REPUBLIC OF SIERRA LEONE

MINISTRY OF HEALTH AND SANITATION

NATIONAL MALARIA CONTROL PROGRAMME

STRATEGIC PLAN 2009 - 2015

May 2009

TABLE OF CONTENTS

Executive summary

Malaria is endemic in Sierra Leone with stable and perennial transmission in all parts of the country. As such, the entire populace is at risk of developing the disease and malaria accounts for over 40.3% of outpatient morbidity. Malaria is presently the leading cause of morbidity and mortality amongst children under five years of age with a mortality attributed to malaria of 38.3% among children aged five years and below and 25.4% for all ages.

Sierra Leone has developed a strategic plan which covered the period 2004 – 2008. Its assessment shows that there was an important progress made in terms of process and outcome. But to reach the RBM target for 2010, many GAP are still there.

It's for this reason that the current Malaria control Strategic Plan 2009 – 2015 is developed to be used as a tool for the resources mobilization.

The goal of the Strategic Plan 2009 – 2015 is the scaling up for impact to reduce by 50% malaria associated morbidity and mortality from the 2002 baseline by 2015. Specific objectives are as follows:

I. To increase percentage of suspected malaria cases correctly diagnosed and treated from 30.1% to 80% by end of 2015;
II. To reduce severe case fatality by 80% by end of 2015;
III. To increase percentage of pregnant women using IPT2 from 11.8 % to 80% by end of 2015;
IV. To increase percentage of people using prevention methods as ITN, IRS, IVM,… (Specially the children under five years and the pregnant women) from 25.9 % to 80% by end of 2015;
V. To improve malaria control management and partnership including M&E

The National Malaria Strategic Plan (NMSP) 2009-2015 is in alignment with the United Nationals Special Envoy for malaria's call in 2008 for coverage of 100% of population at risk to malaria prevention through public sector by 2010. It is also with in liaise with the Reproductive and Child Health Strategic Plan (RCHSP) of 2008-2010. It is anticipated that attain of these targets will enable Sierra Leone meet the Millennium Development Goals (MDG) 4,5 and 6 of reducing child mortality, maternal mortality and the burden of HIV/AIDS, Tuberculosis and Malaria.

The budget of the Strategic Plan is estimated to cost: 128,365,490 $US

Acronyms

ACTs	Arteminisin-based Combination Therapy
CHO	Community Health Officers
CHWs	Community Health Workers
EHO	Environmental Health Officer
DHMT	District Health Management Team
DPC	Disease Prevention and Control
EDCU	Endemic Diseases Control Unit
EU	European Union
GOSL	Government of Sierra Leone
HRS	Health Systems Research
HIS	Health Information System
HIPIC	Highly Indebted Poor Countries
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
IPT	Intermittent Presumptive Treatment
INGO	International Non-Governmental Organisation
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
KAP	Knowledge, Attitude and Practice
MICS	Multiple Indicator Cluster Survey
MOH&S	Ministry of Health and Sanitation
NEPAD	New Economic Partnership for Africa's Development
MRC	Medical Research Centre
NHMIS	National Health Management and Information System
NRC	National Research Committee
NGO	Non-Governmental Organisation
NMCP	National Malaria Control Programme
NNGO	National Non-Governmental Organisation
PHC	Primary Health Care
PHU	Peripheral Health Unit
PRSP	Poverty Reduction Strategy Paper
RBM	Roll Back Malaria
RH/FP	Reproductive Health/Family Planning
SMCs	Social Mobilization Committees
TBA	Traditional Birth Attendant
UNDP	United Nations Development Programme
UNFPA	United Nations Fund For Population Activities
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
UK-DFID	United Kingdom- Department for International Development
VDC	Village Development Committees
VHW	Village Health Worker
WHO	World Health Organisation
WB	World Bank

INTRODUCTION

Malaria continues to be a major global health problem, with over 40% of the world's population at risk - more than 2400 million people exposed to varying degrees of malaria risk in some 100 countries. Over one million people die annually from malaria and 70% of these deaths are among the children under-five years. Unfortunately, 90% of these live in Sub – Saharan Africa.

Malaria is endemic in Sierra Leone. It is presently the leading cause of morbidity and mortality amongst children under five years of age. It is the first on the list of Government priority diseases. The entire populace is at risk of developing the disease accounting for over 40.3% of outpatient morbidity, but the most vulnerable groups include under-five year old (U5) children, pregnant women, refugees and returnees. Malaria is a major threat to the socio-economic development of the country with an estimated 7-12 days lost on the average per episode of malaria. According to the National Strategic Plan to Scale-Up Community-based interventions for malaria control in Sierra Leone, any fever in children should be regarded as "if it were malaria and immediately giving the child a full course of recommended anti-malarial tablets. Children with severe malaria symptoms, such as fever or convulsions, should be taken to a health facility."[1]

Several control efforts, plans and strategies such as case management, minimal vector control, among others, have been used to address the malaria problem and coordinate control efforts of various partners. The Ministry of Health and Sanitation (MOHS) with technical support from WHO in the context of the health action plan, established the National Malaria Control Programme in 1994 within the Disease Prevention and Control Division. Before 1994, there was no programme to coordinate malaria control activities.

In response to the high morbidity and mortality among children, the MOHS has endorsed the Integrated Management of Childhood Illnesses (IMCI) programme in the country, and several senior officers trained at international level. There is also a link between NMCP and several other related programmes such as Integrated Disease Surveillance and Response (IDSR) Reproductive Health, Expanded Programme on Immunization / MCH, Nutrition, School Health among others.

Developing a national strategic plan to control malaria in an integrated disease control approach is a right step in the right direction for Sierra Leone to optimise the use of available resources.

[1] Multiple Indicator Cluster Surveys (MICS), Sierra Leone, 2005, p.54

CHAPTER 1

COUNTRY PROFILE

1.1 Overview

1.1.1 Geographical situation

Sierra Leone is located on the West Coast of Africa, between latitude 8 30 ^{o}North and longitude 11 – 30^{o} West. It is bounded by Guinea on the North and East, and Liberia on the South. The Atlantic Ocean forms a beautiful coastline to the south and west of the country.

1.1.2 Climatological data

The country has a typical tropical climate with temperature ranging from 21^{o}C to 32^{o}C with a mean daily temperature of 25^{o}C. It has two major seasons; wet season (May to October) and dry season (November to April) with heavy rains in July/August. It has an average rainfall of about 3200mm annually. Relative Humidity is high ranging from 60 to 90%. (Annual Statistic Digest 2001)

1.1.3 Ecosystems, environmental data

The country has a varied relief ranging from coastline swamps, through inland swamps and rain forest to one of the highest mountains (Bintumani is about 2200m) in West Africa. The vegetation is mainly secondary palm-bush, interspersed with numerous swamps that are mostly cultivated for rice. These swamps provide ideal breeding places for the Anopheline vectors of malaria. Moreover, the capital city Freetown has several mangrove swamps, which provide the breeding sites for *Anopheles melas* mosquitoes, which is one of the major vectors of malaria besides *gambiae* and *funestus*.

