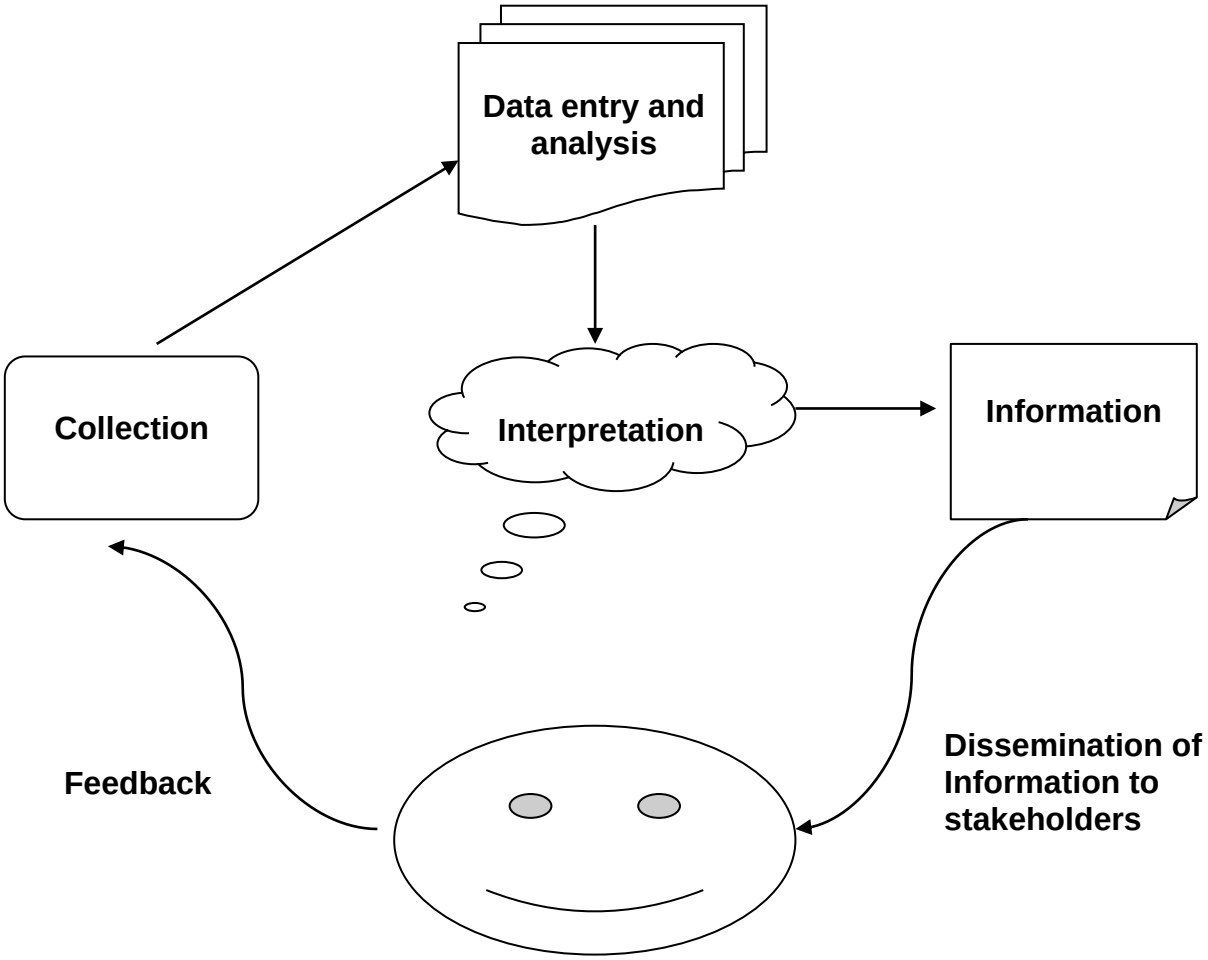
- Post
- Courier
- Delivered by hand
- During meetings

Other avenues for information sharing are sub-regional meetings (e.g. West Africa RBM Network (WARN), and West Africa Network for Monitoring Antimalarial Treatment (WANMAT). Reports from evaluation and research activities such as treatment efficacy studies and pharmacovigilance are published in relevant peer review journals.

Feedback is provided to the DHMT including the Malaria Focal Persons, M&E Officers and health workers on their performance with regards to malaria activities.

This is often done through coaching and on-the-job training during supportive supervision visits. The figure below outlines the data utilization cycle.

