FEDERAL MINISTRY OF HEALTH

Monitoring and Evaluation Plan for Malaria Control in Nigeria

2009

SEPTEMBER, 2009

NATIONAL MALARIA CONTROL PROGRAMME, ABUJA.

Table of Contents

List of Figures

List of Tables

FOREWORD

Nigeria faces a promising future with regard to malaria control and the reduction of the ill-health and death caused by malaria. My Ministry has tirelessly worked on developing a National Monitoring and Evaluation Plan that describes malaria control activities and its implementation. This is consistent with our vision to improve life expectancy and change the course of health care provision through a focus on outcome and impact related achievements. The M&E plan is all encompassing and is expected that all players in malaria prevention and control will buy into this document. This will ensure that all our inputs, processes and outputs are monitored as well as evaluating outcomes and impacts of the programme.

Malaria can be classified as the first of the conditions causing most illness and death in the country. This is apart from the leading condition in the areas of child health and reproductive and maternal health. Furthermore, malaria effects have negatively impacted on different demographic and socio-economic groups. For instance, under five children and pregnant women are known to be relatively more adversely affected as demonstrated by the estimates that 11% of maternal related mortality is due to malaria in pregnant women. This contributes to the relatively high MMR in the country. Currently, there are, at least 30% more deaths of Under Five children than there ought to be due to malaria. These trends are of more than major concern and burden to the Government and the Nigerian population at large.

Through the concerted efforts of Government and RBM Partners the resources' landscape has changed for the better. In particular, since 2005, the resource situation has improved significantly. The National Monitoring and Evaluation Plan (NMEP) will ensure that the efforts of NMCP and its Partners are well coordinated to improving the implementation of malaria control activities which will lead to the achievement of RBM Goal and Millennium Development Goals (MDGs)

The NMEP will pay particular attention to the use of proven interventions coupled with necessary process initiatives within the local context that will ensure and assure success. The success of the programme is based on the following principles:

- Access to effective case management, rapid scale up or expansion of all relevant and proven interventions.
    - Key interventions involved included, effective case management,
    - Distribution of Insecticide Treated Nets, IPT with SP for pregnant women
    - Indoor Residual Spraying where applicable,
- Universal access to the relevant interventions
- Ensuring equity through a community based approach and focus on hard to reach communities.
- Access to all malaria interventions should be treated as public health good

The coverage of the programme as mentioned will be through-out the country and interventions will be based on relevance, cost-effectiveness and local context and environment. All the activities will be monitored continuously while the coverage will be evaluated periodically by NMCP and its Partners.

I wish to take this opportunity to thank all our Partners and other Stakeholders, and assure the General Public that Government is determined to bring general improvements in health care services and ultimately improve their health status.

Professor Babatunde Osotimehin, OON

Honourable Minister of Health

ACKNOWLEDGEMENT

The National Malaria Control Programme wishes to acknowledge the commitments of the Honourable Minister of Health, Prof. Babatunde Osotimehin, Honourable Minister of State for Health, Dr. Aliyu Idi Hong, Permanent Secretary, Alhaji Garba Buwai, Director of Pubic Health, Dr. J. Jiya and the M&E Technical Working Group for their hard work during the development of the National Monitoring and Evaluation Plan for Malaria Control in Nigeria.

We appreciate our partners who supported us both technically and financially - GFATM, WHO, World Bank UNICEF, USAID, DFID, SuNMaP, ENHANSE Project, SFH, YGC, FHI, NetMark, NGOs among others.

Dr. T. O. Sofola

National Coordinator,

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Executive Summary

Prior to the development of the National Monitoring and Evaluation Plan (NMEP), SWOT analysis of M&E component of the programme was done which revealed areas of strengths and weaknesses. These formed part of the basis for Development of the plan.

The National M&E Plan (NMEP) for the National Malaria Control Programme in Nigeria provides a road map for overall monitoring and evaluation of the revised National Strategic Plan for Malaria control in Nigeria (2009 – 2013), which harmonizes malaria prevention and care across States, partner organizations, and funding mechanisms. It draws from the existing National Framework for Monitoring and Evaluation of Malaria Control in Nigeria, which was designed in conjunction with the HMIS unit of the FMOH and other stakeholders including representatives of the National Bureau of Statistics (NBS). This plan feeds into the existing National Health Management Information System and also has linkages with the Integrated Disease Surveillance Response system.

It describes in detail all Malaria Control interventions and summarizes the Goal, Objectives, Targets, Activities and Indicators of the National Malaria Control Strategic Plan (NMCSP). The NMEP also highlights three main Service Delivery Areas (SDAs) as well as Indicator Matrix, describing the minimum set of indicators; Input, Process, Output, Outcome and Impact to guide implementation.

The data collection strategies for M&E in malaria control, implementation and coordination of M&E activities which takes into account the NMCP and its Partners are well described. Methods for data collection, collation and transmission in both public and private sectors are fully described and graphically illustrated. Data quality assurance system to check the homogeneity, completeness, coherence, reliability and accuracy of data generated from all identified sources is also described.

Finally, action plan and budget for NMEP have been developed and provided for in the NMEP. Description of core malaria indicators and how they will be measured are also provided.

ACRONYMS

ACT	Artemisinin-Based Combination Therapy
CBO	Community Based Organization
CCM	Country Coordination Mechanism
CSO	Civil Society Organization
FCT	Federal Capital Territory
FMoH	Federal Ministry of Health
GF	Global Fund
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HF	Health Facility
IDSR	Integrated Disease Surveillance Response
IPT	Intermittent Preventive Treatment
ITNs	Insecticide Treated Nets
LLINs	Long Lasting Insecticide Treated Nets
LGA	Local Government Area
M&E	Monitoring and Evaluation
M&ETWG	Monitoring and Evaluation Technical Working Group
NGO	Non-Governmental Organization
NHMIS	National Health Management Information System
NMEP	National Monitoring and Evaluation Plan
NMCP	National Malaria Control Programme
PMC	Project Management Committee

PR	Principal Recipient
PSM	Procurement and Supply Chain Management
RBM	Roll Back Malaria
RMM	Role Model Mothers
SFH	Society for Family Health
SP	Sulphadoxine-Pyrimethamine
SR	Sub Récipient
USG	United States Government
WHO	World Health Organization
YGC	Yakubu Gowon Centre

1 Background and Introduction

1..1 Preamble

Disease control as well as other health and development programmes has become result based. An effective Monitoring and Evaluation strategy is needed to measure adequacy and timeliness of inputs, progress, assessment, ensuring achievements of set objectives. It provides sound evidence for decision making at programme and policy levels. Programmes/projects at all levels of implementation, whether they consist of multiple integrated projects or single interventions including public and private sectors, must conduct monitoring and evaluation (M&E) activities. The National Strategic Plan for Malaria Control in Nigeria (NMSP), 2006 – 2010, which was recently updated to 2009-2013, provides for massive scaling up of interventions for impact (SUFI). This is geared towards achieving the set targets by the end of 2010 with a view of sustaining the gains to 2013 and beyond. Owing to such massive deployment of effective interventions, it is expected that the epidemiologic profile of malaria in the country will change.

In addition to the expected improvement that SUFI activities will bring to bear on malaria epidemiologic profile, the huge cost implications involved, the limited available resources, coupled with the enormous pressure to meet set targets within limited-time spans puts a prerogative on sound monitoring and periodic evaluation. This is crucial for identifying gaps in programme implementation or areas where modifications in specific technical strategies may be needed, where resources should be channelled, assessing progress or otherwise and providing feedback to inform future planning.

1..2 Malaria Situation and Epidemiology

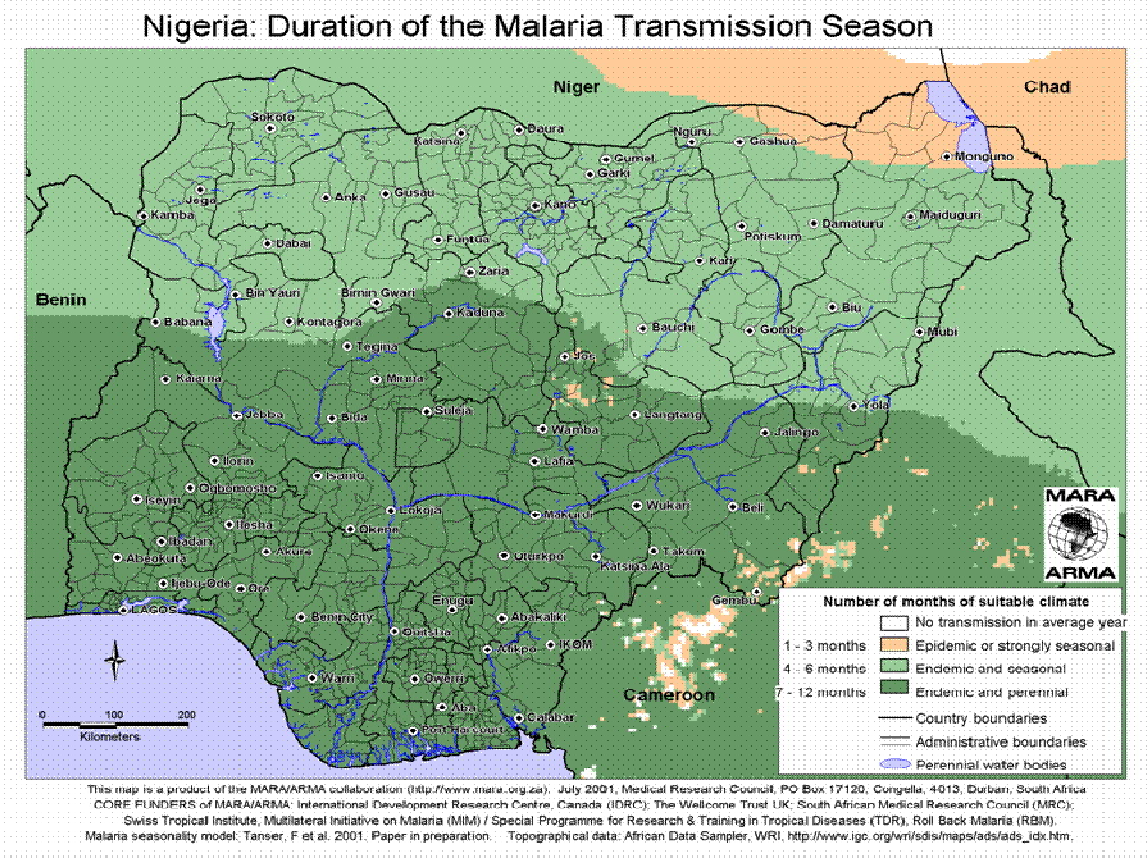
Malaria is endemic in Nigeria with 97% of the population at risk of infection sparing Sahel regions and the high mountainous area of the plateau. Nigeria contributes a quarter of the African malaria burden.

The five ecological strata from South to North define vector species dominance, seasonality and intensity of malaria transmission: mangrove swamps, rain forest, guinea-, sudan- and sahel-savannah. The duration of the transmission season decreases from South to North (Figure 1) from perennial in most of the South to only 3 months or less in the border region with Chad/Niger.

Transmission of malaria is stable in most parts of the country. In the northern part of the country, transmission is highly intense during the short wet season as compared with the low transmission during the long dry season. In the southern part of the country, transmission is intense, stable and uniform throughout the year. Overall, malaria is holo-endemic in most parts of the country.

Malaria accounts for 300,000 annual deaths and 11% of maternal mortality. Recent studies indicate 17% prevalence of malaria at parturition, 5.1% incidence of congenital malaria. Malaria also results in lower mean maternal haematocrit and 10% incidence of low birth weight. *(Falade & Mokuolu et al).* In children malaria is responsible for 25% of all infant-related mortality and 30% of child-related mortality.