1.1.4 Demographic and Health information:

Basic demographic data including vital statistics are as shown in Table 1 below. It also shows key health indicators reflecting limited access to qualitative health care services. These are consequences of the complex emergencies the country has found itself over the years. Remarkable improvement is expected in the years ahead as the country continues to move into a development phase.

Table 1: Main demographic features and Health indices of Sierra Leone:

Indicator	**Latest Estimated Value** (See sources*)
Population: Total	6,440,053 (July 2009 est.) [4]
Population: under five years	1,101,249 (17.1%)
Population: pregnant women	309,123 (4.8%)
Population: Women in Child Bearing Age Gp.	1,552,053 (24.1%)
Female population	51.6 % [4]
Male population	48.4 % [4]
Life expectancy at birth	42 years of age [3]
Population growth rate	3.21 %
Crude birth rate	46 per 1000 population [2]
Crude death rate	22 per 1000 population [3]
Average annual growth rate of urban population	4.4 % [3]
Total fertility rate	5.1 births per woman [2]
Neonatal mortality rate	36 per 1,000 live births [2]
Infant mortality rate	158 /1,000 live births [1] 89 per 1,000 live births [2]
Under five mortality	267/1,000 live births [1] 140 deaths per 1000 live births [2]
Maternal mortality ratio	495 deaths per 100,000 live births [1]
Ante-natal care from a health professional (ie. Doctor, Nurse, Midwife, or MCH Aide)	86.9 % of women who had a live birth in the past five years
Skilled attendant at delivery	43.0 % [1]
Delivered in health facility	19.0 % [1]
Low birth rate (Birth weights below 2.5kg)	29.0 % [1]
Underweight prevalence in under five children: - 2 SD - 3 SD	 21.1 % [2] 7.1 % [2]
Stunting prevalence in under five children: - 2 SD - 3 SD	 36.4 % [2] 20.6 % [2]
Wasting prevalence in under five children: - 2 SD - 3 SD	 10.2 % [2] 4.2 % [2]
Anaemia among children under five	75.9 % [2]
Anaemia among pregnant women	45.8 % [2]
Children under five who slept under an Insecticide Treated Net (ITN) the night before the survey	28.0 % [2]
Pregnant women age 15-49 who slept under an Insecticide Treated Net (ITN) the night before the survey	27.7 % [2]
Last births in the five years preceding the survey for which the mother took antimalarial drugs for prevention during pregnancy	50.1 % [2]
Last births in the five years preceding the survey for which the mother got Intermittent Preventive Treatment (IPT) during an antenatal visit	11.8 % [2]
Children under five with fever (in two weeks preceding the survey) who took antimalarial drugs	30.1 % [2]
Children under five with fever (in two weeks preceding the survey) who took antimalarial drugs the same day/next day after developing fever	15.1 % [2]
Use of Oral Rehydration Therapy in children under five with diarrhea	73.4 % [2]

Children under five with symptoms of ARI who sought treatment from a health facility/provider (excludes pharmacy, shop, and traditional practitioner)	45.8 % [2]
Children under five with fever who sought treatment from a health facility/provider (excludes pharmacy, shop, and traditional practitioner)	43.5 % [2]
Exclusive Breastfeeding (0-5 months children)	11.2 % [2]
Complementary foods (0-5 months children)	32.8 % [2]
Households that consume adequate iodized salt	45.0 % of Households [1]
Children 6-59 months of age who received vitamin A supplement in last six months	49.0 % [1]
Access to basic health care (actual)	38%
Urban dwellers	40.2%
Rural dwellers	59.8%

***Sources:**
[1] UNICEF, Multiple Indicator Cluster Surveys (MICS), Sierra Leone, 2005
[2] USAID, Demographic and Health Survey (DHS), Draft Copy, Sierra Leone, 2008
[3] UNICEF, The State of the World's Children, 2009
[4] CIA, The World Factbook, Sierra Leone, 2009 - https://www.cia.gov/library/publications/the-world-factbook/print/sl.html

From the projection results, it is clear that population growth will continue to be a very critical factor in affecting development interventions. The population will continue to be youthful since persons 15 to 24 will constitute 17.3 percent and 18.5 percent of the projected population in 2005 and 2014 respectively. Also persons 15 to 24 and 15 to 35 will constitute 30.2 percent and 31.3 percent of the projected population in 2005 and 2014 respectively. However, persons 65 years and over will slightly decline from 4.20 percent in 2005 to 3.98 percent in 2014. The youthful population structure will continue to put pressure on existing educational services and pose a major challenge for service providers.

The implementation of national development strategies and frameworks like the Vision 2025 and the SL-PRSP are therefore bound to be affected by demographic concerns. The projections show that urbanisation levels will continue to increase and demand for quality housing, schooling and other social services especially in Freetown should be a concern for governments both at the national and local levels.

Also the projection shows that a large army of young people will continue to enter the working age and become economically active with all the potential consequences for youth empowerment.

1.1.5 Type of farming practice

The Economy of Sierra Leone is built around two major activities – Agriculture and Mining. About 80% of its population depends largely on subsistence farming and fishing for a livelihood. Rice, Palm oil, cocoa, ginger are the mainstay of the development of the economy from 1950 – 80's. Rice accounts for about 30-35% of the GDP. Export minerals like Diamonds, Bauxite, Rutile, Iron Ore and Gold account for more than 70% of the country's total foreign exchange earnings. In the 1950's up to the 70's, diamonds and iron ore were the factors responsible for growth of the economy.

1.1.6 Socioeconomic indices

In the last two years since the country had a stable peace, the education sector has been strengthened. The Ministry of Education recorded in 2001 about 2,704 primary schools (both private and government assisted schools), 246 Secondary schools, 6 teacher colleges, and 1 University, 174 technical and Vocational Institutes.

Female literacy level is 19%. There are many NGOs and female groups promoting the education of the girl child in the country. English is the National language in the country.

Media coverage is quite good, as radio stations have been established in all the four regions. TV coverage is available in the Western Area and part of the Southern province. Most of the houses in the capital are modern constructions some with window nettings while in the rural setting most of the houses are made of mud and zinc with no nets on their windows.

Sierra Leone with a liberal economy has suffered prolonged deterioration and accompanying low standards of living due to war related activities since 1991 and has caused extensive damage to an already inadequate economic and social infrastructure leading to high unemployment levels and declining per capital incomes. The extent of poverty among the population, particularly the rural segment, is manifested in the Human Development Index 2008, which ranks the country as one of the least developed nations in the world.

Allocation for health in the National budget still remains less than 7%. However, the Ministry of Health current expenditure as % of GDP in 2001 was 1.7%. Programmes in the country to alleviate poverty include:

- NaCSA (National Commission for Social Action)
- Social Action for Poverty Alleviation (SAPA) programmes,
- International Monetary Fund (IMF) approved an economic programme in the context of the Emergency Post Conflict Assistance Facility in December 1999.
- The World Bank's Economic Rehabilitation and Recovery Credit to assist Government in restoring protective and economic security, and supported the Integrated Health Sector Investment Project (IHSIP) has metamorphosed into Health Sector Reconstruction and Development Project.