Figure 4: Data Utilization Cycle



3.8 Detailed Activity plan

Table 6: M & E activity work plan

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Finalize M&E Plan and Malaria Surveillance Frame work																								
	Conduct a 2 day retreat to finalize the updated M&E Plan	The National Malaria M&E plan 2011-2015 finalized				x																	NMCP	WHO,UNICEF,MRC, PBSL,UMC,CRS
	Conduct a 3 day retreat to develop Surveillance M&E framework.	Malaria surveillance framework developed				x																	NMCP	WHO, UNICEF, CRS,PBSL,MRC,& UMC
	Organize a one day validation workshop for the M&E plan	The National malaria M&E plan validated					x																NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, CRS & BRAC
	Organise a one day validation workshop for the surveillance framework,	Malaria surveillance framework validated					x																NMCP	WHO, DPC,PBSL,UNICEF, MRC, CRS & UMC
	Print and distribute copies of the finalised documents (M & E Plan)	350 copies printed and distributed					x																NMCP	WHO, UNICEF, GF,MRC, PLAN
	Print and distribute copies of the finalised document (surveillance Framework)	350 copies printed					x																NMCP	DPC,WHO ,UNICEF, GF
	Develop and print annual M&E operational plan	Annual M&E Operational plan printed					x				x				x				x				NMCP	WHO UNICEF , GF

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Assess M& E Capacity on data management at national and sub national levels																								
	Conduct the assessment of M&E capacity	Report of M&E capacity assessment available		x																			DPPI, NMCP	WHO, UNICEF, DPC,MRC, UMC, MSF,PLAN, SLRC, CRS & BRAC,
	Conduct a reassessment of M&E capacity	Report of M&E capacity assessment available										x											DPPI, NMCP	WHO, UNICEF, MRC, UMC,DPPI, DPC, MSF,PLAN, SLRC, CRS & BRAC,
Recruit M& E staff at national and sub national level																								
	Recruit 4 M& E staff - NMCP,	4 NMCP M&E staff recruited					x	x															MOHS/ PR	GF
	Recruit 14 M& E staff - district,	14 District M&E staff recruited					x	x															MOHS/ HR	-
	Recruit 45 M& E staff or data clerks - Hospitals,	45 M&E staff or data clerks recruited for hospitals					x	x															MOHS/ HR	-
	Recruit one IT officer for NMCP office.	IT officer recruited for NMCP					x	x															MOHS/ PR	-
	Procure Desk top computer, lap top, printer and photocopiers - NMCP & DPPI	6 desk tops, 2 lap tops, 2network printer, 2 photocopier procured			x																		MOHS/ PR	GF
	Procure and distribute Desk top computer, printer and photocopiers - 13 Districts	13desk tops, 13 lap tops, 13network printer, 13 photocopier procured																					MOHS/ DPPI	-
	Procure and distribute Desk top computer, printer and photocopiers - 13 Districts hospitals	13desk tops, 13network printer, 13 photocopier procured																					MOHS/ DPPI	-

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Develop a training plan to address gaps on data management																								
	Develop a training plan	Training plan developed			x																		MOHS /NMCP	WHO, UNICEF, MRC, GF,UMC, MSF,PLAN, SLRC, & BRAC, CRS
	Update the training plan	Training plan updated										x											MOHS /NMCP	WHO, UNICEF, MRC, GF,UMC, MSF,PLAN, SLRC, & BRAC, CRS
Review , finalize and disseminate the existing draft SOP(i.e. dealing with inconsistence, missing report, back-up system, feedback mechanism, appraisal mechanism, supervision checklist etc)																								
	Conduct 3 days review of the draft SOP for 10 participants in Freetown	Available draft SOP reviewed					x																DPPI/ NMCP	WHO, UNICEF, MRC, GF,UMC, MSF,PLAN, SLRC, & BRAC, CRS
	Organise a 1 day validation workshop on the draft SOP for 30 participants in Freetown	SOP validated					x																DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, & BRAC, CRS
	Print and distribute the finalised SOP to national and districts	1000 copies of SOP printed					x	x															DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, & BRAC, CRS
Print data collection tools for CCMm &IPTp																								
	Print data collection tools for CBPs on HMM	7000 copies				x																	DPPI/ NMCP	CARE, SAVE THE CHILDREN, IRC,MSF,MRC
	Print data collection tools for PHUs	7000 copies				x																	DPPI/ NMCP	CARE, SAVE THE CHILDREN, IRC,MSF,MRC
	Print data collection tools for TBAs on IPTp	7000 copies				x																	DPPI/ NMCP	CARE, SAVE THE CHILDREN, IRC,MSF,MRC