Figure 1: Nigeria- Duration of the Malaria Transmission Season



This map is a product of the MARA/ARMA collaboration (http://www.mara.org.za). July 2001, Medical Research Council, PO Box 17120, Congella, 4013, Durban, South Africa
CORE FUNDERS of MARA/ARMA: International Development Research Centre, Canada (IDRC); The Wellcome Trust UK; South African Medical Research Council (MRC);
Swiss Tropical Institute, Multilateral Initiative on Malaria (MIM) / Special Programme for Research & Training in Tropical Diseases (TDR), Roll Back Malaria (RBM).
Malaria seasonality model: Tanser, F et al. 2001. Paper in preparation. Topographical data: African Data Sampler, WRI, http://www.igc.org/wri/sdis/maps/ads/ads_idx.htm.

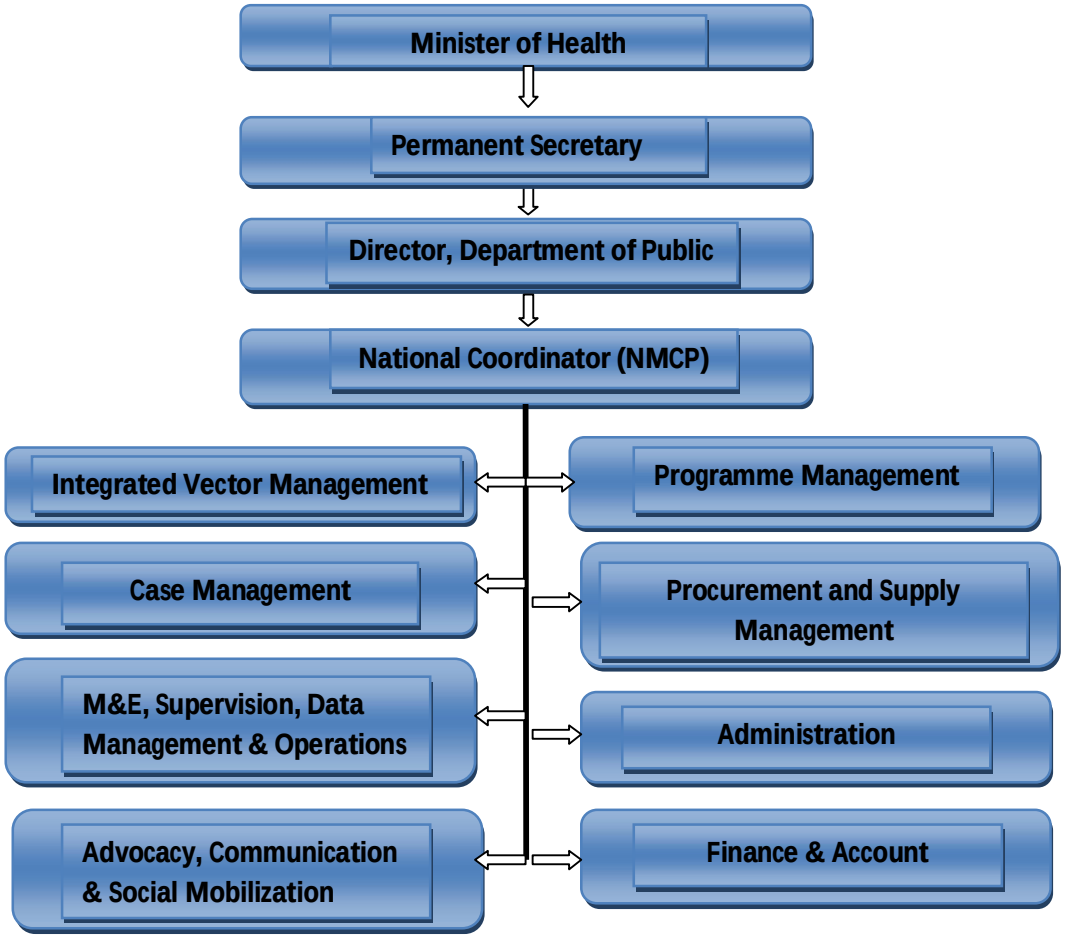
1..3 National Malaria Control Program (NMCP)

The Nigeria Malaria Control Programme is domiciled in the National Malaria and Vector Control Division, which is a division in the Department of Public Health of the Federal Ministry of Health Nigeria. As a national programme, it encompasses malaria control activities at federal, state, local government and community levels. Other control activities by partners, institutions and private/commercial stakeholders are under the coordination of the national programme.

The mandate of the national malaria and vector control division is to bring malaria under control to a point that it no longer constitutes a public health problem in the country. It is expected to ensure that universal access to malaria prevention as well as treatment is effectively coordinated.

Strategically, NMCP facilitates policy formulation, development of guidelines; provides technical support to implementing bodies including states, LGAs and stakeholders; mobilizes resources, monitors and evaluates progress and results in malaria control efforts. The chart below (Fig. 2) describes the organizational structure of NMCP.

Figure 2: Organogram for National Malaria Control Programme



1..4 Key Areas of Work

- Provision of effective case management with Artemisinin-based Combination Therapies (ACTs)
- Provision of long lasting insecticide treated nets (LLINs) for all populations at risk for prevention of malaria with complementary Indoor Residual Spraying (IRS) where applicable.
- Provision of intermittent preventive treatment with Sulphadoxine-Pyrimethamine (SP) to pregnant women for prevention of malaria in pregnancy
- Effective communication for behavior change, advocacy and social mobilization
- Monitoring and evaluation, including operational research
- Programme strengthening and coordination of partnership.

1..5 Malaria Control Interventions

The revised National Malaria Strategic Plan (NMSP), done through a process of stakeholder consultation at all levels, outlines national interventions with an achievement level of 80% coverage as a minimum in all delivery channels of the key control interventions by 2013. The key elements of the strategic plans are:

- ***Prevention:*** Integrated vector management comprising Long-Lasting insecticidal Nets (LLINs), In-door Residual Spraying (IRS) and small scale larviciding. Intermittent preventive treatment (IPT) using Sulfadoxine-pyrimethamine is used for prevention of malaria in pregnancy
- ***Treatment:*** Case management focuses on prompt and effective treatment using ACTs, home management of malaria (HMM) and the rollout of diagnosis (Microscopy and RDT)
- ***Support strategies:*** Advocacy, communication and social mobilization, Behavioural change communication, procurement and supply chain management, monitoring and evaluation, operational research, health systems development and strengthening and partnership.

1..6 Summary of the goals, objectives and targets of the NMSP

The ***goal*** of the malaria control strategy is

- To reduce malaria related morbidity and mortality in Nigeria and minimize the socio-economic impact of the disease.

Overall ***objectives*** for the period 2009 – 2013 are

- To nationally scale up for impact (SUFI) a package of interventions which include appropriate measures to promote positive behaviour change and to prevent and treat malaria
- To sustain and consolidate these efforts in the context of a strengthened health system and create the basis for the future elimination of malaria in the country

The National Malaria Control Strategic plan aimed at attaining the following major ***targets*** for malaria control during the five year period:

- Reduction of malaria related mortality by 50% by the year 2010 compared to 2000 translating into a child mortality rate reduction from 207/1,000 live births to 176/1,000 in 2010 and 158/1,000 in 2013.
- Reduction of malaria parasite prevalence in children less than 5 years of age by 50% by the year 2013 compared to baseline of 38% in 2007.
- At least 80% of households with two or more ITN/LLIN (one net to two people) by 2010 and sustained at this level until 2013.
- Achieve at least 80% of children less than 5 years of age and currently pregnant women sleeping under ITN by 2010 and sustain coverage thereafter
- To introduce and scale up IRS to 8% household coverage in selected areas by 2010 and 20% by 2013 as a complementary strategy to ITN and ensuring at least 85% of targeted structures are sprayed in adequate quality.
- At least 80% of fever patients attending health facilities receive a diagnostic test by 2013.

- At least 80% of fever / malaria patients receive appropriate and timely treatment according to national treatment guidelines by 2013
- At least 80% of pregnant women attending ANC services and 50% of all pregnant women should receive at least two doses of IPT by 2010 and these rates increase by 2013 to 100% and 75% respectively.

1..7 Background to Development of Monitoring and Evaluation Plan: SWOT Analysis of the M&E Component:

A recent analysis of the Strengths, Weakness, Opportunities and Threats of the M&E component of the national malaria control program revealed an increasing capacity in terms of tools and guidelines updating, training, supportive supervision and coordination. However much capacity building and responsiveness is desired in data management at sub-national levels (see Table 1 for details). This exercise showed the need for the finalisation of the M&E Framework and the completion of a detailed M&E Plan

Table 1: SWOT Analysis of the M&E component

STRENGTHS	WEAKNESSES
Management Unit Capabilities	
Management Unit has a well documented organisational structure	No written procedure to address late, incomplete or absence of reports from reporting sub entities (no formal mechanism to address accountability)
Relevant trained and trainable staff available and can be mobilized	Data not used for decision making process at the local level
Data collection, tools, mechanisms and	Weak linkage between National M & E and NHMIS (exchange of data between partners and

documented procedures in place	the national M & E and NHMIS Units)
Data movement systems between the various levels available	National M & E system does not capture data from most of the private health facilities
Effective supervision of sub reporting entities	Multiple forms for data collection at the facility level and lack of personnel to put the data together
Supporting agencies for funding and technical assistance available	Inadequate funding and political will for M & E
National Framework for M&E	
There is a National Malaria Control Strategy is in place	Raw malaria data mostly collected but not often analyzed, disaggregated by sex and socio-economic status and disseminated
There is a National M & E framework for malaria with program goals and objectives clearly stated	
Data Reporting Systems	
There is standardized tools for data management at service points	Poor system for reporting number of people reached at the community level
Availability of service delivery points even at remote areas where data could be generated.	Poor system for reporting commodities distributed

Standardized training procedures that met international standards	Personnel to manage data at the peripheral level are not well trained, not motivated
Existing channel of reporting is well defined from HF- National	Service points not identified with ID Nos and streamlined nationally.
	Non computerization of data management at health facility
	Poor data feedback mechanism
	Private sector data incorporation is presently ill defined.
	Poor central coordination of training programs

The M&E Plan for the National Malaria Control Programme in Nigeria provides a road map for overall monitoring and evaluation of the revised National Strategic Plan for Malaria control in Nigeria (2009 – 2013), which harmonizes malaria prevention and care across States, partner organizations, and funding mechanisms. It draws from the existing National Framework for Monitoring and Evaluation of Malaria Control in Nigeria, which was designed in conjunction with the HMIS unit of the FMOH and other stakeholders including representatives of the National Bureau of Statistics (NBS). This plan feeds into the existing National Health Management Information System and also has linkages with the Integrated Disease Surveillance Response system

1..8 Process of developing the Malaria M&E Plan:

Figure 3: Process of developing the Malaria M&E Plan

Step 1: Constitution of M&E Working Group

NMCP has an existing M&E working group comprising of technical partners, research institutions, representatives of DHPR and Epidemiology unit. This working group took the lead in the development of the draft plan.

Step 2: Review of Existing Malaria Control Plans and Projects

The Malaria Strategic Plan and work plans of the government and donor-funded projects, World Bank Booster Project, GF grant, DFID project and MDG project were reviewed to ascertain the targets, goals, objectives, activities and indicators.

a) A SWOT analysis of the M&E system was conducted using the GF M&E system strengthening tool to identify gaps in the Management Unit Capabilities, Data Reporting Systems and the National M&E framework for malaria control. See SWOT table below (Table 1)

Step 3: Identification and prioritization of M&E questions and indicators

Programme goals, objectives, targets and corresponding indicators were identified at the different levels of implementation.

Step 4: Selection of indicators and development of an M&E matrix

a) Globally and regionally agreed indicators already in the NMSP were integrated.

b) Based on the indicators selected, an M&E matrix was developed to determine a minimum set of indicators.

Step 5: Development of an M&E Work plan

Based on the above matrix, a detailed M&E work plan specifying the activities, means of verification, defining responsibilities, the time-frame and budget was then developed.

Step 6: Consensus Meeting

This draft M&E plan once finalized will be shared with key stakeholders in order to

- Develop consensus on the M&E approach,
- Elicit commitments for the M&E plan
- Adopt it as an official approach to M&E of the Malaria Strategic Plan implementation by all national level partners.