National Development Initiatives

- Poverty Reduction Strategy Paper (PRSP)
- Highly Indebted Poor Countries (HIPIC)
- New Economic Partnership for African Development (NEPAD)

1.2 Institutional framework for Malaria control

1.2.1 Organisation of the ministry of health

Goals and objectives of the health sector: According to the National Health Policy, the overall goal of the health sector is to maintain and improve the health of all Sierra Leoneans resident within the country. The Government of Sierra Leone is committed to pursing such a goal in an equitable manner. It will work towards ensuring that all citizens have access to basic health care. It has special responsibility to ensure the health of those citizens who are particularly vulnerable as a result of poverty, the results of conflict, gender or specific health problems. The Government of Sierra Leone also has responsibilities for ensuring the provision of adequate public health services including sanitation for food safety, and for specific communicable diseases.

Technical policies and guidelines exist for a number of these health priorities, which set specific objectives, targets, and strategies and where appropriate treatment protocols. Additional technical

policies will be developed in each of the remaining priority areas and the existing ones updated as necessary.

Health care delivery: There is a strong history of Primary Health Care (PHC) within the health sector of Sierra Leone. The Government remains committed to this approach with an emphasis on primary care services and prevention as cost-effective strategies. As such the delivery of health care will be based on the following principles:

- The development of an integrated health system, which has clear and inter-linked roles for the primary, secondary and tertiary levels of care
- The strengthening of the referral system between the levels of care to ensure the efficient use of different levels of specialised and appropriate feedback between health care professionals
- The importance of ensuring involvement of communities, and the voiceless within these communities, in decisions about health
- An emphasis where appropriate on preventive strategies

The Ministry of Health and Sanitation is responsible for ensuring adequate public health programmes for priority diseases including malaria. As part of the decentralisation process to which the government is committed current vertical programmes will be integrated, as far as is technically possible, within the district services. All health care providers, both public and private, will be expected to conform to the specific technical policies and treatment protocols.

Health education, health promotion and intersectoral activities: As part of the primary care philosophy to which the Government is committed, emphasis will be placed on health education and health promotion activities. This will occur at all levels of the health system. This will include activities aimed at changing positively the life style of individuals and communities. It will also include advocacy activities aimed at promoting policies in other sectors of the economy, which are positive to health, and discouraging or legislating against activities that lead to a reduction in health development.

Role of different agencies in the health system: The Government of Sierra Leone recognises the important services provided by many of these agencies and will work towards ensuring complementary and positive relations between the different agencies.

The role of the **Ministry of Health and Sanitation Headquarters** is primarily to provide policy and planning leadership (both strategic and technical) for the whole sector, to ensure an equitable financing and resource allocation system for the health sector, to provide national leadership on health promotion and intersectoral collaboration including any appropriate legislation, and to regulate all health care providers to ensure quality standards are set and maintained.

Where it is considered that **an institution in the NGO or private sector** is already providing, or is capable of providing, a service on behalf of government, at an appropriate level of quality and cost, arrangements will be explored for contracts and subventions for such services.

Private for profit providers will also be required to register with the Professional Councils. As for-profit organisations, they will not be generally eligible for government support. However, where they are seen to be providing a service on behalf of government (for example, in the field of childhood immunisation) they will be eligible for support in terms of vaccines and training.

Traditional practitioners including TBAs have a long history in Sierra Leone. The Government of Sierra Leone recognises the important services provided by some of these, but is also concerned that others may unknowingly not be providing services in the best interests of their patients. A code of practice will be drawn up which will, inter alia, specify the relationship between such practitioners and the District Health team.

1.2.2 Human resources

Human resources for the health sector: There is a critical shortage of staff from a range of health professions currently working in the health sector and particularly in the remote districts (See Table 3).

Table 3: Key Human Resources in Health Sector

No	Cadre	2006	2007	Vacancy	Gap
1	Medical Officers (G.Ps	88	64	300	236
2	Paediatricians	3	5	17	12
3	Dentists	8	8	20	12
4	Obstetricians /Gynaegologists	7	7	15	8
5	Public Health Specialists	22	21	30	9
6	Surgeon Specialists	8	8	30	22
7	Physician Specialist	5	7	30	23
8	Psychologists	1	1	7	6
9	Haematologists	1	1	8	7
10	Midwives	57	87	200	113
11	Clinical Nurses (RN,NS,WS/O	202	225	600	375
12	Nurse Anaesthetics	11	11	70	59
13	MCHAides	980	1,228	1,500	272
14	Pharmacists	14	17	30	13
15	Pharmacy Technicians	120	130	300	170
16	Community Health Officers				

Source: ***Human Resource Development Plan 2004-2008***

1.2.3 Steps taken by Government and other Development Partners to control Attrition in MoHS.

A. South-South Doctors are presently in Country;

- 9 - Cuban Doctors.
- 1 - Nigerian Doctor.
- Gov't. contemplating on re-negotiating with South-South to bring more Professionals (there is a quota for 30 more - Specialist Doctors and Specialist Nurses).

B. MoHS has reviewed existing Schemes of Service and has developed new ones for newly Established Posts (Nurse Anaesthetist, Sen. Nurse Anaesthetist, Principal Nurse Anaesthetist and Chief Nurse Anaesthetist) to ensure Career Path and Progression, which serve as a motivation factor

C. CORDAID-Funded 13 Personnel in various Tutorial Training Programmes:

Nurse Tutors.
Midwifery Tutors.
Lab. Tech. Tutors.

1. Government has endorsed the payment of the following allowances:

- 30% of Basic Monthly Salary as Housing Allowances to those not in Government Quarters in W/Urban and Dist/H/Quarter Towns.
- 20% of Basic Monthly Salary as Housing Allowances to others out side W/Urban and Dist/H/Quarter Towns.
- 10% of Basic Monthly Salary as Hard-to-Go Area Allowances to those out side W/Urban and Dist/H/Quarter Towns.
- 10% of Annual Salary as Leave Allowances to cut across.
- 2½.% of Basic Monthly Salary as Night Allowances.
- That Bonding after Local or External Funded Training should be equal to period of Training.
- Car Loan to be provided to Specific Category of Personnel.
- Government has endorsed the establishment of Medical and Health Services Commission in order to facilitate the absorption and promotion of Health Professionals.

1.2.4 Priority programmes being implemented and their synergy with malaria control

National Health Priorities:

These have been set on the basis of a number of criteria, namely: the severity of the disease in terms of its condition to the overall burden of disease in the country; distribution of the health problem within the country as a national problem; feasibility and cost-effectiveness of interventions concerning the health problem; Public expectations concerning the problem; and Compliance with international regulations.

On the basis of these criteria, **malaria ranks number one** among the current national priority health problems. Others are HIV/AIDS, TB, Reproductive health, including maternal and neonatal mortality, Sexually Transmitted Infections (STIs), Acute Respiratory Infections, Childhood immunisable diseases, Nutrition-related disease, water and sanitation-borne diseases, epidemic prone diseases including Lassa fever and Yellow fever, non-communicable diseases and mental health disorders.