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Train M& E officers at all levels on data management process and analysis																								
	Conduct a 3 day orientation workshop for national M& E Officers	36 M&E Officers orientated at national level			x		x	x									x	x					NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Conduct a 3 day orientation workshop for Hospital M& E Officers/data collector	45 Hospital M& E Officers or data clerks orientated at district level						x										x					NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Conduct a 3 days orientation workshop for District M& E and Malaria Officers	45 District M& E and Malaria Officers orientated			x			x										x					NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Support short term training of M& E Officers	17 staff supported per year				x				x				x				x			x		MOHS	GF
	Support long term training of M& E officers	2 staff supported per year			x								x							x			MOHS	GF
Train health workers (district, PHU and community) on data collection ,reporting and use																								
	Conduct TOT at National Level	34 national staff trained	x				x								x								NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Conduct TOT at DHMT level	89 DHMT including partners trained		x			x								x								NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Organise PHU staff Training	2340 PHU staff trained			x		x				x				x				x				NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Organise PHU staff Training	2340 PHU staff trained			x		x				x				x				x				NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Organise Community Health Workers TRAINING	11,100 CBPs and TBAs trained		x				x				x				x				x			NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Organise training for Hospital staff (Private and public)	60 Hospital staff trained					x				x				x				x				NMCP/ DPPI/DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Organise training for Laboratory staff (Private and public)	60 Laboratory staff trained					x				x				x				x				NMCP/ DPPI/DHMT/	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, LAB SERVICES
Establish a functioning IT linkage between NMCP, DPPI, and other stakeholder (web based, data warehouse)																								
	Contract an IT consultancy firm to link the NMCP data base to National data warehouse	NMCP database linked to National data warehouse					x	x															DPPI	GF
	Train NMCP & DPPI Staff on the use of the data warehouse (5 NMCP, 4 DPPI staff)	9 staff trained					x								x								DPPI/ NMCP	-
Intensify Monitoring and Supervision from National to District level																								
	Conduct 10 days quarterly supportive supervision from National to Districts	Supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Organize quarterly monitoring of the data management system (i.e. reports) from national to districts	Monitoring report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Post market surveillance and Supervision on monitoring and recording of adverse reaction of ACT's and SP used in IPTp from central to district	Post market surveillance and supervision report available					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	PBSL/ NMCP/ DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
Strengthen regular monitoring and supportive supervision from district to the lower levels																								
	Monitoring and supportive supervision from district to PHUs (Monthly)	Monitoring and supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DHMT	MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS, IRC, CARE,
	Monitoring and supportive supervision from PHUs to community (Monthly)	Monitoring and supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DHMT	MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS, IRC, CARE
	Monitoring and supportive supervision from District to Hospitals(Private and Public) (Monthly)	Monitoring and supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DHMT	MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS, IRC, CARE
Develop and produce data collection tools for malaria surveillance in hospitals.																								
	Update data collection tools for confirmed malaria cases in Hospitals	Updated data collection tools available				x	x																DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, GF
	Develop data collection tools for Laboratory information	Data collection tools for Laboratory				x																	DPPI/NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC,

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	In hospitals,(Private and public)	information developed																					DPPI/NMCP	BRAC, CRS,PBSL, DPC, LAB SERVICES
	Print data collection tools for Laboratory information and confirmed malaria cases in hospitals,(Private and public)	250 Registers and 50 Summary books printed					x				x				x				x				DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, LAB SERVICES, GF
Develop and produce data collection tools for malaria surveillance in PHUs																								
	Update data collection tools for confirmed malaria cases in PHUs	Updated data collection tools available								x													DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, LAB SERVICES, GF
	Develop data collection tools for Laboratory information in PHUs.	Data collection tools for Laboratory information developed								x													DPPI/ NMCP/ DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, LAB SERVICES, GF
	Print data collection tools for Laboratory information and confirmed malaria cases in PHUs	2000 copies									x				x				x				DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, LAB SERVICES, GF
Improve the recording system of trainings organised and create a database of trained personnel.																								
	Develop a checklist for tracking trainings conducted for Health Workers	Tracking checklist developed					x																DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Create a database of personnel trained	Database created					x																DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
Upgrade data storage and management facilities at all levels																								
	Conduct need assessment for storage facility at all levels	Report of assessment available		x																			DPPI/ NMCP/ CMS	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC
	Procure the necessary items for storage facility	Necessary items: steel cabinets, IXL files , staple machine staple pins, Punch wooden shelves Hanging files procured						x															DPPI/ NMCP/ CMS	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF
	Distribution of storage items to Health Facilities	Storage items distributed to health facilities						x															NMCP/ CMS/DHMT	-
Strengthen the malaria surveillance system																								
	Conduct an orientation workshop for the private for profit and private for non profit Hospitals in the Western Area on the malaria treatment guideline, data collection, reporting and use (targeting Doctors / Head of the Institutions)	56 participants at National level oriented						x				x				x				x			DPPI/DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, GF

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Conduct an orientation workshop for the private for profit and private for non-profit Hospitals in the Districts on the malaria treatment guideline, data collection, reporting and use (targeting Doctors / Head of the Institutions)	66 participants at District level oriented						x				x				x				x			DPPI/DPC /NMCP /DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC, GF
	Organize a one day refresher training on malaria surveillance system including malaria treatment guideline, data collection, reporting and use (Targeting surveillance officers at National level)	14 participants at National level oriented						x								x							DPPI/DPC /NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, , GF
	Organise a one day refresher training on malaria surveillance system including malaria treatment guideline, data collection, reporting and use (Targeting surveillance officers at District level).	26 participants at District level oriented						x								x							DPPI/DPC /NMCP /DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF
	Produce quarterly malaria surveillance bulletin	300 copies produced quarterly			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPPI/DPC /NMCP /DHMT	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Produce Annual Report on Program Performance																								
	Develop draft program annual performance review (APR) and share with partners through email	Draft annual performance report developed and shared with partners					x				x				x				x				NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF
	Conduct a 3-day stakeholders workshop to review draft APR at national level	120 participants						x				x				x				x			NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF
	Finalise and Print Annual programme report (APR)	1000 copies printed						x				x				x				x			NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF
Conduct quarterly M&E sub-committee meeting																								
	Hold quarterly M&E Sub-committee meetings	15 participants	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Disseminate reports of M&E sub committee meetings,.	Reports of M&E sub committee meetings shared	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
Upgrade the malaria database																								
	Review and upgrade the current malaria database at National level (Targeting M&E focal points	Malaria database reviewed and updated					x				x				x				x				NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	and NMCP intervention focal points)																							
	Incorporate existing malaria strategic information into the upgraded database	Existing malaria strategic information incorporated					x				x				x				x				NMCP/ DPPI	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,GF
	Maintenance of ADR Data base and Internet connection						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	PBSL	-
Update and roll out service delivery points ID numbering system																								
	Provide the relevant stakeholders (eg. NMCP, DHMT) the information generated on ID numbering system of Health Facilities.	Information on ID numbering system of Health Facilities shared with stakeholders.				x	x																DPPI	-
Disseminate Program Data/report to the General Public																								
	Regular update of website for dissemination of Programme reports	Ensure that programme reports are disseminated through MOHs Website	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	MOHS/ DPPI	-
	Develop and Produce quarterly News Letters	250 copies of quarterly news letters produced					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF
	Provide Internet services at the NMCP	Internet services available at the NMCP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	MOHS/ NMCP	GF
	Conduct Press briefings	Press briefings conducted quarterly				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	MOHS/ NMCP	-