2. Overview of National Malaria Monitoring and Evaluation Plan

2.1 Goals and objectives of the National Malaria M&E plan

The National M&E plan is expected to provide a guide for monitoring and evaluation of the strategic plan which encourages implementers to focus on intended programme results. It shall serve as a tool for early identification of gaps and potential implementation bottlenecks, provide a basis for adjustments and reprogramming for improved outcomes. Finally, it is expected to generate necessary information for justification of utilized resources for malaria control activities.

2.2 General Objective of M&E

To establish a sound and continuously updated database that monitors progress towards agreed targets, evaluates outcomes and impact, and is used to effectively manage and adjust interventions based on evidence.

- **Specific objectives**
    - To improve collection, quality and utilization of routine data to monitor the implementation of malaria related interventions through the Health Management Information System
    - To periodically evaluate the progress of malaria control with respect to outcome and impact indicators through appropriate data collections processes including Malaria Indicator Surveys, sentinel sites and data from the private sector.
    - To strengthen links between the research community and RBM partnership in order to ensure that ongoing research is oriented towards the key operational questions and can provide the necessary evidence to continuously improve interventions for malaria control.

2.3 Framework for Monitoring and Evaluating the National Malaria Strategic Plan

The National Malaria Control M&E framework is based on the global strategy of the three-ones: One Plan, One Coordination mechanism and One Monitoring and Evaluation.

It depicts the relationships between activities, indicators, targets, data collection and reporting system as well as timelines. The framework is flexible and it was designed to accommodate shifting priorities over time. It defines a minimal set of indicators to report on, the tools to use, frequency of data collection, sources of data and the mechanism of sourcing data.

If properly applied, the framework is expected to initiate discussions about progress and emerging issues, inform the need for change, and increase the capacity of collaborative efforts amongst stakeholders.

The goal of the framework is to identify indicators to assess disease burden, track process, measure coverage and utilization, document trends and inform decision making.

The Specific objectives are to Collect, Collate, Analyze, Report and Use data as well as Advocate, Plan, Coordinate, Report, Disseminate and Promote Utilization of information.

2.4 NMCP M&E Strategies

2.4.1.1 To ensure adequate conceptualization & implementation of harmonized M&E plans:

- NMCP will ensure that all the M&E indicators, data sources, baselines, targets, data collection activities and timeframe are adhered to as stated in the M&E Plan
- NMCP will collaborate with all Partners to define their own M&E Plan that will synchronize with the National M&E plan
- NMCP will ensure that definitions of M&E concepts and contents are similar across stakeholders.

2.4.1.2 To facilitate the implementation of the three-ones principle on M&E:

"One agreed country level Monitoring and Evaluation System" is a component of three ones principle. In view of this, the NMCP will therefore:

- Ensure that M&E Plans are consistent with national M&E requirements;
- Facilitate the collection of additional M&E information needed by relevant national bodies;
- Collaborate with relevant national and state bodies on M&E issues and seek for the harmonization of M&E activities countrywide;
- Support the process of the development, review and implementation of National M&E workplans as the need arises.

2.4.1.3 To ensure adequate utilization of the results from M&E activities to improve implementation of identified activities:

- NMCP will document and disseminate to relevant partners (national, state and local) the lessons learned from the malaria control program activities;
- NMCP will, in collaboration with Partners, use a standardized and participatory methodology to monitor, assess and improve performance in both public and private sectors.

2.4.1.4 To ensure sustainability of the M&E efforts:

- NMCP will use capacity building (including orientation workshops, refresher in-service trainings, on-the-job trainings, and introduction to new tools and technologies) to strengthen local capacities on M&E;
- NMCP will ensure that monitoring and evaluation tools are developed with the participation of all stakeholders

2.4.1.5 Operational definitions

2.4.1.5.1 Monitoring:

This is defined as the routine process of data collection and measurement of progress towards project/programme objectives. Monitoring answers such questions as: "To what extent are planned activities implemented?" "What services are provided and how much is provided?" "How well are services provided and who is reached?"

Monitoring involves tracking inputs, processes and outputs.

- ***Inputs:*** the various resources needed to run the program, e.g. money, facilities, program staff, supplies and equipment, etc.
- ***Process:*** the set of activities in which program resources (human and financial) are used to achieve the results expected from the program e.g. number of training course conducted, BCC materials developed and disseminated, etc.
- ***Outputs:*** the immediate results obtained by the program through the execution of activities, e.g., the number of people trained, the number of clients counselled/ recruited, the number of clients treated.

2.4.1.5.2 Evaluation

Evaluation is the application of social research methods to systematically investigate a program's effectiveness. It involves measuring outcomes and impact often through baseline and follow-up assessment methodologies.

- ***Outcome*** refers to the changes in knowledge, attitudes, practices/behaviours, etc. that result from exposure to program activities. Outcomes are usually measured at the population level among the program's target populations. Changes that occur quickly in response to a program and that contribute to the program's desired ultimate or end results are called **short-term outcomes**. Examples include increased use of LLIN. **Long-term outcomes** refer to the end or ultimate results sought, as envisioned in the Malaria Control Strategic plan
- ***Impact*** refers to outcomes, either short- or long-term that can be attributed to a given program.

2.5 Service Delivery Areas

This plan has three main delivery areas;

- Strengthening routine data generation and flow (data collection, analysis, reporting, dissemination, provision of feedback and promoting data utilization) from public/private facilities and communities to the National Health Management Information System (NHMIS).
- Strengthening data generation and sharing from periodic surveys
- Ensuring new strategies for programme implementation are based on sound evidence (operational and implementation research) and Strengthening M&E Secretariat

2.6 Indicator Matrix

The indicator matrix is a minimum set of indicators; impact, outcome, output, process and input to guide implementation, which is described in Appendix 2. It also highlights the source of data, frequency of data collection and who will be responsible for the activity. There are some data capturing tools currently in use. They include the following:

- Commodity utilization tools
- Supervisory checklist
- Surveillance data tool
- Health Facility assessment tool
- Community Survey tool

2.6.1.1 Data Collection Strategy for M&E in Malaria Control

The data collection strategies to be employed in this plan include routine data generation, surveys and other complementary methods.

2.6.1.1.1 Routine Surveillance (Health Information System)

Routine data capturing system will include data generation through sentinel surveillance systems, integrated disease surveillance and response for monthly capturing of malaria morbidity and mortality, collation of monthly commodity utilization reports from sub-national levels, programme activity monitoring e.g. ITN distribution, quarterly supervisory visits to states and IRS monitoring.

2.6.1.1.2 Surveys

Impact and outcome indicators will be indicators will be measured by health facility and household, population-based surveys. These will include:

Demographic and Health Surveys:

These are nationally representative surveys that are routinely undertaken in many countries of SSA every 4-5 years to collect data on a wide variety of demographic and health indicators. Importantly, the DHS surveys are designed to produce data that are comparable over time and among countries.

Malaria Indicator Survey (MIS):

RBM Partners have developed standard MIS survey package for assessing the key household coverage indicators. This includes a core questionnaire and data tabulation plan, as well as related materials for organizing and conducting fieldwork. This stand-alone survey is designed to be implemented in a similar manner to the DHS surveys. The MIS survey will also produce a wide range of data for in-depth assessment of the malaria situation within countries. It is designed to be shorter, less expensive, and quicker to implement than many of the more comprehensive national survey efforts.

Health facility Assessment

Assessment of the clinical skills of health care staff, as well as an assessment of the available supplies and equipment at the health facility using standard instrument developed by IMCI can be done with a focus on the RBM indicators. However, because the application of the method requires special skills and the fact that it cannot be done in every facility, it may be combined with community-based surveys and if simplified further, can be done as part of routine supervisory visits.

Multiple Indicator Cluster Surveys:

The MICS surveys are nationally representative, population-based sample surveys developed by UNICEF and its partners. The MICS surveys are conducted in rounds approximately every 5 years in some 70 countries. Importantly, the MICS surveys are designed to produce data that are comparable over time and among countries. The surveys include a specific questionnaire module for assessing coverage of antimalarial treatment among febrile children and ITN use among all children. A separate section also collects information on antimalarial use in pregnancy. However, the MICS surveys do not typically obtain current pregnancy status, so the indicator on bednet use during pregnancy cannot be calculated.

2.6.1.1.3 Other complimentary methods

Considering the massive scale up of ACTs and LLINs during the period of this strategic plan, data will be generated from periodic insecticide and drug resistance monitoring as well as commercial sector surveys. Drug efficacy studies will also be conducted at the 14 sentinel sites biannually.

Also, in collaboration with NAFDAC, data will be generated through active surveillance of first line anti-malarials -Artemether-Lumefantrine and Artesunate+Amodiaquine and other special studies.

3 Implementation and Coordination of M&E Activities

3.1.1 Implementation Arrangement

The Monitoring and Evaluation (M&E) plan describes the activities and data required to determine the extent to which the desired objectives are attained. In this regard, it describes the data recording and reporting roles at each level for each partner, the tools for

collecting and reporting the data and the schedule of activities. Furthermore, the plan highlights NMCP M&E strategies, the roles and responsibilities of Partners, Quality Management Systems and how evaluation results will be disseminated.

The NMCP plans to implement rigorous M&E activities which will facilitate decision-making process. The M&E plan is therefore tailored to accomplish this as well as simultaneously respond to the information needs of different partners directing efforts to meeting national needs. The M&E branch of NMCP will work closely with NHMIS and other stakeholders, including NGOs and the private sector to avoid duplication of efforts by harmonizing data collection formats.

3.1.2 Coordination of Malaria M&E

3.2:1 Composition

Coordination of all M&E activities for NMCP is carried out by the Monitoring and Evaluation Technical Working Group.

The M&E TWG shall have membership drawn from the NMCP, research institution and the academia, principal recipients, Sub recipients, development partners, the private sector, line ministries, parastatals and NGOs. See appendix xx for full composition

3.2:2 Objective of the M&E technical working group

The objective of the TWG is to guide and support the implementation of the M&E component of the Country Strategic Plan 2009-2013. See Fig. 4 for the terms of reference for the TWG.

3.2.3 Mode of Operation: The M&E TWG meets quarterly while its adhoc sub committees meet more frequently as the need arises

Figure 4: Terms of Reference for M&E TWG

Specific Roles and Responsibilities

1. **Strengthen NMCP M&E branch to effectively coordinate and manage M&E activities at all levels**
    a. Facilitate finalization and dissemination of national M&E plan
    b. Develop a mechanism for performance monitoring within the NMCP
    c. Establish linkage mechanism with relevant national health information bodies, e.g. Epid Unit, NHMIS, NBS,

2. **Support timely, accurate and complete routine programmatic data generation, feedback and reporting**
    a. Review and harmonize data generation tools across projects to reflect reporting based on relevant indicators
    b. Develop an appropriate, integrated and automated data management system using appropriate software.
    c. Establish appropriate mechanisms for periodic data review and feedback at all reporting levels, including the private sector.
    d. Support timely generation and dissemination of programmatic technical report

3. **Support M&E branch of NMCP to ensure data availability from periodic surveys**
    a. Map malaria –related evaluation surveys planned and on-going through out the country
    b. Support timely generation and dissemination of annual report

4. **Support M&E to develop an operational research agenda for malaria control in Nigeria**
    a. Identify and prioritize malaria and related operations research issues
    b. Advocate for resources to implement operations research
    c. Develop a comprehensive operational guideline for sentinel sites monitoring and evaluation
    d. Engage research institutions in implementation and reporting of operations research for the programme

5. **Support the establishment of a sustainable linkage between research and programmatic policy decision-making**
    a. Compile information on all past and on-going malaria related operations research

3.3 Overall Roles and Responsibilities

NMCP and other stakeholder including implementing partners, especially the M&E branch

The head of the M&E branch of NMCP will oversee all M&E activities within the logical framework described in the NMSP and will be responsible for their coordination at the national level.

He/She will ensure that M&E activities for all malaria control projects within the purview of NMCP (WB booster project, DfID project and Global Fund and other projects) are harmonized. He/She will ensure that adequate data are reported on timely basis and feedback is given to all stakeholders.