1.3 Overview of the Partnership framework

1.3.1 Partners involved in malaria control

National Level:

RBM Partnership Committee (RBMPC) which will be supported and strengthen by RBM Technical Committee, RBMTC (formerly called RBM Task Force). The RBMTC will have the following technical subcommittees:

- Disease Management
- Multiple Disease Prevention
- Advocacy, IEC and Social Mobilization
- Partnership strengthening and Programme Management
- Operational Research
- Monitoring and Evaluation

District Level:

The District Health Management Team (DHMT) will handle all district level coordination of RBM activities.

Chiefdom Level:

The Chiefdom Development Committee will handle all coordination of RBM activities at the chiefdom.

Village Level:

The Village Development Committee will be in charge of coordination of coordination of RBM in the Villages.

Proposed Terms of Reference for the Partnership Structures:

Mobilise and allocate resources.
Develop advocacy tools for resource mobilization
Monitoring and Evaluation
Matching of tasks with comparative advantages.
Identification of new and non-traditional partners
Creating and overseeing the work of various sub committees.
Ensure active community participation at all levels

Baseline Profile of Existing RBM Partnership:

Ministry of Health and Sanitation: Overall provider of health care services.

Multilateral/Bilateral agencies: World Bank: Financial support, African Development Bank: Financial support

UN agencies:

WHO: Capacity building and technical support.

UNICEF: Community based activities and ITN activities.

World Bank: Infrastructural development and capacity building, ITN procurement, storage and distribution, etc

UNDP – part of the founding fathers of RBM

NGOs:

IMC: ITN distribution, Support to IPT activities, Case management, at primary and secondary level, Infrastructure Development, distribution of essential drugs and support to MCH/FP and EPI.

MSF (Belgium, Holland, and France): Drugs and Case management and Operational research (e.g. efficacy study)

World Vision Int'l Infrastructure Development, Capacity building, essential drugs distribution and support case management, ITN distributions

SLRC: Infrastructure development, ITN distribution, support primary health care and capacity building at community levels.

CCF: Distribution of ITN, support case management, support capacity building at PHU and community levels, Infrastructure Development and support IEC activities.

Concern World Wide ITN distribution

Goal ITNs distribution.

MENTOR- ITM evaluation at the community level through insecticide impregnated plastic roof sheeting.

TERRA TECH Infrastructure development and provision of drugs.

Action for Development -Sierra Leone: Activities include ITN Social Marketing and capacity building.

CADHI: Environmental management and social mobilisation

CHEP: Community mobilisation.

Rotary International: Health promotion and ITN supply and distribution

CARE: Interested in Social Marketing of ITNs supply and distribution

UNHCR: Health care services delivery and ITN distribution in camps

UMCOR: Health facility support, IEC and ITN supply and distribution

Potential Partners Not Actively Supporting / Involved In /or Integrated With RBM Activities:

Intra-Sectoral: Focus on an integrated approach: DPC, IMCI, EPI, IEC, RH, IDSR School Health, HIV/TB/MAL Global Fund, Environmental Health, Drugs and Supplies (Pharmacy Board).

Intersectoral: Agriculture, Finance, MODEP, Education, Information and Broadcasting.

Academic /Research Institutions: USL, MRC, SLMDA, Nurses Association

Public-Private Sectors: Chamber of Commerce, Sierra Leone state Lottery, Banks, Pharmacies, Private Clinics/hospitals, Private companies (Sierra Rutile, Branch Energy, Rex Mining company etc).

***Bilateral/Multilateral*:** EU/ECHO, USAID, DIFID.

Diplomatic Missions: All embassies, high commissions and consulates

Community: Civil society, VDCs, Traditional healers, patent medicine sellers (PMS), TBAs, Faith organisations, women's groups (FAWE, Women's cooperatives).

1.3.2 Coordination with other sectors of development

PGA's Project on Malaria Policy and Advocacy:

Project Objective:

PGA will commence a two year project on Malaria Policy and Advocacy with a Pilot Workshop in Sierra Leone. PGA will organzie two additional regional seminars in Liberia and Senegal. PGA's project will mobilize political leadership/will to develop new policies and programmes, with a special focus on West African States in order to fight malaria and advance the MDGs.

Project Justifications:

PGA's project will include multiple stakeholders and will target legislators from endemic and include legilators from non-endemic countries to engage new partners and encourage collaboration through follow-up mechanisms coordinated by PGA.

PGA proposes to implement a two-year Malaria Policy and Advocacy Project for West Africa to address the role of legislators in the implementation of national strategies to roll back malaria. The project will include workshops in three endemic countries of the West African Regional Network (WARN), Sierra Leone, Liberia and Senegal and will focus on legislative advocacy for Sierra Leone's response to malaria control and the free distribution of LLINs to Under five years children, Adolescence children and Pregnant women in the form of a campaign as a model. Sierra Leone's Ministry of Health has committed to malaria as the number one priority disease.

1.3.3 Contribution of the private sector

Universat Logistics providing opportunity for other age groups who are not priority targets to access LLINs under social marketing.

Pharmaceutical Business Association import antimalarial commodities including medicines to complement government's effort in reducing the burden of malaria.

There is quite a good number of private clinics all over the country (private- for -profit and private for -non -profit that consult and treat good numbers of malaria cases every month. This includes the most vulnerable groups; children under five and pregnant women. Preventive and control activities are also

carried out like administration of IPTp to pregnant women and distribution of LLINs. IEC/BCC messages are also disseminated during clinic sessions.

1.3.4 Collaboration with countries of the sub-region

PGA's Project on Malaria Policy and Advocacy:
Project Objective:
PGA will commence a two year project on Malaria Policy and Advocacy with a Pilot Workshop in Sierra Leone. PGA will organzie two additional regional seminars in Liberia and Senegal. PGA's project will mobilize political leadership/will to develop new policies and programmes, with a special focus on West African States in order to fight malaria and advance the MDGs.

Project Justifications:

PGA's project will include multiple stakeholders and will target legislators from endemic and include legilators from non-endemic countries to engage new partners and encourage collaboration through follow-up mechanisms coordinated by PGA.
PGA proposes to implement a two-year Malaria Policy and Advocacy Project for West Africa to address the role of legislators in the implementation of national strategies to roll back malaria. The project will include workshops in three endemic countries of the West African Regional Network (WARN), Sierra Leone, Liberia and Senegal and will focus on legislative advocacy for Sierra Leone's response to malaria control and the free distribution of LLINs to Under five years children, Adolescence children and Pregnant women in the form of a campaign as a model. Sierra Leone's Ministry of Health has committed to malaria as the number one priority disease.

CHAPTER 2

MALARIA CONTROL UPDATE

2.1 Epidemiology

2.1.1 Plasmodium species concerned

Malaria is endemic with highly seasonal variation in Sierra Leone. Transmission is intense during the rainy season (June – October) with most of severe cases occurring in July and November. *Plasmodium falciparum* is the dominant parasite mainly responsible for all severe cases and over 95% of clinical attacks, however, other cases of clinical malaria are caused by *Plasmodium malariae*

2.1.2 Main vectors

Malaria transmission is perennial and the predominant vector is *Anopheles gambiae s.l., others are Anopheles funestus and Anopheles melas. Evidence based vector control implies sound and up to date knowledge on the local vectors, including vector species,* biology, ecology, genetics, spatial and temporal variation of vector density and vector susceptibility to insecticide.