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Monitor and Supervise sentinel sites.																								
	Monitor and supervise the sentinel sites for antimalarial drug efficacy and safety of ongoing studies.	Monitor and supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP/ Lab Services	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL,, GF,
	Conduct monitoring and supervision of the IRS sentinel sites (from District to PHUs)	Monthly monitoring and supervision report available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP/ Lab Services/	WHO, UNICEF, MRC, SLRC, GF, Environmental. Dept.
	Conduct monitoring and supervision of the IRS sentinel sites (from national to District)	Quarterly monitoring and supervision report available.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP/ Lab Services/	WHO, UNICEF, MRC, SLRC, GF, Environmental. Dept.
Evaluation, Reviews, Survey and Operational research																								
	Review of National Malaria strategic plan	Mid and End term review report available											x									x	NMCP	WHO, UNICEF, MRC, UMC, MSF, PLAN, SLRC, BRAC, CRS, PBSL, DPC, GF,
	Conduct malaria programme review							x	x														NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct Malaria M&E systems strengthen review (Using MESST)												x										MOHS/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct data quality assessment						x				x				x				x				DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Conduct Health Facility Survey	Survey report available						x				x				x				x			DPPI/ SSL/NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct operational research on provision of Artesunate Suppositories	Study report available							x														DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct efficacy and safety studies on antimalarial medicines	Efficacy and safety conducted every two years		x								x								x			DPC/ NMCP/ Lab Services	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF,
	Conduct Anti-malarial adherence/compliance studies	Study report available								x									x				DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	TA: Antimalarial resistance studies	TA report available									x	x											DPC/ NMCP	WHO,MRC
	Support bio/chemical assay to study LLIN efficacy	Study report available				x		x		x		x		x		x		x		x		x	DPC/ NMCP	WHO,MRC
	Entomological Survey (vector behaviour and parasite capacity, etc.)	Survey report available										x		x		x		x		x		x	DPC/ NMCP	WHO,MRC
	Conduct Malaria KAP survey	Survey report available				x								x								x	SSL/ DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct Malaria Indicators survey (MIS)	Survey report available						x								x							SSL/ DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct household registration survey	Survey report available																x					SSL/ DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,
	Conduct community case management implementation survey	Survey report available				x									x								SSL/ DPPI/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, DPC,, GF,

No	Activity	Activity indicator/ Means of verification	2011				2012				2013				2014				2015				Responsible	Collaborating Partners
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	Develop malaria specific research agenda							x															DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF, Academic Institutions
	Conduct environmental assessment of breeding sites	Assessment report of pilot districts available.								x				x				x				x	DPC/ NMCP	WHO,MRC
Coordination of Partners																								
	Quarterly Working group meetings with Partners	Programme review meetings report available					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL,
	Organize RBM partners Meetings	Report of the monthly meetings available	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF
	Establish a network of Researchers in malaria	Comprehensive list of Researchers in malaria available						x															DPC/ NMCP	WHO, UNICEF, MRC, UMC, MSF,PLAN, SLRC, BRAC, CRS,PBSL, GF, Academic Institutions
Others (MOHS-PR ACTIVITIES)																								
	Monitoring and evaluation visits by PR				x	x	x	x	x	x	x	x											MOHS/ PR	-
	Quarterly Monitoring and Evaluation Missions				x	x	x	x	x	x	x	x											MOHS/ PR	-

3.9 M&E Activity Budget

Table 7: M&E Budget (USD)