While the service providers at various levels are responsible for data collection, the M&E branch of NMCP at the national and state levels are responsible for providing technical support and analysis. The data collection process covers all programmatic deliverables such as the movement of drugs and other commodities down the supply chain and the utilization of such commodities by the end users, capacity building and other activities. Most of the data will be generated at the Health facility, State and LGA levels. The data is collected using standardized data collection tools which are designed particularly to capture data on the various deliverables and at various levels.

3.1.3 Data Collection, Collation and Transmission Methods:

Accurate and timely data will be collected at health facility, LGA, State and National levels using existing and new structures, where necessary.

3.3.1 Public Health Facilities

- At the community level: Routine information on fever/malaria cases and treatments, among others, will be collected by trained Community Oriented Resource Persons (CORPs) e.g. Role Model Mothers (RMM) and Village Health Workers who submits the data forms and report to the focal person of the nearest health facility.

- At the Health Facility level: Routine information on fever/malaria cases and treatments, including programmatic information e.g. commodity tracking and reporting of activities, among others, will be collected by trained HF Staff (Records Officers, or designated officers) in each health facility using the recommended tools. The data is retrieved by the LGA malaria focal person on monthly basis.

- At the LGA level, the LGA malaria focal person in collaboration with the PSM and M&E officers collate and summarize data from health facilities using the LGA monthly summary form and submits to the state during the monthly state level programme coordination meeting.

- At the State Level, the State Malaria Control Program Manager in collaboration with the Pharmacist i/c medical store and M&E officer collate and summarize all programmatic data and information collected from the LGAs into a state summary form and transmits to the NMCP and shares same with the PSM branch and PRs on monthly basis. At National Level: All States, Partners, relevant stakeholders as well as other NMCP branches submit their data to the M&E branch. These data and other Malaria programmatic information from Epidemiology Division and NHMIS are shared with the RBM Partners and the National Bureau of Statistics. **Teaching Hospitals:**
  Recognising the peculiarity of teaching hospitals and Federal Medical Centres, with respect to data transmission, a system has been put in place for linkage between these institutions and the Local Government as well as the M&E branch of NMCP. Data is collated and submitted monthly through the offices of the chief medical director to the Local Government through the state to NMCP

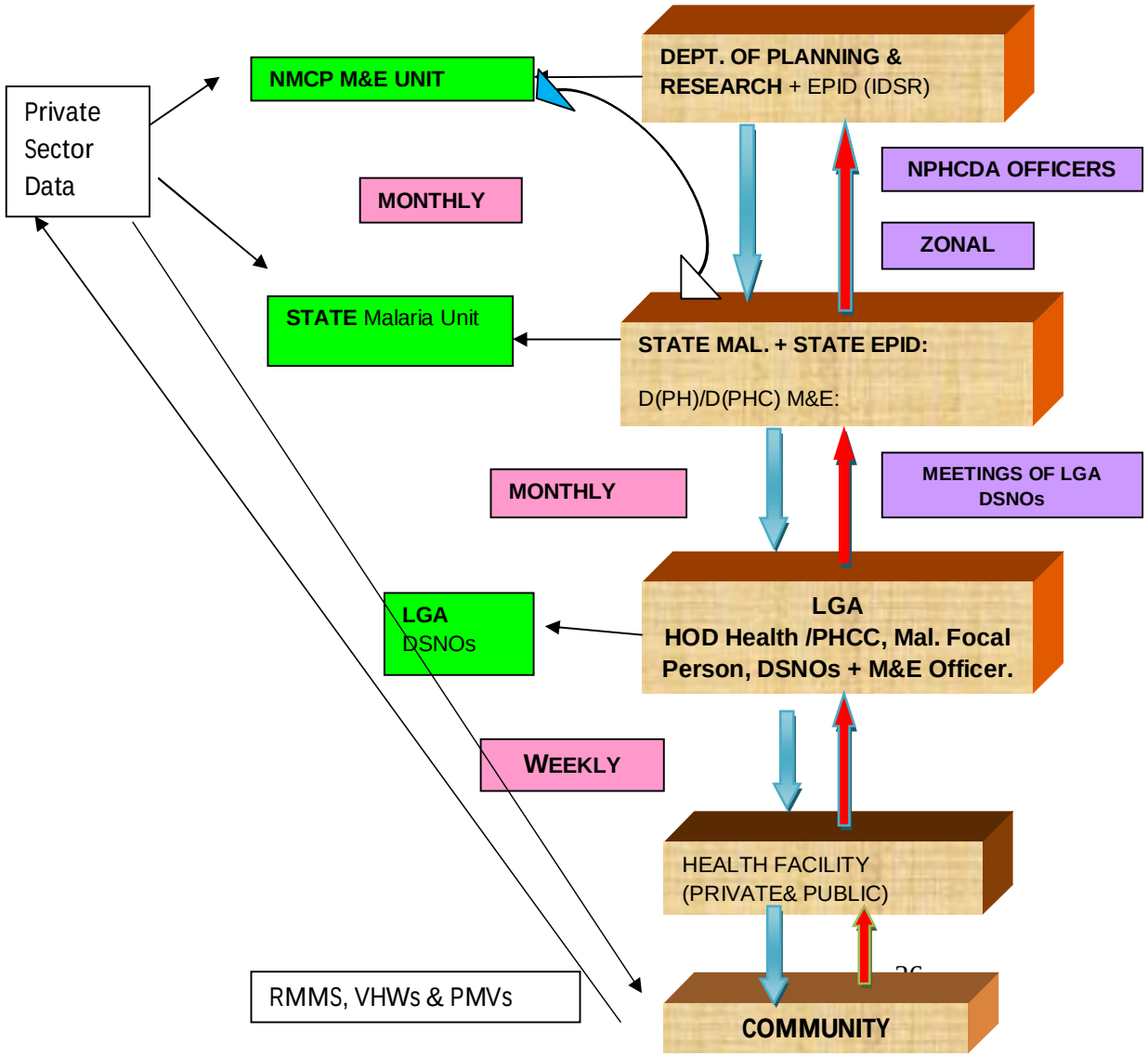
3.3.2 Private Sector Data Flow

- The data collected by private sector Partners and LGA M&E focal persons at the HF level and other sources are aggregated at the State level. The data are analyzed and shared with State at the State monthly meeting while at the National; it is shared with NMCP at the monthly Partners' Forum. These data are collated with the data from the public sector by the M&E team of NMCP to arrive at the National data report. These data are reviewed for planning and stored at the M&E NMCP data base for references. NMCP will verify data from the private sector during the quarterly supervisory visits to the States and LGAs

- Recognising the current challenge of collecting data from private health facilities, the existing relevant tools will be introduced to private health facilities through their various Associations. These associations include: Association General Private Medical Practioners of Nigeria (AGPMPN), Association of Community Pharmacists (ACP), National Association of Patent Medicine Dealers (NAPMED) and other relevant

associations. The Private sector implementers and LGA should be mandated to retrieve both surveillance and commodity utilization data and submit through the state to NMCP on monthly basis.

Figure 5: Organizational chart for M&E data flow



3.1.4 Sources of data and information:

Programmatic data would primarily be generated and collected through program activities at all levels of programme implementation. This would include activities at the HF, Community, LGA, States, and National levels. Other forms of data at various stages of programme implementation could be generated through Routine Health Information System including the Integrated Disease Surveillance and Response (IDSR) of the Ministry of Health; Health Facility reports (including patients' records); Roll Back Malaria Program reports; Grants

The State M&E officer will coordinate M&E activities including the management of data flow, implementation and monitoring of quality management systems and capacity building in M&E for relevant stakeholders at the LGA level. He/she will work with the state malaria programme manager to ensure that M&E activities as well as the data collected are appropriate, meet programme needs and are submitted on time and send same to the NMCP M&E branch.

The M&E officers at the local level will however ensure adequate data generation from the facility and community levels. They will also be responsible for providing feedback to service providers after review of data and provide necessary technical supports.

3.1.5 Reporting Processes

- Commodity utilization data on quantity of drugs (ACTs) received and administered to children under five is generated at the community level in the public sector by CORPs (RMMs) and private sector by PPMVs on daily basis. In the public sector, these are submitted monthly to designated health facilities by supervising CORPs while the PR for the private sector collects such from all participating PPMVs.

- Commodity utilization data including quantity of drugs and diagnostics, (ACT, SP & RDTs) received and administered to patients and LLINs received & distributed to end users is generated at the health facility level on daily basis and collated from communities on a weekly basis;

- LGA RBM focal persons collect and collate data from health facilities in their LGAs and report to States in both detail and summary forms, using HF and LGA monthly summary reporting formats;

- State RBM Managers collect and collate the LGA reports, summarize it into state report by LGA and by HF and submits to the NMCP on monthly basis; reports from private health facilities are also collated by the Private sector PR.

- Before the beginning of each reporting quarter, these monthly states data are inputted in the national data base, and a quarterly summary report is produced and shared with PRs and other partners. The states (Public and Private sectors) data are validated during NMCP's quarterly supervisory visits to the states.

3.1.5.1 Malaria M&E within NMCP

The monitoring and evaluation team of NMCP works under two units: Field Operations, Surveillance and Data Management unit and a Coordination and Reporting unit. These units are coordinated by the Head of M&E Branch.

In summary, the National M&E team will perform the following functions, among others:

- Communicate with key counterparts at National level

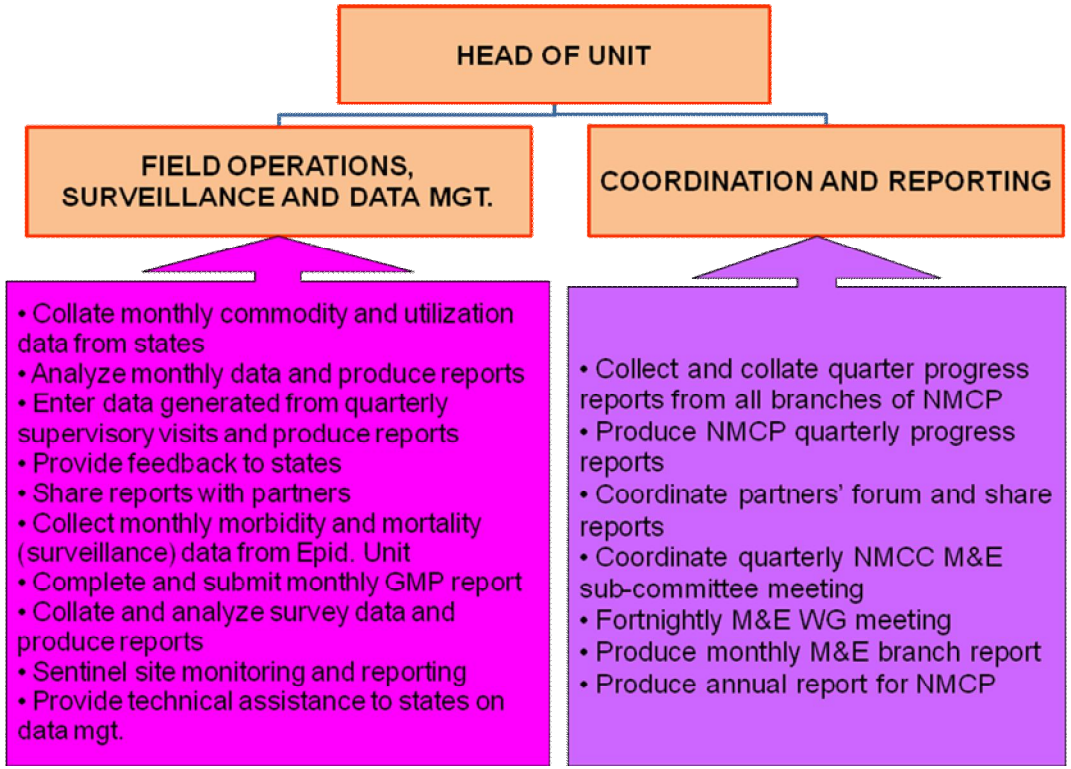
- Ensure that NMCP M&E Strategies are adhered to and functional;

- Develop and/or adapt, monitor the use and modify M&E tools

- Prepare reports for dissemination and feedback

The chart below gives more details of the functions of the team by unit.