2.1.3 Population exposed and dynamic of transmission

Table 5. Population at risk of malaria by epidemiological stratification

Indicator	Number	Percentage	Source (and year)
Population living in stable malaria areas		100%	RBM
Population living in unstable malaria areas	0		
Population living in malaria free areas	0		

2.1.4 Estimation of vulnerable groups (pregnant women, children)

The current population of 2009 is 5,607,930.
The percentage of vulnerable groups (pregnant women and children under 5 years) is 22.1% of the total population. I.e pregnant women are 4.4 % and children under 5 is 17.7% of the total population.

2.1.5 Resistance to antimalarials and insecticides

The Ministry of Health and Sanitation and partners conducted a study on chloroquine (CQ), sulfadoxine–pyrimethamine (SP), and Amodiaquine (AQ) in selected districts which was validated by MOHS and WHO in July 2003 as shown in the table below:

Drug Efficacy Test Validated Results (July 2003)

Antimalarial Drug	Clinical Cure Rate (%) by Day 14	Failure Rate (%) by Day 14	Failure Rate (%) by Day 28	PCR failure rate result by day 14
CQ	20 - 60	40 - 80	67%	39.5 - 78.8
SP	72 - 98	2 - 28	50% in 1 site	17.6 - 46.1
AQ	92 - 100	0 – 8	31	Not available

Based on the validated drug efficacy results, a consensus meeting was held by MOHS and Partners in March 2004. The merits and demerits of Artemisinin - based Combination Therapy (ACT) were extensively discussed; a decision was taken to adopt the use of ACTs and to review the current antimalarial treatment policy.

2.2 Background to malaria control

2.2.1 Milestones in the country's initial efforts

It is known that when the early European explorers visited the country, so many of them died of the disease that they nicknamed Sierra Leone as "the white man's grave". Ross and his team embarked on a massive mosquito control campaign, by filling up the breeding places and clearing the drainages. The first malaria prevalence survey was conducted in the country in 1963 with WHO support. An overall 31.4% malaria prevalence and this rose to 65% during the 1977/79 national malaria metric survey conducted by the Ministry of Health in collaboration with WHO (WHO report 1980).

Several control efforts, plans and strategies such as case management mainly with chloroquine (CQ) , minimal vector control, among others, have been used to address the malaria problem and coordinate control efforts of various partners. The Ministry of Health and Sanitation (MOHS) with technical support from WHO in the context of the health action plan established the National Malaria Control Programme in 1994 within the Disease Prevention and Control Division. Before 1994, there was no programme to coordinate malaria control activities.

Malaria Control is a major component of the revised National Health Plan. The NMCP is headed by a Manager, Programme Administrator, ten Technical staff, one Finance Officer, twelve support staff and two secretaries. The mandate is to plan, facilitate the implementation, coordination, supervision, and monitoring of malaria control activities in an integrated disease control approach. MOHS has a specific budget line item for Malaria that supports the implementation and monitoring of various control interventions such as ITNs, Prompt and appropriate management of cases. To promote partnership, there is a broad based RBM Task Force Committee at the national level while there is District Health Management Team at the sub-national levels.

2.2.2 Strategies already tested and overall results

The National Malaria Control Strategic Plan 2004-2008 had defined the following key targets to be achieved during the 5 years of its operation:

1. Reduced malaria morbidity of under fives from 47% to 35% by 2008
2. Reduced malaria mortality of under fives from 38% to 29% by 2008
3. Reduced malaria morbidity of pregnant women from … % to …% by 2008
4. Reduced malaria mortality of pregnant women from 11% to 7% by 2008
5. At least 30 % of U5s sleep under ITNs by 2008.
6. At least 40% of pregnant women sleep under ITNs by 2008.
7. At least 60% of pregnant women receive IPT by 2008.

Progress towards these targets as well as shortcomings and challenges have been assessed during several surveys like CDC Atlanta 2007, MICS 2005, DHS 2008.

These, supplemented by additional data where available, form the basis for the following summary of progress for the strategies and interventions defined in the last strategic plan.

The table below summarizes the achievements with respect to the core malaria indicators.

ABUJA TARGET: 60% of malaria patients are diagnosed and treated with effective Antimalarial medicines, e.g. Artemisinin-based Combination Therapy (ACT) within one day of the onset of illness (2010)				
OBJECTIVES	INDICATOR	BASELINE	TARGETS (2008)	ACHIEVEMENT
To reduce the malaria morbidity and mortality among the under fives by 25 % by the end of 2008	% malaria morbidity among under fives at health facility level (routine data)	47%	35%	33.3% (Routine data 2007)
	% children that reported fever in previous 2 weeks	N/A	Not set	39.3% (CDC pop based survey 2007)
	% of those children with fever that sought treatment and received an ACT in the previous 2 weeks	N/A	Not set	42.3% (CDC pop based survey 2007)
To increase access for early diagnosis and prompt treatment of all	% of those children with fever who sought treatment in previous 2 weeks	N/A	N/A	85.3% (CDC pop based survey 2007)

malaria cases to 60% by 2008.				
	% of U5s affected by malaria having access to prompt, appropriate, and affordable treatment within 24 hrs at community level (through survey)	21.7% (Chloroquine)	60%	10% (MCS 2007 in 8 districtsACTs)

ABUJA TARGET : At least 60% of those at risk of malaria, particularly pregnant women and children under 5 years of age, should benefit from suitable personal and community protective measures such as ITNs by 2010.				
OBJECTIVES	**INDICATOR**	**BASELINE**	**TARGETS (2008)**	**ACHIEVEMENT**
To increase the % of children under five years sleeping under Insecticide treated Nets (ITNs).	% of children under five sleeping under ITNs. (survey)	6.6%	30%	55.6% CDC population based survey 2007
To increase the % of pregnant women sleeping under Insecticide treated Nets (ITNs).	% of pregnant women sleeping under ITNs. (survey)	2%	40%	49.7% CDC population based survey 2007
To attain 60% coverage of pregnant women receiving IPT by 2008.	% of pregnant women receiving IPT at Antenatal care clinics (routine data)	0%	60%	11.8% DHS 2008

2.3 Current situation of malaria control

2.3.1 Objectives, strategies and expected results

2.3.1.1 Objectives:

- General objective:

To reduce malaria morbidity and mortality by 25% in all age groups in the 13 districts of Sierra Leone by 2008.

- Specific objectives
  - To reduce the malaria morbidity and mortality of the U5 children in Sierra Leone by 25% by the end of 2008.
  - To reduce the malaria morbidity and mortality among pregnant women in Sierra Leone by 35% by the end of 2008.