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Finalize M&E Plan and Malaria Surveillance Frame work											
	Conduct a 2 day retreat to finalize the updated M&E Plan	2,168	0	0	0	0	2,168	GF	MESST	A two day retreat of 15 participants organized and M&E finalized	-
	Conduct a 3 day retreat to develop Surveillance M&E framework.	3,252	0	0	0	0	3,252	GF	MESST	A three day retreat of 15 participants organized and Malaria surveillance framework developed	-
	Organize a one day validation workshop for the M&E plan	0	3.614	0	0	0	3,614	GF	MESST	A one day validation workshop of 50 participant and M&E plan validated	-
	Organize a one day validation workshop for the surveillance framework,	0	3,614	0	0	0	3,614	GF	MESST	A one day validation workshop of 50 participants and Malaria surveillance framework validated	-
	Print and distribute copies of the finalised documents (M & E Plan)	0	3,500	0	0	0	3,500	GF	MESST	350 copies of M&E plan printed	-
	Print and distribute copies of the finalised document (surveillance Framework)	0	3,500	0	0	0	3,500	GF	MESST	350 copies of malaria surveillance framework printed	-
	Develop and print annual M&E operational plan	0	0	700	700	700	2100	GOSL/ Others	Others	100 copies of the M&E Operational plan printed	-
Assess M& E Capacity on data management at national and sub national levels											
	Conduct the assessment of M&E capacity	15,016	0	0	0	0	15,016	GF	MESST	Assessment of M&E capacity conducted	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Conduct a reassessment of M&E capacity.	0	0	15,016	0	0	15,016	GOSL/ Others	Other	Reassessment of M&E capacity conducted	-
Recruit M& E staff at national and sub national level											
	Recruit 4 M& E staff -NMCP,	72,000	72,000	72,000	72,000	72,000	360,000	GF R10	OTHER	Four M&E officers available	-
	Recruit 14 M& E staff -district,	42,000	42,000	42,000	42,000	42,000	210,000	HSS/ MOHS	MESST	14 M&E officers at USD 250/ month recruited and maintained	-
	Recruit 45 M& E staff or data clerks -Hospitals,	81,000	81,000	81,000	81,000	81,000	405,000	HSS/ MOHS	MESST	45 M& E staff or data clerks for 45 Hospitals at USD 150/month recruited and maintained	-
	Recruit one IT officer for NMCP office.	18000	18000	18,000	18,000	18,000	90,000	GF R10	Other	IT officer available	-
	Procure Desk top computer, lap top, printer and photocopiers - NMCP & DPPI	21,714	0	0	0	0	21,714	GF R10	MESST	6 desk tops, 2 lap tops, 2network printer, 2 photocopier procured for NMCP/DPPI	-
	Procure and distribute Desk top computer, printer and photocopiers - 13 Districts	0	32,500	0	0	0	32,500	GOSL/ Others	MESST	13desk tops, 13 lap tops, 13network printer, 13 photocopier procured	-
	Procure and distribute Desk top computer, printer and photocopiers - 13 Districts hospitals	0	32,500	0	0	0	32,500	GOSL/ Others	MESST	13 desk tops, 13network printer, 13 photocopier procured	-
Develop a training plan to address gaps on data management											
	Develop a training plan	2,400	0	0	0	0	2,400	GF	Other	A 2 day workshop of 10 participants and training plan developed	-
	Update the training plan	0	0	2,400	0	0	0	GOSL/ Others	Other	A 2 day workshop of 10 participants and training plan updated	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Review , finalize and disseminate the existing draft SOP(i.e. dealing with inconsistence, missing report, back-up system, feedback mechanism, appraisal mechanism, supervision checklist etc)											
	Conduct 3 days review of the draft SOP for 10 participants in Freetown	0	9,000	0	0	0	9,000	GF	MESST	A three day review meeting of 25 participants and SOP finalized	-
	Organize a 1 day validation workshop on the draft SOP for 30 participants in Freetown	0	3,600	0	0	0	3,600	GF	MESST	A one day validation meeting of 30 participant held and SOP validated	-
	Print and distribute the finalised SOP to national and districts	0	10,000	0	0	0	10,000	GF	MESST	1000 copies of SOPs printed	-
Print data collection tools for CCMm &IPTp											
	Print data collection tools for CBPs on HMM	5950	0	0	0	0	5950	GF	Other	850 copies of CBPs data collection tools printed	-
	Print data collection tools for PHUs	10,395	0	0	0	0	10,395	GF	Other	1,485 copies of PHU data collection tools printed	-
	Print data collection tools for TBAs on IPTp	3,605	0	0	0	0	3,605	GF	Other	515 copies of TBA's data collection tools printed	-
Train M& E officers at all levels on data management process and analysis											
	Conduct a 3 day orientation workshop for national M& E Officers	0	5,203	0	5,203	0	10,406	GF	MESST	36 M&E officers oriented at National level	Funds to be mobilized for the year 4 refresher workshop
	Conduct a 3 day orientation workshop for Hospital M& E Officers/data collector	0	3,252	0	3,252	0	6,504	GF	MESST	45 Hospital M&E officers/ Data clerks oriented at District level	Funds to be mobilized for the year 4 refresher workshop
	Conduct a 3 days orientation workshop for District M& E and Malaria Officers	0	3,252	0	3,252	0	6,504	GF	MESST	45 District M&E officers/ Malaria focal points oriented at District level	Funds to be mobilized for the year 4 refresher workshop