Figure 6: NMCP M&E Branch Organogram



3.1.6 Monitoring & Evaluation of Malaria Control Programme

3.1.6.1 Monitoring Process & Output:

NMCP and other partners will direct efforts at reviewing process and output data collected to track programme performance. NMCP will also closely monitor and review work plans and reports and in collaboration with the PRs, Project Implementation Facilitators and other relevant stakeholders It will pay regular visits to service delivery facilities both private and public and also communities

to examine record of activities and quality of service being provided to clients. A monitoring checklist will be developed to enhance the objectivity of the facility visits/assessments.

The process monitoring will help to determine whether activities are implemented as planned, what resources are being used, how well services are provided, and who the program is reaching. Data will be obtained from several sources including the health management information system (facility level), activity forms, training logbooks, direct observations and client and provider interviews.

-3.6.1.1 –PHARMACO-VIGILANCE:

The NMCP has a strong collaboration with NAFDAC for tracking data on passive (adverse events reporting) and active (cohort events monitoring) activities. These data will be gotten from NAFDAC on a monthly basis

3.6.1.2 **Sentinel Site Monitoring:**

Nigeria has fourteen sentinel sites for monitoring trend with respect to Malaria disease burden and conducting periodic Drug Therapeutic Efficacy Testing (DTET). The capacities of these sites are also being built to conduct entomological/parasitological studies including insecticide resistance monitoring and mapping. It is expected that a DTET will be conducted once in two years. The data generated at the sites should be transmitted through the LGAs, States to NMCP on monthly basis. NMCP should monitor the activities at these sites during the quarterly supervisory visits to the states

3.1.6.2 Monitoring Quality of Services

The NMCP will monitor the quality of services provided in both public and private health facilities. In order to do this, the NMCP working in collaboration with Partners and other relevant stakeholders will identify and gather all the relevant national guidelines, norms and Standard Operation Procedures (SOPs). The guidelines and SOPs will serve as the reference guiding service delivery activities at the health facilities and other service outlets. Existing guidelines and SOPs will be periodically reviewed and revised as necessary.

As part of the activities to monitor quality of services, tools for routine internal evaluation of activities to measure quality of services will be developed. In addition checklists and other interview schedules will be developed for service providers as well as for clients. Also regular visits to service delivery sites by NMCP and independent monitors to observe service delivery process (particularly patient-provider interaction), review data forms/records, or assess training needs and the extent to which recommended changes have been implemented will be conducted.

3.1.6.3 Evaluating the National Strategic Plan:

Evaluation of the strategic plan will focus on the outcome and impact indicators of the programme. While the program output data will be obtained through routine data collection of service provision, outcomes/impact, which are often population-based will be obtained through **surveys of the target population.** Malaria Indicator Surveys will be conducted for a mid and end-term evaluations of the country strategic plan for malaria control. Planning and implementation of the surveys will be in conjunction with all technical partners and stakeholders. Appendix 3 shows the outcome and impact indicators that would be measured.

3.1.6.4 Description of Outcome Indicators and Measurements

- ***Proportion of Households with at least One ITN***
- ***Numerator:*** Number of households surveyed within malaria endemic areas with at least one mosquito net, which has been treated within 12 months or has been permanently treated.
- ***Denominator:*** Total number of households surveyed within malaria endemic areas.
- ***Purpose***
- This indicator will be used to measure household ITN possession among the population at risk for malaria at the national level.
- ***Method of Measurement***

- This indicator requires data collected at the household level from nationally representative sample surveys.
- ***Proportion of Households with at least One LLIN***
- ***Numerator:*** Number of households surveyed within malaria endemic areas with at least one LLIN.
- ***Denominator:*** Total number of households surveyed within malaria endemic areas.
- ***Purpose***
- This indicator will be used to measure household LLIN possession among the population at risk for malaria at the national level.
- ***Method of Measurement***
- This indicator requires data collected at the household level from nationally representative sample surveys.
- **Proportion of Children Under 5 Years Old with Fever within the last 2 weeks who received anti-malarial treatment according to national policy within 24 hours from onset of fever**
- ***Numerator:*** Number of children under 5 years old who had a fever in previous 2 weeks who received antimalarial treatment according to national policy <24 hours from onset of fever, within malaria endemic areas.
- ***Denominator:*** Total number of children under 5 years old who had a fever in previous 2 weeks, within malaria endemic areas.
- ***Purpose***
- This indicator captures the national-level access to prompt and effective treatment for malaria within malaria endemic areas.
- ***Method of Measurement***

- This indicator requires data collected from nationally representative household sample surveys within malaria endemic areas. Areas of the country without endemic malaria must be identified so that they may be excluded from this indicator. If questions are to be added on as a rider to a survey, it is important that the survey contain a household listing that captures all women of reproductive age and/or all children under 5 years old who slept within each surveyed household the previous night.

- ***Interpretation***

- This indicator provides a proxy measure for the level of access of children under 5 years old at risk for malaria to prompt and effective treatment for malaria infections, according to national malaria treatment policy.

- **Proportion of persons 5 years and above with malaria who received appropriate anti-malarial treatment according to national policy Check RBM toolkit**

- ***Numerator:*** Number of persons 5 years and above who had malaria who received appropriate anti-malarial treatment according to national policy.

- ***Denominator:*** Total number of persons 5 years and above who had malaria.

- ***Purpose***

- This indicator captures the national-level access to effective treatment for malaria.

- ***Method of Measurement***

- This indicator requires data collected from nationally representative household sample surveys .If questions are to be added on as a rider to a survey, it is important that the survey contain a household listing that captures all women of reproductive age and/or all children under 5 years old who slept within each surveyed household the previous night.

- ***Interpretation***

- This indicator provides a proxy measure for the level of access of persons 5 years and above with malaria to effective treatment for malaria infection, according to national malaria treatment policy.

- **Proportion of Pregnant Women Who Slept Under an ITN/LLIN the Previous Night**

- **Numerator:** Number of pregnant women at risk for malaria who slept under a mosquito net the previous night, which has been treated within 12 months or has been permanently treated.

- **Denominator:** Total number of pregnant women who reside within surveyed households within malaria endemic areas.

- ***Purpose***

- This indicator will be used to measure the level of ITN / LLIN use by pregnant women at risk for malaria at the national level.

- ***Method of Measurement***

- This indicator requires data collected from nationally representative household sample surveys. Areas of the country without endemic malaria must be identified so that they may be excluded from this indicator. Because of the small number of currently pregnant women at any given time, a survey designed to collect these data should have an overall sample of ≥5,000 women (to be comparable with DHS surveys). Note that the MICS survey does not currently collect data for this indicator because of restricted sample sizes. If questions are to be added on as a rider to a survey, it is important that the survey contain a household listing that captures all women of reproductive age within each surveyed household.

- Such surveys should be conducted with sufficient design and sample size to allow comparisons among regions and urban / rural strata at the individual level. The data for the denominator are obtained from a series of questions asked of all women of reproductive age in the household about their current pregnancy status. The data for the numerator are then obtained from a listing of these women that slept under a mosquito net the previous night, in combination with information on current pregnancy status and whether the net had been treated with insecticide within 12 months or had been permanently treated.

- ***Interpretation***

- This indicator provides national level coverage of pregnant women with ITN / LLIN

- **Proportion of Women Who Received Intermittent Preventive Treatment for Malaria During Their Last Pregnancy**

- **Numerator:** Number of women at risk for malaria who received 2 or more doses of a recommended antimalarial drug treatment to prevent malaria during their last pregnancy that led to a live birth within the last 2 years.

- **Denominator:** Total number of women surveyed at risk for malaria who delivered a live baby within the last 2 years.

- ***Purpose***

- This indicator will be used to measure the national-level use of IPT to prevent malaria during pregnancy among women at risk for malaria.

- ***Method of Measurement***

- Data from the women's questionnaires for all women who delivered a live baby within the last 2 years within surveyed household is used to calculate the denominator. The numerator is derived from the number of women who mention taking an antimalarial for prevention (NOT treatment) during their most recent pregnancy (from among all listed births to women in the last 2 years). Note that in the DHS and MIS surveys, data from the women's questionnaire includes all births within the previous 5 years, from which the child's date of birth can be used to limit these to the last pregnancy that resulted in a live birth within the previous 2 years. It is important to differentiate between a treatment dose for prevention (as prescribed for IPT) and actual treatment of an existing malaria infection. Although it is extremely difficult to differentiate in the context of a survey interview, the latter is curative care, and does not count as standard IPT procedure. Similarly, women taking weekly chloroquine prophylaxis are not considered to be covered by IPT.

- ***Interpretation***

- This indicator provides a proxy measure for the proportion of pregnant women at risk for malaria who receive IPT during pregnancy, at the national level.

3.1.7 Operations Research

As part of the efforts to continuously improve the quality and effectiveness of program services, an operations research (OR) agenda will be developed and undertaken. Examples will include increasing use of ANC service as a vehicle to providing IPT to pregnant women, testing delivery mechanisms for LLINs, Drug Therapeutic Efficacy Monitoring among others.

3.1.8 Data Quality Assurance Systems

The ultimate goal of data collection is to use it to measure programme performance and to ensure that it is fed back into the decision-making process for improved programme implementation. The effective use of data and information depends largely on the quality.

Thus, recognizing the importance of quality in data and information use and the fact that data collection and quality assurance systems experienced some inadequacies in the 1st phase of the GFATM round 4 grant, efforts would be intensified at M&E capacity building and use of programme specific software in data management at the national and sub national levels. Other measures put in place to ensure adequate data collection and quality assurance include increased funding for M&E at all levels, use of standardized tools and minimizing reporting burdens, strengthening of NMCP data base, amongst others. NMCP has also put in place an elaborate structure for effective supportive supervision at all levels.

In addition, the Health Systems component of the Round 8 grant makes provision for recruiting records officers in health facilities in all the LGAs covered by the component. This will ensure more dedication to qualitative data collection and better quality of service as the extra burden of record keeping is taken off the health workers.

The data being collected at the service delivery points and community level will be subjected to the following quality checks:

- Homogeneity: it is expected that all those providing the same services will be reporting information on the same issues at all times, this can only be possible if they are all trained in a similar way with the same curriculum.
- Completeness: to ensure that all the information required are provided on the data collection forms e.g. dis-aggregation by sex, age groups, etc.
- Coherence: this is checking the information on the forms to ensure that it is consistent with other information within the forms i.e. the total should actually be a summation of total number of males and females (if applicable)
- Reliability: there is a need to find out whether the service provider actually provided service to the number of persons claimed on the data collection forms. Data collected will be verified during field visits to the service delivery points.

- Accuracy: this will check whether what was recorded actually took place.

3.1.8.1 Dissemination and Use of Information and Reports

The M&E branch of NMCP produces on a quarterly basis programmatic progress reports which cover all the service delivery areas of NMCP. These are compiled into comprehensive annual reports covering all activities carried out in the year under review at national and sub-national levels and expanded to include partners' support received for programme implementation in terms of technical assistance, funds and equipment amongst others.

Other reports produced by the M&E branch include quarterly Supervisory Visit Reports, Technical Reports on surveys and commodity distribution and utilization reports.

Feedback occurs at all levels, from NMCP to partners, principal recipients for GFATM projects, relevant programmes / departments in the FMOH, States, LGAs and other stakeholders.

Reports (published and unpublished) are shared with partners, funders, principal recipients and stakeholders at all levels through established channels which include *Quarterly Partners' Forum; quarterly PR/SR Coordination meetings; Dissemination Meetings, Annual Programme Reports and Review Meetings.*

NMCP also feeds data into the WHO Global Malaria Programme database through the country WHO Malaria secretariat.

3.1.8.2 Detailed Work Plan for Monitoring and Evaluation

The table below **(Table 3)** shows activities and sub-activities that will be carried out on monitoring and evaluation by timelines. The timelines for specific activities are provided quarterly for the first two years and yearly afterwards.

3.1.8.3 Mechanisms for Updating M&E Plan

To ensure effectiveness, the National Monitoring and Evaluation Plan will be reviewed periodically in light of lessons learned, on-going partner harmonization efforts and the evolving needs of the programme and stakeholders. The M&E Plan will also be supported by quarterly M&E Work / Activity Plans to ensure that all planned activities are implemented as scheduled.