2.3.1.2 Strategies:

- Review of Malaria Treatment Policy to consider the following issues:
- Improving Access
- Capacity Building and Quality of Performance of Health Providers
- Support Systems as part of the Implementation Strategies

2.3.2 Intervention frameworks

1. Disease Management
2. Multiple Disease Prevention
3. Advocacy; and Information, Education, Communication (IEC) and Social Mobilization
4. Partnership strengthening and Programme Management
5. Operational Research
6. Monitoring and Evaluation

Equipments

Table 6: Equipment provided

N°	EQUIPMENTS PLANNED	NUMBER PLANNED	NUMBER ACHIEVED	YEAR ACHIEVED
1	Stapler (Giant)	1	1	2005
2	Paper Punch	5	5	
3	Fax Machine	1	1	
4	Laptap and accessories – Dell 100L	1	1	
5	Desktop computer and Accessories	3	1	
6	Photocopier Xerox	1	1	
7	Scanner: Canon	1	1	
8	Digital Camera	1	1	
9	Printer Canon Laser Jet	2	2	
10	Toyota Landcruiser	3	3	
11	Toyota Hilux	2	2	
12.	Generator 17 KVA	1	1	
13.	Honda XL Motor Bikes	3	3	
14.	Mercedes Benz Truck	1	1	
15.	Vastro Dell Computer desktop	1	1	
16.	Refrigerator	3	3	
17.	Water dispenser	2	2	2006
18.	Executive Desk with extension	1	1	
19.	Executive Swivel Chair	1	1	
20.	Computer Table	1	1	
21.	AC- Split Unit	1	1	
22.	Steel Cabinets	5	5	
23.	Steel Cupboards	1	1	
24.	Carpet Hoover	1	1	
25.	Office Refrigerator	2	2	
26.	Secretary Swivel Chair	1	1	
27.	Conference Table	1	1	
28.	Office Tables	12	12	
29.	Up-right Chairs	12	12	
30.	Visitor Chairs	50	50	
31.	Settie Chairs with table	4	4	
32.	Table	1	1	
33.	Video camera	1	1	2007
34.	LCD Projector Stand	1	1	
35.	LCD Projector	1	1	
36.	Flipchart stands	3	3	
37.	Board	2	2	
38.	Pinboard	1	1	
39.	Office Tables	15	15	
40.	Dell computer	4	4	
41.	Dell Laptop Computers	4	4	
42.	Canon Desktop Photocopier	1	1	
43.	Dell LCD Projector	1	2	
44.	Toyota Landcruiser	4	7	

Environment of work of the NMCP:

The staff of the NMCP is located in a new building with 15 offices and a meeting for 30 persons.

Equipment of the building was completed by the Global fund Round 7.

It's important to mention that the NMCP built storage for stocks of Drugs and ACTs

2.3.3 Main achievements

2.3.3.1 Case management

About 12% of health care providers gave correct dosage of antimalarial drugs. Only about 11.5% of health workers are trained in malaria case management within the past two years. Apart from the core group, no other health worker has been exposed to IMCI training.

About half (56%) of the health facilities are fully functional. Laboratory support for diagnosis of malaria is poor. Health facilities are poorly staffed and personnel poorly motivated. Treatment guidelines are available but inadequate to cover all health facilities. Referral networks and System for monitoring and evaluation are poorly developed. Funding for malaria control in 2004 showed an increase of 31% over that of 2002. Although the actual amount allocated may be relatively low, this trend is a demonstration of Government commitment in accordance with the Abuja Declaration.

No anti-malarial drugs are manufactured locally. The inappropriate use of parenteral anti-malarial drugs is widespread.

% of those children with fever that sought treatment and received an ACT in the previous 2 weeks, 42.3% (CDC pop based survey 2007)

% of U5s affected by malaria having access to prompt, appropriate, and affordable treatment within 24 hrs at community level (through survey), 10% (MICS 2007 in 8 districts – ACTs)

2.3.3.2 Malaria in pregnancy

Intermittent Preventive Treatment for pregnant women (IPTp) using Sulfadoxine Pyrimethamine (SP) was adopted in the country in March 2004 during a national consensus meeting and began to be implemented in mid 2005.

The baseline survey conducted in 2005 revealed that the IPT usage rate was low about one in five mothers (22%) had it in the last pregnancy and about 19% took at least 2 doses. 42% of pregnant women took 2 doses of IPT (Routine data collected from Peripheral Health Units in the eight Global Fund supported districts - Jan-March 2007).

% of pregnant women receiving IPT at Antenatal care clinics (routine data) 42% Routine Data 2007 but in (DHS, 2008) 11.8%

Actions to be taken include the following:

- Provide IPT drugs during PHU community outreach sessions (pregnant women support groups, etc.) in which TBAs will get involved
- PHU staff to work hand in hand with TBAs to sensitize pregnant women to visit PHU or to attend community outreach sessions for ANC where pregnant women are given IPT drugs

2.3.3.3 ITN promotion and using

ITNs reduce by 50% the incidence of clinical malaria in children and 10-15 folds malaria transmission (MRC 1998). With respect to progress on prevention, the ITNs distribution has increased during the past years. Free ITN distribution has proved successful in increasing coverage of the most vulnerable populations. Distribution is linked to ANC/EPI, or national child immunisation campaigns.

The Global Fund Round 7 Grant won and activities already commenced

One of its objectives is to increase the use of ITN to achieve the Abuja target of 80% among pregnant women and children under five years of age from 2007 to 2012

Most of the LLINs currently in use by the under five children and pregnant women were distributed mostly in late 2006 and early 2007 through a multi-sector collaborative effort (Measles-Malaria campaign) with significant contribution by the Canadian Government, Global Fund, UNICEF European Union and World Bank

% of households with at least one insecticide treated net (ITN)*: 36.6%

% of pregnant women sleeping under ITNs. (survey) From 2% in 2004 to 27.7% (DHS, 2008)

% of children under five sleeping under ITNs. (survey) From 6.6% in 2004 to 25.9% (DHS, 2008)