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Support short term training of M& E Officers	170,000	170,000	170,000	170,000	170,000	850,000	GF	Others	17 staff/ year (2 NMCP, 2DPPI and 13 district) trained offshore at USD10,000	Funds to be mobilized for the years 3, 4 and 5
	Support long term training of M& E officers	47,551	0	47,551	0	47,551	142,653	GF	Others	1 NMCP staff trained every two years in Epidemiology/ Entomology	-
Train Health Workers (District, PHU and Community) on Data Collection ,Reporting and Use											
	Conduct TOT at National Level	0	12,240	0	12,240	0	24,480	GOSL/ Others	MESST	34 National staff trained	Funds to be mobilized or implemented with other training activities
	Conduct TOT at DHMT level	0	13,350	0	13,350	0	26,700	GOSL/ Others	MESST	89 DHMT including partners trained	Funds to be mobilized or implemented with other training activities
	Organise PHU staff Training	0	351,000	0	351,000	0	702,000	GOSL/ Others	MESST	2340 PHU staff trained	Funds to be mobilized or implemented with other training activities
	Organise Community Health Workers training	0	267,399	0	267,399	0	534,798	GOSL/ Others	MESST	11,100 CBPS and TBAs trained for 3 days	Funds to be mobilized or implemented with other training activities
	Organise training for Hospital staff (Private and public)	0	3000	0	3000	0	6000	GOSL/ Others	MESST	60 Hospital staff trained	Funds to be mobilized or implemented with other training activities
	Organise training for Laboratory staff (Private and public)	0	4336	0	4336	0	8,672	GOSL/ Others	MESST	60 Laboratory staff trained	Funds to be mobilized or implemented with other training activities

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Establish a functioning IT linkage between NMCP, DPPI, and other stakeholder (web based, data warehouse)											
	Contract an IT consultancy firm to link the NMCP data base to National data warehouse	0	3291	0	0	0	3291	GF	MESST	NMCP database linked to the National data warehouse	-
	Train NMCP & DPPI Staff on the use of the data warehouse (5 NMCP, 4 DPPI staff)	0	90	0	90	0	180	GF	MESST	9 NMCP staff trained	-
Intensify Monitoring and Supervision from National to District Level											
	Conduct 10 days quarterly supportive supervision from National to Districts	56000	56000	56000	56000	56000	280000	GF	MESST	Quarterly supervision conducted by 20 staff for 10 days and reports available	-
	Organize quarterly monitoring of the data management system (i.e. reports) from national to districts	0	0	0	0	0	0	_	MESST	Quarterly monitoring reports available	This activity will be implemented during the quarterly supervision visits
	Post market surveillance and Supervision on monitoring and recording of adverse reaction of ACT's and SP used in IPT from central to district	0	18000	18000	18000	18000	72000	GF	MESST	Post market surveillance conducted quarterly and reports available	-
Strengthen Regular Monitoring and Supportive Supervision from District to the Lower Levels											
	Monitoring and supportive supervision from district to PHUs (Monthly)	84000	84000	84000	84000	84000	420,000	GF	MESST	Monthly supervision conducted by 70 staff for 5 days and reports available	-
	Monitoring and supportive supervision from PHUs to community (Monthly)	266400	266400	266400	266400	266400	1,332,000	GF	MESST	Monthly supervision conducted by 2220 PHU staff for 1 day and reports available	-
	Monitoring and supportive supervision from District to Hospitals(Private and Public) (Monthly)	5400	5400	5400	5400	5400	27,000	GF	MESST	Monthly supervision conducted by DHMT to 45 hospitals and reports available	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Develop and Produce Data Collection Tools for Malaria Surveillance in Hospitals.											
	Update data collection tools for confirmed malaria cases in Hospitals	0	4500	0	0	0	4500	GF	MESST	A three day workshop meeting of 30 participant held and data collection tools for confirmed malaria cases in hospital updated	-
	Develop data collection tools for Laboratory information in hospitals,(Private and public)	0	0	0	0	0	0	-	MESST	Data collection tools for Laboratory information developed	This activity will be implemented during the workshop to develop other data collection for hospitals
	Print data collection tools for Laboratory information and confirmed malaria cases in hospitals,(Private and public)	0	10,500	0	0	0	10,500	GF	MESST	500 Registers and 200 summary books printed	-
Develop and Produce Data Collection Tools for Malaria Surveillance in PHUs											
	Update data collection tools for confirmed malaria cases in PHUs	**0**	0	0	0	0	0	-	Others	Data collection tools for confirmed malaria cases for PHUs updated.	This activity will be implemented during the workshop to develop other data collection for hospitals
	Develop data collection tools for Laboratory information in PHUs.	0	0	0	0	0	0	-	Others	Data collection tools for Laboratory information developed	This activity will be implemented during the workshop to develop other data collection for hospitals
	Print data collection tools for Laboratory information and confirmed malaria cases in PHUs	0	0	14000	0	0	14,000	GOSL/ Others	Others	2000 Registers printed	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Improve the Recording System of Trainings Organised and Create a Database of Trained Personnel.											
	Develop a checklist for tracking trainings conducted for Health Workers	0	2,640	0	0	0	2,640	GF	MESST	Two day workshop conducted with 11 participants and checklist developed	-
	Create a database of personnel trained	0	0	0	0	0	0	-	MESST	Database for trained personnel available and updated regularly	-
Upgrade Data Storage and Management Facilities at All Levels											
	Conduct need assessment for storage facility at all levels	4,800	0	0	0	0	4800	GF	MESST	Assessment conducted and report available	-
	Procure the necessary items for storage facility	0	60,000	0	0	0	60,000	GOSL/ Others	MESST	Items such as steel cabinets , IXL files , staple machine, staple pins, Punch, wooden shelves and Hanging files provided to 1,110 PHUs	Funds to be mobilized
	Distribution of storage items to Health Facilities	0	2,070	0	0	0	2,070	GOSL/ Others	MESST	Storage items distributed	Funds to be mobilized .This will be done 3 staff for 3 days.