Table 2: Action Plan for Monitoring and Evaluation

Sn	Activities	Sub-activities	Timeline								
			Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Y3
1	**Strengthen routine data generation and flow from public/private facilities and community based health providers for the National Health Management Information System (NHMIS).**	Finalize and build consensus on updated M&E plan by key stakeholders -Workshop to ensure malaria M&E framework and plan are harmonized with broader health M&E system and shared with interested stakeholders									
		Organize public and private sector stakeholders' workshop on strengthening M&E at national level									
		Organize public and private sector stakeholders' meetings on strengthening M & E at zone level: Workshop in 6 zones, 40 people year 1 and repeated in years 3 and 4									
		Update Inventory of public/private health facilities (location, services, capacity) in all LGAs through health department & Medical Associations									
		Supervise and retrieve reports from community based (Public & Private) treatment providers									
2	**Updating and reprinting of M&E data capturing and reporting tools (HMIS, IDSR and malaria-specific)**	Workshop to update M&E tools (HMIS, IDSR, NMCP, Technical Consultants)									
		Print updated M&E tools for all health facilities (24,000)									
		Development and Printing of IRS documents eg House spray cards, monitoring and checklists									
3	**Strengthen Capacity for malaria M&E at all levels**	Support initial and refresher training courses for National M&E team in Data Management (SPSS, Epi-Info and other software packages), Survey Methodology and Reporting, Project Monitoring and Evaluation and Impact Evaluation.									
		Train State M&E officer & malaria Programme Managers, LGA M&E officers and malaria focal persons in record keeping and reporting, programme monitoring and evaluation									
		Train health workers of public/private health facilities in record keeping, reporting, program monitoring and evaluation									
		Train teams responsible for drug and insecticide efficacy monitoring.									
4	**Upgrade IT facilities of expanded M&E branch at all level**	Upgrade IT facilities of expanded M&E Unit at national level (4 Desk Tops, 4 Laptops, 2 printers, network router, internet account and peripherals including existing website management)									
		Upgrade IT facilities of expanded M&E Units at state level (2 desktops, 1 printer, internet account and peripherals)									
		Develop and deploy integrated M&E software, building on existing HMIS customized software package									
		Scale up support and networking for data generation and reporting from health facilities to LGA, state and federal levels									
5	**Support supervisory visits and coordination meetings for data retrieval and collation at all levels.**	Facilitate monthly meetings of M&E working group at national level									
		Support monthly coordination meetings of LGA focal persons at the state level									

		Support quarterly supervisory visits to states and LGAs and by national M&E officers (4 day visit)										
		Support monthly supervision of LGAs and health facilities by State Malaria Programme Managers										
		Support monthly supervision of health facilities by the LGA malaria focal persons										
6	**Strengthen data generation and sharing from periodic surveys**	Conduct baseline Malaria Indicator Survey										
		Conduct mid-term and end-of-project Malaria Indicator Survey										
		Conduct health facility surveys in coordination with other programs										
		Conduct LQAS survey in selected states										
		Carry out assessment of LLINs usage in the states/LGAs/communities										
		Support the States to carry out baseline data collection on epidemiologic and entomologic parameters										
		Support IRS operation evaluation in the States										
		Support the States to carry out GR/mapping in selected areas for IRS										
		TECHNICAL SUPPORT TO CONDUCT COMMUNITY BASED FORMATIVE RESEARCH ON KAP/KAB										
		Support private sector drug and net outlet surveys										
7	**Ensure new strategies for programme implementation are based on sound evidence (operational and implementation research)**	Test delivery strategies for LLINS, ACTs and diagnostics including cost-effectiveness, feasibility and acceptability										
		Carry out Vector Control Needs Assessment for scaling up IVM										
8	**Advocacy to States and Local Government Authorities and community leaders on importance of data generation , feed back and use.**	Conduct zonal level meetings for states showing the relevance and utility of good data										
		Conduct State level meetings for LGAs showing the relevance and utility of good data										
		Publish annual report on progress of malaria programme towards the MDGs										
		Support the sponsorship for a bill mandating private facilities to report health data, and follow up with advocacy visits to States Houses of Assembly.										
9	**Strengthen pharmacovigilance systems for anti-malarials in collaboration with NAFDAC**	Assess existing resource capacity for pharmacovigilance at sub-national levels in the country										
		Conduct workshops in strengthening pharmacovigilance capacity of 2 health workers per secondary health facility per state (1622)										
		Conduct workshops to strengthen pharmacovigilance capacity of 774 LGA malaria focal persons and 2 health workers per LGA										

		Develop and print job aids for health workers on passive pharmacovigilance (spontaneous reporting) for Antimalarial.																		
		Develop protocols for conducting drug specific active pharmacovigilance in country. Conducted jointly with other stakeholders in the country and internationally.																		
		Develop protocols for conducting drug specific active pharmacovigilance in country.																		
		Conduct active surveillance of first line Antimalarial -Artenether-Lumefantine and Artesunate+Amodiaquine (phase 1)																		
10	**Drug and insecticide resistance monitoring through sentinel sites surveillance**	Conduct drug efficacy studies biannually																		
		Analyze blood samples for DTET using PCR methodology																		
		Carry out periodic insecticide resistance monitoring in the States																		
		Support the conduct of insecticide susceptibility studies																		

Table 3: Budget for Action Plan

Sn	Activities	Sub-activities	Timeline											Bu			
			Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Y3	Y4	Y5	Year 1	Year 2	Year 3	
1	**Strengthen routine data generation and flow from public/private facilities and community based health providers for the National Health Management Information System (NHMIS).**	Finalize and build consensus on updated M&E plan by key stakeholders -Workshop to ensure malaria M&E framework and plan are harmonized with broader health M&E system and shared with interested stakeholders															
		Organize public and private sector stakeholders' workshop on strengthening M&E at national level												7,675.00	0.00	0.00	
		Organize public and private sector stakeholders' meetings on strengthening M & E at zone level: Workshop in 6 zones, 40 people year 1 and repeated in years 3 and 4												15,840.00	0.00	0.00	
		Update Inventory of public/private health facilities (location, services, capacity) in all LGAs through health department & Medical Associations												33,548.00	0.00	0.00	

		Supervise and retrieve reports from community based (Public & Private) treatment providers												0.00	0.00	0.00
2	**Updating and reprinting of M&E data capturing and reporting tools (HMIS, IDSR and malaria-specific)**	Workshop to update M&E tools (HMIS, IDSR, NMCP, Technical Consultants)														
		Print updated M&E tools for all health facilities (24,000)												330,036.00	247,765.00	201,722.00
		Development and Printing of IRS documents eg House spray cards and checklists												67,242.00		
3	**Strengthen Capacity for malaria M&E at all levels**	Support initial and refresher training courses for National M&E team in Data Management (SPSS, Epi-Info and other software packages), Survey Methodology and Reporting, Project Monitoring and Evaluation and Impact Evaluation.												24,324.00	24,324.00	24,324.00
		Train State M&E officer & malaria Programme Managers, LGA M&E officers and malaria focal persons in record keeping and reporting, programme monitoring and evaluation												12,699.00	0.00	12,699.00
		Train health workers of public/private health facilities in record keeping, reporting, program monitoring and evaluation												576,000.00	0.00	69,510.00
		Train teams responsible for drug and insecticide efficacy monitoring.												35,867.00	7,785.00	35,867.00
4	**Upgrade IT facilities of expanded M&E branch at all level**	**Upgrade IT facilities of expanded M&E Unit at national level (4 Desk Tops, 4 Laptops, 2 printers, network router, internet account and peripherals including existing website management)**														
		Upgrade IT facilities of expanded M&E Units at state level (2 desktops, 1 printer, internet account and peripherals)												111,216.00	0.00	0.00
		Develop and deploy integrated M&E software, building on existing HMIS customized software package												43,888.00	0.00	0.00
5	**Support supervisory visits and coordination meetings for data**	Facilitate monthly meetings of M&E working group at national level												3,000.00	0.00	0.00

	retrieval and collation at all levels.	Support monthly coordination meetings for data retrieval from communities/health facilities at LGA level											0.00	526,320.00	0.00
		Support monthly coordination meetings of LGA focal persons at the state level											1,343,232.00	1,343,232.00	668,019.00
		Support quarterly supervisory visits to states and LGAs and by national M&E officers (4 day visit)											269,570.00	269,570.00	134,785.00
		Support monthly supervision of LGAs and health facilities by State Malaria Programme Managers											68,185.00	90,913.00	136,370.00
		Support monthly supervision of health facilities by the LGA malaria focal persons											165,853.00	165,853.00	165,853.00
6	**Strengthen data generation and sharing from periodic surveys**	Conduct baseline Malaria Indicator Survey											250,000.00	0.00	0.00
		Conduct mid-term and end-of-project Malaria Indicator Survey											0.00	0.00	220,000.00
		Conduct health facility surveys in coordination with other programs											251,000.00	0.00	100,000.00
		Conduct LQAS survey in selected states											500,000.00		
		Carry out assessment of LLINs usage in the states/LGAs/communities											245,550.00		
		Support the States to carry out baseline data collection on epidemiologic and entomologic parameters											81,000.00		
		Support IRS operation evaluation in the States											49,995.00		
		Support the States to carry out GR/mapping in selected areas for IRS											33,000.00		
		Provide technical support to conduct commuity-based formative research on KAP/KAB											34,589.00		
7	**Ensure new strategies for programme implementation are based on sound evidence (operational and implementation research)**	Test delivery strategies for LLINS, ACTs and diagnostics including cost-effectiveness, feasibility and acceptability											120,000.00	0.00	0.00
		Carry out Vector Control Needs Assessment for scaling up IVM											70,000.00		
8	**Drug and insecticide resistance monitoring through sentinel sites**	Support sentinel surveillance											13,374.00	20,061.00	13,374.00

	surveillance	Monitoring of sentinel sites											65,021.00		
		Conduct therapeutic efficacy trial											250,573.00		
		Carry out periodic insecticide resistance monitoring in the States											45,065.00		
													5,117,342	**2,695,823**	**1,782,523**

Since the inventory of the HFs is not yet updated (see row 4), the number 24000 may change after the update.

Appendix 1. Core Malaria indicators in the malaria strategic plan

Table 3: Outcome, Impact Indicators and Targets by Year

Type of Indicator	Indicator	Baseline			Targets					Measurement	Comments
		Value	Year	Source	2009	2010	2011	2012	2013		
impact	Death rates associated with Malaria: all-cause under-5 mortality rate'	157/1000	2008	DHS/DHS+ (Demographic Health Survey)		134/1000			114/1000	Death rates associated with Malaria over/all cause U5 mortality	The assumptions are that malaria is responsible for 30% of all cause under-5 mortality. It has therefore estimated that achieving a 50% reduction in malaria mortality should translate to a 15% reduction in the deaths associated with malaria. The data will be collated through the DHS and the MIS
impact	Incidence of confirmed malaria cases in sentinel demographic surveillance sites per total population of the sites in which the sentinel site is located.	60%	2005	HMIS (MOH routine malaria report and LQAS World bank)		Baseline			30% less baseline	No of malaria cases seen at HFs (in-patient and out-patient)	The current HMIS reporting rate is considered to be a significant under reporting. Hence the nearest approximate source of data has been chosen. This proposal also focuses on strengthening the country's HMIS in order to ensure that data on malaria is captured from all levels of care in order to reflect on the true burden of the disease across the country

Type of Indicator	Indicator	Baseline			Targets					Measurement	Comments
		Value	Year	Source	2009	2010	2011	2012	2013		
impact	Malaria parasite prevalence in children under five	38%	2007	Other report, (Special survey conducted by WHO)		28.5%			19%	No of children under 5 having a positive blood smear/total No of children U 5 tested x 100	Assumption is that there will be 25% reduction of Malaria prevalence by year 2 and 50% reduction in year 5 .i.e. 2013.MIS will be used as a baseline in year 2 .There will be and end term evaluation in year 5 in the absence of which NDHS will be reported.
outcome	% of households with at least one ITN / LLINs	4.0%	2007	MICS (Multiple Indicator Cluster Survey)	60%	100%	100 %	100 %	100%	No of HHs with at least one ITNs/Total No of HHs Surveyed x100	
outcome	% of households with at least two ITN / LLINs	2.7%	2007	DHS/DHS+(Demographic Health Survey)		80%	90%		100%	No of HHs with two or more ITNs/Total No of HHs Surveyed x100	It is expected that each Household in Nigeria will have at least 2 ITNs to achieve universal coverage
outcome	% of children U5 sleeping under an ITN / LLINs the previous night	3.5%	2007	MICS (Multiple Indicator Cluster Survey)		80%	80%	80%	80%	No of children U-5 who slept under ITNs the previous night/Target pop. Of U-5 X100	It is expected that in addition to HH distribution of nets, under 5 will receive ITN from other sources such as immunization clinics.
outcome	% of pregnant women (sleeping under an ITN / LLINs	3.1%	2007	MICS (Multiple Indicator Cluster Survey)		80%	80%	80%	80%	No. of pregnant women who slept under ITNs the previous night/Total target pop. Of pregnant women x 100	It is expected that in addition to HH distribution of nets, pregnant women will receive ITN from other sources such as ANC clinics.