2.3.4 SWOT analysis

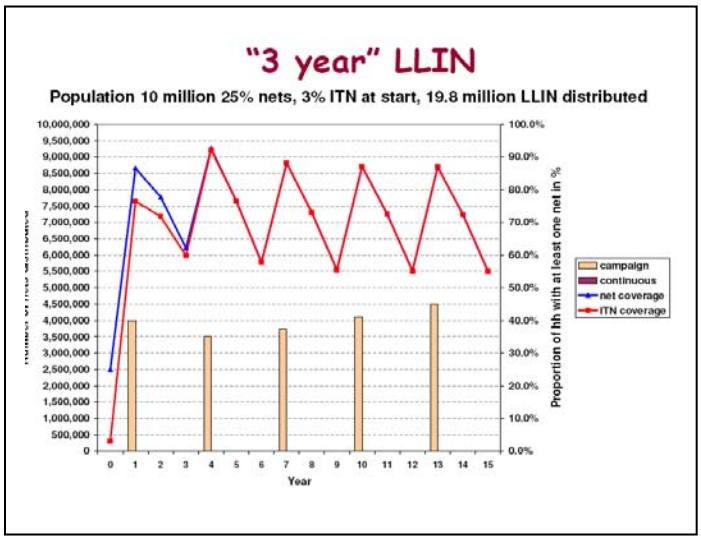
STRENGH	WEAKNESS	OPPORTUNITY	THREAT
Promotion of LLIN			
ITN National policy guideline reviewed Reasonable quantity of bed nets available for the target population – especially for distribution through HCFs. Distribution of ITNs going to scale in some districts - M&M campaign Nov 2006 (870,482 LLITNs delivered). Local council members orientated on LLITNs.	LLITNs not always readily available because of delays in procurement and production. Distribution aims at target groups (vulnerable populations) leaving out a huge proportion of at risk population. Low uptake in utilization – inadequate sensitisation at community level. No comprehensive national plan for LLITN distribution hence duplication of efforts, fragmented and uncoordinated activities. Inadequate human resources for monitoring net use	Existence of community structures for social mobilization (CHRITAG, ISLAG, etc) Involvement of local councils in LLITNs distribution and use. Provision of LLITNs Global Fund Round 7 GF Round 9 chance to request additional LLITNs to achieve universal access	Delays in distribution due to logistics, transportation, poor road network and other constraints Misuse of ITNs (improper handling) Possible vector resistance to insecticide
Malaria in Pregnancy (IPT)			
Integration of IPT into programmes such as RH, Nutrition, EPI, IDSR. IPT guidelines and training manuals available at national and PHU level. Training of Health Workers and CORPs in the implementation of IPT Number of staff trained on IPT (1,013) Using DOT strategy	Delay in starting IPTp at community level Training manual on IPT for Community Based Distributors not available Monitoring and supervision tools for community based IPTp interventions not available	High utilisation of antenatal care services Ongoing community sensitization on the use of IPT Involvement of RBM partners on IPT	Emerging drug resistance of anti-malarial drugs used Unfounded fears of miscarriage/ teratogenicity
Case management			
Availability of a national malaria policy, treatment guidelines and training manuals including for CBI Availability of malaria drugs Pharmacovigilance system	Inadequate trained human resources at all levels Inadequate diagnostic facilities Irregular supervision and monitoring at all levels Unavailability of community treatment charts/algorithm for HMM.	Tax waiver on all antimalarial products Availability of trained CORPS at village/community level. Use of RDTs for HMM implementation. Support from Global Fund Round 7, WHO, EU and other partners	Repeated complaints about the safety of the first line anti-malarial drugs (AS +AQ) resulting in poor compliance Difficulties in controlling the importation of substandard/fake anti-malarial drugs. Poor involvement of the private sector and high cost of combination therapy

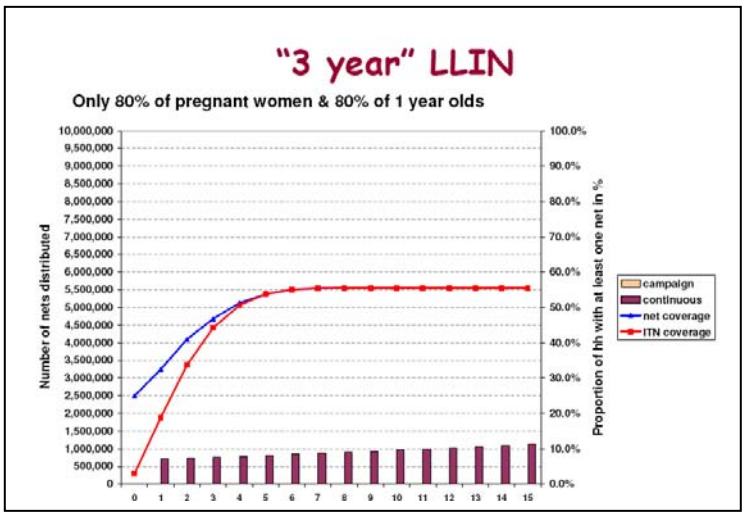
2.3.5 Programmatic gaps

For the “universal access”, there is a need to cover at least 3 ITN/LLIN per household. It is the reason why the following estimation of the GAP will focus on the entire population.

2.3.5.1 Programmatic GAP analysis for ITN/LLIN

It is estimated that 100% of the population in Sierra Leone live in malaria endemic / epidemic prone areas however current government and donor funding has been the limiting factor in setting country wide targets.





Références:
Malaria Consortium: The useful life of a mosquito net and its impact on distribution strategies, Albert Kilian;
WHO: Insecticide treated mosquito nets: a position statement, Global Malaria Programme, Geneva;
WHO: Long lasting insecticidal nets for Malaria prevention, a manual for Malaria Programme Managers, Geneva

This Strategic Plan 2009 - 2015 aims to provide 1 net for 2 people which translates approximately to 3 nets per household, in line with the Graphs above for achieving universal coverage. This will be combined with routine distribution of LLINs which will target children under I years and pregnant women only annually.
Wastage factor of 2% is included in the target number of LLINs for children under 1 years and pregnant women. No wastage factor was factored in for the LLINs mass distribution.

2.3.5.2 Programmatic GAP analysis for ACT

The Country target is for the total number of fever episodes that are targeted to receive ACT. No targets were set in the NMSP 2004-2008 for 2007 and 2008.

Number of fever episodes/year by age group are <5yrs = 3; over five years = 1 through 2011.
In 2011 mass distribution of LLINs to cover 100% of households is planned. As an interim solution and pending data collection to refine forecast, fever episodes are anticipated to
reduce by an additional 10% each year subsequent to the LLINs mass distribution campaign and attainment of 80% use in households, assuming that coverage is maintained. This assumption is in accordance with the recommendation of the RBM Harmonization Working Group. As such % reduction in fever episodes have been projected for the years 2012 through 2014 is projected as
follows: 10% in 2012, 20% in 2013, 30% in 2014 and 40% in 2015

Targets set are in based on existing situation in terms of relative involvement of all sectors in ACT distribution, current and projected availability of ACTs and the expansion in private sector coverage for ACTs

2.3.5.3 Programmatic GAP analysis for RDTs

Assumptions related to fever episodes are as indicated for ACTs
Fever episodes and NOT malaria episodes have been used.
Treatment of children under 5 will be presumptive but there will be piloting of RDTs for this age group and anticipated gradual scale up of RDTs for this age group. RDT coverage for Children under 5 years is as follows:- 2009=2%; 2010=8%; 2011=10%; 2012=10%; 2013=20%; 2014: 35%
Target coverage for use of diagnostics tools before treatment in persons above 5 was projected as 2009=30%; 2010=60%; 2011=68%; 2012=80%; 2013=80%; 2014: 80%
The influence of the RDTs on the behavior of prescribers and availability of RDTs is factored into the scale-up plan.

2.3.5.4 Programmatic GAP analysis for SP

IPTp will be distributed primarily through health facilities and increasingly by trained TBAs
In general two treatment courses of SP administered per pregnant woman
Provision of an additional treatment course of IPTp is planned for HIV positive pregnant women who are estimated at 4.4% of the targeted percentage of pregnant women per year
The Strategic Plan aims for 100% coverage of all pregnant women by 2015 to reach the projected 80% utilization of IPTp by pregnant women in the country

CHAPTER 3

THE SEVEN – YEAR PLAN

3.1 Logical framework

3.1.1 Goal:

Malaria control programme in Sierra Leone aims to contribute to the improvement of the health by reducing the burden due to malaria.