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Strengthen the Malaria Surveillance System											
	Conduct an orientation workshop for the private for profit and private for non-profit Hospitals in the Western Area on the malaria treatment guideline, data collection, reporting and use (targeting Doctors / Head of the Institutions)	0	4,047	4,047	4,047	4,047	16,188	GF	MESST	One day Orientation workshop conducted and capacity of 56 participants at National level enhanced in malaria surveillance	-
	Conduct an orientation workshop for the private for profit and private for non-profit Hospitals in the Districts on the malaria treatment guideline, data collection, reporting and use (targeting Doctors / Head of the Institutions)	0	4,770	4,770	4,770	4,770	19,080	GF	MESST	One day Orientation workshop conducted and capacity of 66 participants at district level enhanced in malaria surveillance	-
	Organize a one day refresher training on malaria surveillance system including malaria treatment guideline, data collection, reporting and use (Targeting surveillance officers at National level)	0	1,012	0	1.012	0	2,024	GF	MESST	One day refresher training conducted and capacity of 14 participants at National level enhanced in malaria surveillance	-
	Organise a one day refresher training on malaria surveillance system including malaria treatment guideline, data collection, reporting and use (Targeting surveillance officers at District level).	0	1,879	0	1,879	0	3,758	GF	MESST	One day refresher training conducted and capacity of 26 participants at district level enhanced in malaria surveillance	-
	Produce quarterly malaria surveillance bulletin	0	3000	3000	3000	3000	12,000	GF	MESST	300 copies printed	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Produce Annual Report on Program Performance											
	Develop draft program annual performance review (APR) and share with partners through email	0	0	0	0	0	0	-	MESST	Draft program annual performance review (APR) available and shared with partners .	The activitiy will be implemented during working session at NMCP
	Conduct a 3-day stakeholders workshop to review draft APR at national level	0	30,353	30,353	30,353	30,353	121,412	GOSL/ Others	MESST	Three day workshop conducted with 50 participants and APR finalized.	Funds availabe for two years and additional resources should be mobilized.
	Finalize and Print Annual programme report (APR)	0	7,000	7,000	7,000	7,000	28,000	GF	MESST	250 copies per annun printed	-
Conduct Quarterly M&E sub-Committee Meetings											
	Hold quarterly M&E Sub-committee meetings	600	600	600	600	600	3000	GF	MESST	A one day M&E sub committee meetings held with 15 participants quarterly	Additional resources will be mobilized for adhoc meetings
	Disseminate reports of M&E sub committee meetings,.	0	0	0	0	0	0	-	MESST	M&E subcommittee meeting reports shared eletronically	-
Upgrade the Malaria Database											
	Review and upgrade the current malaria database at National level (Targeting M&E focal points and NMCP intervention focal points)	130	130	130	130	130	650	GF	MESST	A one day meeting for 26 participants and malaria database reviewed and upgraded.	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Incorporate existing malaria strategic information into the upgraded database	0	0	0	0	0	0	-	MESST	Existing malaria strategic information incorperated into upgraged database	This will be implemented bi-annualy
	Maintenance of ADR Data base and Internet connection	0	2,850	2,850	2,850	2,850	11,400	GF	Others	ADR database and internet connection maintened	This will be implemented by the Pharmacy Board of Sierra Leone
Update and Roll Out Service Delivery Points ID Numbering System											
	Provide the relevant stakeholders (eg. NMCP, DHMT) the information generated on ID numbering system of Health Facilities**.**	0	0	0	0	0	0	-	MESST	ID numbering system of Health facilities shared with relevant stakeholders	This will be implemented in 2012
Disseminate Program Data/Report to the General Public											
	Regular update of website for dissemination of Programme reports	0	0	0	0	0	0	-	MESST	Programme reports uploaded on the website of the Ministry of Health and Sanitation	This will be done quarterly
	Develop and Produce quarterly News Letters	0	10,000	10,000	10,000	10,000	40,000	GF	MESST	1000 copies of the Quarterly news letter printed per annum	-
	Provide Internet services at the NMCP	1,545	1,545	1545	1545	1545	7725	-	Others	Internet services available at NMCP	-
	Conduct Press briefings	2000	2000	2000	2000	2000	10,000	GF	MESST	4 press briefings per year at national level for 50 people/session Conducted	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
Monitor and Supervise Sentinel Sites.											
	Monitor and supervise the sentinel sites for antimalarial drug efficacy and safety of ongoing studies.	13,820	13,820	13,820	13,820	13,820	69,100	GF	MESST	Sentinel site for antimalarial drug efficacy and safety studies monitored supervised and report available.	-
	Conduct monitoring and supervision of the IRS sentinel sites (from District to PHUs)	1,384	1,384	1,384	1,384	1,384	6,920	GF	MESST	The IRS sentinel sites monitored and supervised from district to PHU and reports available	-
	Conduct monitoring and supervision of the IRS sentinel sites (from national to District)	12,488	12,488	12,488	12,488	12,488	62,440	GF	MESST	The IRS sentinel sites monitored from National to District and reports available	-
Evaluation, Reviews, Survey and Operational research											
	Review of National Malaria strategic plan	0	0	8,740	0	8,740	17,488	GF	Others	A three day workshop of 40 participants organised and National strategic plan reviewed	Funds will be mobilized for a mid-term review and end- term evaluation of the SP. RBM Partners and representatives from the district will participate.
	Conduct malaria programme review	0	45,000	0	0	0	45,000	GOSL/ Others	Others	Comprehensive review of malaria control	-
	Conduct Malaria M&E systems strengthen review (Using MESST)	30,000	0	30,000	0	0	60,000	GOSL/ Others	Others	Actions identified to strengthen the M&E system for quality data	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Conduct data quality assessment	0	40,000	40,000	40,000	40,000	200,000	GOSL/ Others	Others	Data quality assessment conducted country wide	This will be conducted in the form of peer review of the districts
	Conduct Health Facility Survey	0	27,750	27,750	27,750	27,750	111,000	GF	Others	Health Facility Survey conducted and reports available	-
	Conduct operational research on provision of Artesunate Suppositories	0	20,600	0	0	0	20,600	GF	Others	Operational research on provision of Artesunate Suppositories conducted and reports available	-
	Conduct efficacy and safety studies on antimalarial medicines	60,000	0	60,000	0	60,000	180,000	GF	MESST	Efficacy and safety studies on antimalarial medicines conducted and reports available	-
	Conduct Anti-malarial adherence/compliance studies	0	20,600	0	0	20,600	41,200	GF	Others	Anti-malarial adherence/compliance studies conducted and reports available	-
	TA: Antimalarial resistance studies	0	0	132,685	0	0	132,685	GF	Others	TA for antimalarial resistance studies provided and report available.	-
	Support bio/chemical assay to study LLIN efficacy	58,416	58,416	58,416	58,416	58,416	292,080	GF	Others	LLIN efficacy study conducted and report available	-