Type of Indicator	Indicator	Baseline			Targets					Measurement	Comments
		Value	Year	Source	2009	2010	2011	2012	2013		
outcome	% of children five years and above plus adults with malaria/fever receiving appropriate treatment within 24 hours (community/health facility) according to national guideline	Unknown	2008	MIS (Malaria Indicator Survey)	5%	30%	50%	70%	80%	No of pop. Of children five years and above plus adults positve for malaria/fever receiving appropriate treatment/Total No of pop. Of children five years and above plus adults positive for malaria/fever	
outcome	% of U5 children with fever receiving appropriate treatment within 24hrs (community/health facility) according to national guideline	35.9%	2007	MICS (Multiple Indicator Cluster Survey)		60%	80%	80%	80%	No of children under 5 with fever who were treated with ACTs within 24 hrs of onset of fever/Total No. of children with fever x 100	MICS will be reported in year 3,there will be an end term evaluation in year 5 in the absence of which NDHS will be reported.
outcome	% of children five years and above plus adults with malaria/fever receiving a diagnostic test (community/health facility)	unknown	2008	MIS (Malaria Indicator Survey)	10%	20%	40%	60%	80%	No of pop. Of children five years and above plus adults positve for malaria/fever receiving approriate treatment/Total No of pop. Of children five years and above plus adults positive for malaria/fever	

Type of Indicator	Indicator	Baseline			Targets					Measurement	Comments
		Value	Year	Source	2009	2010	2011	2012	2013		
outcome	% of U5 children admitted with severe malaria and correctly managed at health facilities	unknown	2007	Survey	60%	80%	80%	100 %	100%	No of U5 children with severe malaria and correctly managed at health facility over /Total No U5 children with severe malaria x 100	
outcome	% of pregnant women admitted with severe malaria and correctly managed at health facilities	unknown	2007	Survey	60%	80%	80%	100 %	100%	No of pregnant women with severe malaria and correctly managed at health facility over /Total No of pregnant women with severe malaria x 100	
outcome	Case fatality rate (% of malaria deaths among malaria admission)			MIS (Malaria Indicator Survey)		2%	1.5 %	1.0 %	0.5	(% of malaria deaths among malaria admission)	
outcome	% of pregnant women attending ANC who receive SP- IPT 2	Unknown	2007	MICS (Multiple Indicator Cluster Survey)	60%	100%	100 %	100 %	100%	No.of pregnant women who received at least two doses of IPT with SP during ANC visit under direct observation/Total No. of pregnant women who came for ANC visits x100	An intermediate objective here is to target 100% of pregnant women attending ANC. This will translate into 60% of pregnant women by 2010. Effort will be put in place to ensure increased ANC attendance and the delivery of SP-IPT through private clinics.

Type of Indicator	Indicator	Baseline			Targets					Measurement	Comments
		Value	Year	Source	2009	2010	2011	2012	2013		
outcome	% of pregnant women who receive SP- IPT 2	2.9%	2007	MICS (Multiple Indicator Cluster Survey)	50%	60%	70%	75%	80%	No. of pregnant women who received SP- IPT 2/Total No. of pregnant women x 100	When ANC utilization rises to 80%, a 100% coverage of SP-IPT2 of women attending ANC will translate to 80% of total population of pregnant women.
outcome	% of households in malaria areas protected by IRS in the past 12 months	2%	2008	IRS records	4%	8%	12%	15%	20%	No of houses/structures in targeted areas that were sprayed with insecticides in the past 12 months/No of houses/ structures in targeted area	The use of IRS intervention shall be expanded progressively to protect 20% of the total HHs/structures in the country by the year 2013 as stataed in the strategic plan

Description of impact and outcome indicators

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
impact	Death rates associated with Malaria: all-cause under-5 mortality rate'		Death rates associated with Malaria over/all cause U5 mortality		The assumptions are that malaria is responsible for 30% of all cause under-5 mortality. It has therefore estimated that achieving a 50% reduction in malaria mortality should translate to a 15% reduction in the deaths associated with malaria. The data will be collated through the DHS and the MIS
impact	Incidence of confirmed malaria cases in sentinel demographic surveillance sites		Numerator: No of malaria cases seen at HFs (in-patient and out-patient) Denominator: Total population of the sites in which the sentinel sites are located		
impact	Malaria parasite prevalence in children under five		Numerator: No of children under 5 having a positive blood smear Denominator: Total No of children U 5 tested		

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	Proportion of Households with at least One LLIN / ***ITN***	This indicator will be used to measure household ITN / LLIN possession among the population at risk for malaria at the national level.	Numerator: No of HHs with at least one ITNs Denominator: Total No of households surveyed	This indicator requires data collected at the household level from nationally representative sample surveys.	
outcome	% of households with at least two ITN / LLINs		No of HHs with two or more ITNs / Total No of HHs Surveyed x100		
		This indicator will be used to measure household LLIN possession among the population at risk for malaria at the national level.	***Numerator:*** Number of households surveyed within malaria endemic areas with at least one LLIN. ***Denominator:*** Total number of households surveyed within malaria endemic areas.	This indicator requires data collected at the household level from nationally representative sample surveys.	
outcome	% of children U5 sleeping under an ITN / LLINs		Numerator: No of children U-5 who slept under ITNs the previous night / Denominator: Target population of U-5 children		

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	Proportion of pregnant women who slept under an ITN/LLIN the previous night	This indicator will be used to measure the level of ITN/LLIN use by pregnant women at risk for malaria at the national level.	Numerator: Number of pregnant women at risk for malaria who slept under a mosquito net the previous night, which has been treated within 12 months or has been permanently treated. Denominator: Total number of pregnant women who reside within surveyed households within malaria endemic areas.	This indicator requires data collected from nationally representative household sample surveys. Areas of the country without endemic malaria must be identified so that they may be excluded from this indicator. Because of the small number of currently pregnant women at any given time, a survey designed to collect these data should have an overall sample of ≥5,000 women (to be comparable with DHS surveys). Note that the MICS survey does not currently collect data for this indicator because of restricted sample sizes. If questions are to be added on as a rider to a survey, it is important that the survey contain a household listing that captures all women of reproductive age within each surveyed household. Such surveys should be conducted with sufficient design and sample size to allow comparisons among regions and urban/rural strata at the individual level. The data for the denominator are obtained from a series of questions asked of all women of reproductive age in the household about their current pregnancy status. The data for the numerator are then obtained from a listing of these women that slept under a mosquito net the previous night, in combination with information on current pregnancy status and whether the net had been treated with insecticide within 12 months or had been permanently treated.	This indicator provides national level coverage of pregnant women with ITN/LLIN

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	% of children five years and above plus adults with malaria / fever receiving appropriate treatment within 24 hours (community / health facility)	This indicator captures the national-level access to effective treatment for malaria within malaria endemic areas.	Numerator: No of pop. Of children five years and above plus adults positve for malaria / fever receiving appropriate treatment Denominator: Total No of pop. Of children five years and above plus adults positive for malaria / fever	This indicator requires data collected from nationally representative household sample surveys within malaria endemic areas. Areas of the country without endemic malaria must be identified so that they may be excluded from this indicator.	This indicator provides a proxy measure for the level of access of persons 5 years and above with malaria to effective treatment for malaria infection, according to national malaria treatment policy.
outcome	% of U5 children with fever receiving appropriate treatment within 24hrs (community / health facility)	This indicator captures the national-level access to prompt and effective treatment for malaria within malaria endemic areas.	Numerator: No of children under 5 with fever who were treated with ACTs within 24 hrs of onset of fever Denominator: Total No. of children with fever	This indicator requires data collected from nationally representative household sample surveys within malaria endemic areas. Areas of the country without endemic malaria must be identified so that they may be excluded from this indicator. If questions are to be added on as a rider to a survey, it is important that the survey contain a household listing that captures all women of reproductive age and / or all children under 5 years old who slept within each surveyed household the previous night.	This indicator provides a proxy measure for the level of access of children under 5 years old at risk for malaria to prompt and effective treatment for malaria infection, according to national malaria treatment policy.
outcome	% of children five years and above plus adults with malaria / fever receiving a diagnostic test (community / health facility)		Numerator: No of pop. Of children five years and above plus adults positve for malaria / fever receiving approriate treatment. Denominator: Total No of pop. Of children five years and above plus adults positive for malaria / fever		

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	% of U5 children admitted with severe malaria and correctly managed at health facilities	Survey	Numerator: No of U5 children with severe malaria and correctly managed at health facility over Denominator: Total No U5 children with severe malaria x 100		
outcome	% of pregnant women admitted with severe malaria and correctly managed at health facilities		Numerator: No of pregnant women with severe malaria and correctly managed at health facility over Denominator: Total No of pregnant women with severe malaria x 100		
outcome	Case fatality rate (% of malaria deaths among malaria admission)		Numerator: No of malaria deaths Denominator: Total no of malaria admissions		
outcome	% of pregnant women attending ANC who receive SP- IPT 2		Numerator: No.of pregnant women who received at least two doses of IPT with SP during ANC visit under direct observation Denominator: Total No. of pregnant women who came for ANC visits		

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	% of pregnant women who receive SP- IPT 2	This indicator will be used to measure the national-level use of IPT to prevent malaria during pregnancy among women at risk for malaria.	Numerator: Number of women at risk for malaria who received 2 or more doses of a recommended anti-malarial drug treatment to prevent malaria during their last pregnancy that led to a live birth within the last 2 years. Denominator: Total number of women surveyed at risk for malaria who delivered a live baby within the last 2 years.	Data from the women's questionnaires for all women who delivered a live baby within the last 2 years within surveyed household is used to calculate the denominator. The numerator is derived from the number of women who mention taking an anti-malarial for prevention (NOT treatment) during their most recent pregnancy (from among all listed births to women in the last 2 years). Note that in the DHS and MIS surveys, data from the women's questionnaire includes all births within the previous 5 years, from which the child's date of birth can be used to limit these to the last pregnancy that resulted in a live birth within the previous 2 years. It is important to differentiate between a treatment dose for prevention (as prescribed for IPT) and actual treatment of an existing malaria infection. Although it is extremely difficult to differentiate in the context of a survey interview, the latter is curative care, and does not count as standard IPT procedure. Similarly, women taking weekly chloroquine prophylaxis are not considered to be covered by IPT.	This indicator provides a proxy measure for the proportion of pregnant women at risk for malaria who receive IPT during pregnancy, at the national level.