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Entomological Survey (vector behaviour and parasite capacity, etc..)	0	0	30,000	30,000	30,000	90,000	GF	Others	Entomological Survey for vector behaviour and parasite capacity conducted and report available	-
	Conduct Malaria KAP survey	65,000	0	70,000	0	75,000	210,000	GF	others	KAP study conducted	This activity will be conducted under R 10 grant by CRS
	Conduct Malaria Indicators survey (MIS)	0	80,000	0	80,000	0	160,000	GF	Others	MIS conducted and report available	This activity will be conducted under R 10 grant by CRS
	Conduct household registration survey	0	0	0	0	0	0	-	Others	Information of the number of household in each district available	This information will be requested from Statistics Sierra Leone . If not available it will be incorporated in the LLIN campaign budget.
	Conduct community case management implementation survey	15,000	0	0	15,000	0	30,000	GOSL/ Others	Others	Community case management survey conducted and report available	Funds to be mobilized
	Develop malaria specific research agenda	0	3,635	0	0	0	3,635	GOSL/ Others	Others	A two workshop of 25 participant to establish a network of researchers in Malaria and a research agenda developed	Funds to be mobilized

	Activity	2011	2012	2013	2014	2015	TOTAL	Source of funding	Link with MESST Action Plan or Other Recommendations	Expected Outcome	COMMENTS
	Conduct environmental assessment of breeding sites	0	12,000	12,000	12,000	12,000	48,000	GOSL/ Others	Others	Environmental assessment of selected breeding sites conducted and report available	Funds to be mobilized
Coordination of Partners											
	Quarterly Working group meetings with Partners	0	1,000	1,000	1,000	1,000	4,000	GOSL/ Others	Others	Review of implementation plans and make recommendations on critical issues with regards to malaria Prevention and control activities.	Funds to be mobilized
	Organize RBM partners Meetings	6,180	6,180	6,180	6,180	6,180	30,900	GF	Others	RBM partners meetings held and report available	-
	Establish a network of Researchers in malaria	0	0	0	0	0	0	-	Others	Network of researchers established	This activity will be carry out during a meeting of researchers to develop a malaria research agenda
Others (MOHS-PR ACTIVITIES)											
	Monitoring and evaluation visits by PR	18,480	18,480	18,480	18,480	18,480	92,400	GF	Others	Quarterly monitoring and evaluation visits conducted	-
	Quarterly Monitoring and Evaluation Missions	57,400	57,400	57,400	57,400	57,400	287,000	GF	Others	Quarterly monitoring and Evaluation mission conducted	-

Appendices to the M & E Plan

Appendix 1: Malaria Programme Annual Operational plans

Appendix 2: . Routine Data Collection Tools

Appendix 3: Additional indicators

Appendix 4: Detailed budget (an Excel sheet with detailed calculations that is available)

Appendix 5: Description of surveys e.g. MIS, Health Facility Surveys

Appendix 6: Findings of the Malaria M&E Systems Strengthen Assessment using MESST

Appendix 7: **SOP** (i.e. dealing with inconsistence, missing report, back-up system, feedback mechanism, appraisal Mechanism, supervision checklist etc)

References

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