Type of indicator	Indicator name	Purpose	Definition	Measurement	Interpretation
outcome	% of households in malaria areas covered by IRS in the past 12 months		Numerator: No of houses/structures in targeted areas that were sprayed with insecticides in the past 12 months Denominator: No of houses/ structures in targeted area		

Appendix 2. Indicator Matrix or logical framework

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Impact	Death rates associated with Malaria: all-cause under-5 mortality rate'	DHS/UNICEF	Every 5yrs	NBS/UNICEF
Impact	Proportion of confirmed new malaria cases in sentinel demographic surveillance sites	Sentinel site reports/HMIS/LQAs	Quarterly	Principal Investigators
Impact	Malaria parasite prevalence in children under five	MIS	Biannually	NMCP/Partners
Impact	Malaria parasite prevalence in pregnant women	MIS	Biannually	NMCP/Partners
Impact	Malaria parasite prevalence in individuals five years and above	MIS	Biannually	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Impact	Prevalence of anaemia in children under five years	MIS	Biannually	NMCP/Partners
Impact	Prevalence of anaemia in pregnant women	MIS	Biannually	NMCP/Partners
Impact	Prevalence of anaemia in individuals five years and above	MIS	Biannually	NMCP/Partners
Impact	Number of cases of uncomplicated malaria (probable and confirmed) disaggregated by age groups	IDSR/Reports	Monthly	Epid/NMCP
Impact	Number of cases of severe malaria (probable and confirmed) disaggregated by age groups.	IDSR/Reports	Monthly	Epid/NMCP
Disease Prevention				
outcome	% of households with at least one ITN/LLIN	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of households with at least two ITNs/LLIN	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of children U5 sleeping under an ITN/LLIN the previous night	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of pregnant women sleeping under an ITN/LLIN the previous night	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of households in selected areas covered by IRS	IRS records	Annually	NMCP
outcome	% of pregnant women attending ANC who receive SP-IPT 2	MIS/Health facility records	Biannually/ quarterly	NMCP/Partners
outcome	% of pregnant women who receive SP- IPT 2	MIS/MICS	Biannually/5 yearly	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Output	Total number of LLIN distributed to end users	Health facility records	Quarterly	NMCP
Output	Number of LLIN distributed through public sector to end users	Health facility records	Quarterly	NMCP
Output	Number of pregnant women who received ITN/LLIN by type of service provider (public and private)	Health facility records	Quarterly	NMCP
Output	Number of health workers trained on LLIN mass campaign	Administrative Records	Monthly	NMCP
Output	Anopheline indoor resting densities	Entomological survey	Baseline/semi-annually	NMCP/Partners
Output	Blood meal index;	Entomological survey	Baseline/semi-annually	NMCP/Partners
Output	Sporozoite rate	Entomological survey	Baseline/semi-annually	NMCP/Partners
Output	Adult survival rate (longevity)	Entomological survey	Baseline/semi-annually	NMCP/Partners
Output	Vectorial capacity	Entomological survey	Baseline/semi-annually	NMCP/Partners
Output	Vector susceptibility status	Entomological survey	Baseline/semi-annually	NMCP/Partners
Process	% of antenatal clinic staff trained in preventive intermittent antimalarial treatment for pregnant women.	Training reports	Annually	NMCP/RH/ Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Process	% of service providers (health personnel, CHW etc) trained in techniques of nets use and/or indoor spraying according to the national policy.	Training reports	Annually	NMCP/Partners
Case Management				
outcome	% of children five years and above plus adults with malaria/fever receiving appropriate treatment	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of U5 children with fever in the last two weeks receiving appropriate treatment within 24hrs (community/health facility)	MIS/MICS	Biannually/5 yearly	NMCP/Partners
outcome	% of women with malaria/fever in the last pregnancy who received appropriate treatment within 24hrs (community/health facility)	MIS/MICS/end-of-project survey	Biannually/5 yearly	NMCP/Partners
outcome	% of U5 children (and other target groups) admitted with severe malaria and correctly managed at health facilities	MIS/MICS	Biannually/5 yearly	NMCP/Partners
Outcome	Percentage of health facilities who treated children <5 with febrile disease with an effective anti-malarial by type of health service (public and private)	HFA	Annually	NMCP/Partners
outcome	Case fatality rate (% of malaria deaths among malaria admission) disaggregated by age group	Hospital Records/MIS	Biannually	NMCP/Partners
Output	Number ACTs utilized by children under five	Health facility records	Quarterly	NMCP

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Output	Number of ACTs received by children under five years through the public sector	Health facility records	Quarterly	NMCP
Output	Number of ACTs utilized by/distributed to persons five years and above	Health facility records	Quarterly	NMCP
Output	Number of ACTs received by persons five years and above through the public sector	Health facility records	Quarterly	NMCP
Output	Number of persons reporting adverse drug reactions due to ACTs to health facilities	Health facility records	Quarterly	NMCP/NAFDAC
Output	Number of persons reporting adverse drug reactions due to SP to health facilities	Health facility records	Quarterly	NMCP/NAFDAC
Output	Number of persons reporting adverse reactions due to ITN/LLINs to health facilities	Health facility records	Quarterly	NMCP/NAFDAC
Output	% of health personnel involved in patient care trained in malaria case management disaggregated by cadre and type of health service (private and public)	Training reports	Annually	NMCP
Output	Number of Role Model Mothers trained on HMM	Training reports	Annually	NMCP/Partners
Output	Number of PMVs trained on HMM	Training reports	Annually	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Output	Number of CSO members trained on case mangement and prevention of malaria	Training reports	Annually	NMCP
Diagnosis				
outcome	% of children five years and above plus adults with malaria/fever receiving a diagnostic test (community/health facility)	MIS/MICS	Biannually/5 yearly	NMCP/Partners
Output	Number of health workers trained on laboratory diagnosis of malaria using Microscope and RDT	Training reports	Annually	NMCP/Partners
Output	Proportion of Health facilities with microscopes	HFA/MIS	Biannually	NMCP/Partners
output	Proportion of health facilities (both Public and Private) with RDTs	HFA/MIS	Biannually	NMCP/Partners
Output	Number of RDTs carried out in public health facilities	HFA/MIS	Biannually	NMCP/Partners
Output	Number of RDTs carried out in private health facilities	HFA/MIS	Biannually	NMCP/Partners
Output	Number of persons five years and above presenting with fever (at public and private health facilities) and tested by microscopy/RDT	HFA/MIS	Biannually	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
BCC				
Outcome	Percentage of mothers/caregivers able to recognize danger signs and symptoms of malaria in children under 5 years.	MIS/MICS	Biannually/5 yearly	NMCP/Partners
Outcome	Number of people reached by mass media activities	MIS/MICS	Biannually/5 yearly	NMCP/Partners
Outcome	Number of people reached by community campaign activities	MIS/MICS	Biannually/5 yearly	NMCP/Partners
Output	No. of billboards erected,	Administrative records	Annually	NMCP/Partners
Output	No. of posters produced and disseminated	Administrative records	Annually	NMCP/Partners
Output	No. of TV slots aired	Administrative records	Annually	NMCP/Partners
Output	No. of Radio spots aired	Administrative records	Annually	NMCP/Partners
Output	No. of community media activities (drama, music) conducted	Administrative records	Annually	NMCP/Partners
Process	No. of Advocacy meetings held	Administrative records	Annually	NMCP/Partners
Process	No. of dialogue sessions held	Administrative records	Annually	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Procurement and Supply Chain Management				
Outcome	Proportion of health facilities reporting no stock out of ACTs for one week or more in the last 3 months	Health facility checklist	Quarterly	NMCP/Partners
Outcome	Proportion of health facilities reporting no stock out of SP for one week or more in the last 3 months	Health facility checklist	Quarterly	NMCP/Partners
Outcome	Proportion of health facilities reporting no stock out of ITNs for one week or more in the last 3 months	Health facility checklist	Quarterly	NMCP/Partners
Output	Number of ITN/LLIN distributed, disaggregated by distribution points (public and private)	Health facility checklist/administrative records	Quarterly	NMCP
Output	No of doses of SP distributed	Health facility checklist	Quarterly	NMCP
Output	No of doses of ACTs distributed, disaggregated by age and by type of health service (private or public)	Health facility checklist	Quarterly	NMCP
Process	Number of RDT distributed	Administrative records	Annually	NMCP/Partners
Process	Number of microscopes distributed	Administrative records	Annually	NMCP/Partners
Process	Percentage of health facilities that adhere to Good Storage Practices (GSP)	Checklist/report	Quarterly	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Input	No of ITNs procured	Administrative records	Quarterly	NMCP
Input	No of doses of ACTs procured	Administrative records	Quarterly	NMCP/Partners
Input	No of doses of SP procured	Administrative records	Quarterly	NMCP
Input	Number of RDT procured	Administrative records	Annually	NMCP/Partners
Input	Number of microscopes procured	Administrative records	Annually	NMCP/Partners
Input	Number of batches/lots of commodities (ACTs, SP, LLINs, and Insecticides) failing Quality Assurance (QA) tests.	Administrative records	Biannually	NMCP/Partners
Partnership and Coordination				
Process	Number of staff receiving training in the past 12 months on programme management	Training reports	Annually	NMCP/Partners
Process	Number of states with functional RBM partners' forum	Supervisory visit	Quarterly	NMCP/Partners
M&E				
Process	Proportion of health facilities submitting timely and complete reports (diagnosis, case management, PSM etc)	Administrative record	Quarterly	NMCP/Partners

Type of Indicator	Indicator	Source	Frequency of collection	Responsible
Output	Number of M&E officers who received training on project monitoring and evaluation	Training reports	Annually	NMCP/Partners

Appendix 3 M&E Matrix

PROCESS/OUTPUT INDICATORS TO BE MONITORED QUARTERLY														
Intervention Areas														**Comments**
	Indicator	**Baseline (if applicable)**			**Year 1 & 2 (2009 & 2010)**									
		Value	**Year**	**Source**	**targets**	**Q1**	**Q2**	**Q3**	**Q4**	**Year 2 Q1**	**Q2**	**Q3**	**Q4**	
Insecticide-treated nets (ITNs)	Number of ITNs distributed through private sector	Unknown			4,666,192		0	-		-			-	To be distributed in phase 2 through routine channels
Insecticide-treated nets (ITNs)	Number of ITNs distributed through public sector	16,557,162			30,072,569		0	-		-			-	To be distributed in phase 2 through routine channels
Indoor Residual Spraying	Number of sechets of IRS insecticides distributed by public sector	Unknown						233,969schts, 506Sps ,4616Prot. Cloth.						
Prompt, effective anti-malarial treatment	Number of ACTs distributed to children under five years through the private sector	Unknown			34,460,414		0	-		2,512,795	4,000,000		6,690,469.3	
Prompt, effective anti-malarial treatment	Number of ACTs distributed to children under five years through the public sector	19,593,835												
Prompt, effective anti-malarial	Number of ACTs distributed to persons five years and above	Unknown					0		0		3,500,0		7,133,3	

treatment	through the private sector				22,550,166			-		-	00		25.0	
Prompt, effective anti-malarial treatment	Number of ACTs distributed to persons five years and above through the public sector	Unknown												
Prompt, effective anti-malarial treatment	Number of cadres of health workers and CSO members trained by private sector	Unknown			10,112		0	674	900	1348	1600		2022	
Prompt, effective anti-malarial treatment	Number of cadres of health workers and CSO members trained by public sector	Unknown												
Home based management of malaria	Number of PMVs and pharmacists trained by private sector	11,400	2008	Training records	7,740		0	2,000	4,000	6,000	6,800		7,740.0	
Home based management of malaria	Number of PMVs and pharmacists trained by public sector													
BCC - Mass media	Proportion of people exposed to the campaigns who can mention at least two malaria preventive measures by private sector	Unknown			85%		0	-		50%				
BCC - Mass media	Proportion of people exposed to the campaigns who can mention at least two malaria preventive measures by public sector	Unknown												
Diagnosis	Number of health facilities with RDTs by private sector	unknown	2008		300	600	720	800	7,400	7,400	7,400			
Diagnosis	Number of health facilities with RDTs by public sector	unknown	2008											
Diagnosis	Number of RDT kits distributed	unknown				544,57	1,263,64	2,701,7	10,100,					

	private sector				54,457	2	6	93	604					
Diagnosis	Number of RDT kits distributed public sector	unknown												
HSS: Leadership and Goverance	Number of staff receiving training in the past 12 months on programme management from public sector	5	2007	Administrative records									10.0	

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