This goal will be achieved through scaling up of interventions evidence based

3.1.2 Overall objective

To reduce by 50% 2010 and 75% by 2015, mortality and morbidity due to malaria by 2015

3.1.3 Specific objectives

VI. To increase percentage of suspected malaria cases correctly diagnosed and treated from 30.1% to 80% by end of 2015;

VII. To reduce severe case fatality by 80% by end of 2015;

VIII. To increase percentage of pregnant women using IPT2 from 11.8 % to 80% by end of 2015;

IX. To increase percentage of people using prevention methods as ITN, IRS, IVM,… (Specially the children under five years and the pregnant women) from 25.9 % to 80% by end of 2015;

X. To improve malaria control management and partnership including M&E

3.1.4 Strategic orientations

3.1.4.1 Definition of key strategies:

Scaling Up For Impact (SUFI) :

Increase coverage for all the population at risk using a range of proven effective anti-malarial interventions (LLIN, IRS, MIP, RDT and case treatment with effective drugs).

- To Impact for Health and Economy

  Country-level studies have shown that use of range of known, proven integrated interventions used at high coverage rates nationally can be extremely effective

- Principles of SUFI :
  - One strategic plan
  - One coordination mechanism for implementation
  - One M&E system

Universal Access:

"The Abuja Call for accelerated action towards Universal Access to HIV and AIDS, TB and Malaria Services in Africa" Abuja Summit 02 - 04 May 2006

- *Acknowledgement of progress made by member-states and the contributions of civil society and the international community*
- *Resolution to intensify the fight against HIV/AIDS, TB and Malaria and to achieve the targets adopted by Summit and other internationally agreed goals on health*
- *To promote regional bulk purchase and local production of generic medicine and other commodities*
- *To accelerate Malaria control programmes with the goal to eliminate malaria using effective strategies such as IRS, ITN, ACT, IPT etc*

- *To promote and support Research and Development*
- *To farther develop an support comprehensive frameworks and mechanisms of well-coordinated partnership*

3.1.4.2 Core Strategies:

1. Scaling up of multiple prevention methods;
2. Improvement of access to prompt and effective treatment at all levels;
3. Strengthening partnerships for malaria control performance;
4. Strengthening Management of the NMCP including Monitoring/Evaluation and operational research;
5. Strengthening the health systems at all levels

3.1.5 Expected results

By 2015, at least 80% of suspected malaria cases would be correctly diagnosed and treated at facility and community level by public and private sectors;

By 2015, at least 80% of severe case fatality would be reduced;

By 2015, at least 80% of pregnant women would use fully IPT;

By 2015, at least 80% of Households would use prevention methods as LLIN, IRS, IVM,… (specially handle at least 3 LLIN);

By 2015, at least 80% of children under five years would use prevention methods as LLIN

By 2015, at least 80% of the pregnant women would use prevention methods as ITN, IRS, IVM,…;

By 2015, Malaria control management will be improved and the health system would be strengthened;

By 2015, Partnership for malaria control would be improved for sustainable reduction of malaria burden in Sierra Leone.

3.1.6 Main interventions and modalities of implementation

3.1.6.1 Main interventions

Specific objective	Expected result	Main interventions
To increase percentage of suspected malaria cases correctly diagnosed and treated from 30.1% to 80% by end of 2015	By 2015, at least 80% of suspected malaria cases would be correctly diagnosed and treated at facility and community level by public and private sectors	Procurement and distribution of ACTs to National level for public sector health facility distribution
		Distribution of ACTs from National level through district stores to public sector clinic
		Procurement and distribution of ACTs from national level to private district warehouses as appropriate and onward to private sector health facilities
		Production and distribution of training / IEC materials for public and private sector health facilities
		Training of providers *(public and private sector health providers)*
		Procurement & distribution of country specific pre-packed ACTs to national level stores.
		Distribution of stock to CBRP from public health facilities through the existing ACT public sector delivery system
		Distribution of ACT from national level to private sector providers (pharmacies and PMVs)
		Training of private sector providers (pharmacies and PPMVs) and CBRPs
		Reproduction of training / job aids/IEC materials for private sector providers and CBRPs
		Procurement of RDTs including QA testing before delivery
		Institute Quality control system for RDTs at district and health facility level
		Distribution of RDTs to district level through to clinics (public)
To reduce severe case fatality by 80% by end of 2015	By 2015, at least 80% of severe case fatality would be reduced	Procurement of Kit for severe malaria management at hospital level
To increase percentage of pregnant women using IPT2 from 11.8% to 80% by end of 2015	By 2015, at least 80% of pregnant women would use fully IPT	Procurement of Sulphadoxine and Pyrimethamin (SP) including QA testing before delivery
		Distribution of SP to district level through to clinics and TBAs
		Training on Malaria in pregnancy to health service providers (training/refresher courses) in collaboration with RCH dept
		Monitoring and Supervision in collaboration with RCH dept
To increase percentage of people using prevention methods as ITN, IRS, IVM,… (Specially the children under five years and the pregnant women) from 25.9% to 80% by end of 2015	By 2015, at least 80% of Households would use prevention methods as LLIN, IRS, IVM,… (specially handle at least 3 LLIN)	Organise integrated LLIN mass campaign distribution
		Procurement and Handling of LLINs to district level, including port clearance for LLINs
		Macro-planning and establishing coordination structures for campaign and routine delivery
	By 2015, at least 80% of children under five years would use prevention methods as LLIN	Micro-planning at district and chiefdom level
		Distribution from district level to pregnant women through ANC and children through EPI clinics (routine)
		Training of health facility staff on LLIN delivery (routine and campaign) /distributors for campaign
	By 2015, at least 80% of the pregnant women would use prevention methods as ITN, IRS, IVM,…	Training of supervisors /distributors, community facilitators for campaign and support to routine distribution of LLINs
To improve malaria control management and partnership including M&E	By 2015, Malaria control management will be improved and the health system would be strengthened	Strengthen coordination, partnership and malaria program management among various stakeholders in malaria control
	By 2015, Partnership for malaria control would be improved for sustainable reduction of malaria burden in Sierra Leone	To provide enabling environment for effective program management
		Provide capacity building/training in program management to implementers at various levels

3.1.6.2 Modalities of Implementation

- By 2015, at least 80% of suspected malaria cases would be correctly diagnosed and treated at facility and community level by public and private sectors

Case Management

At public and private level, case management of malaria starts right from the community level through to the health facility. It involves the ability of people to recognize symptoms early and take the appropriate action. It is recommended that people should have access to ACTs within 24 hours of onset. At the health facility, the importance of using diagnostic tests to confirm cases cannot be overemphasized. In addition, giving the appropriate ACTs is also necessary to ensure the holistic management of people with malaria.

Diagnosis of malaria

Baseline

In 2007, malaria accounted for 39.3% (CDC pop based survey 2007) of out-patients department attendance. Five percent of all clinically diagnosed cases were confirmed as malaria by laboratory testing. There is no data on the exact number of clinically diagnosed malaria cases which were sent for laboratory testing though it is known that not all cases get tested.

Poor capacity for diagnosis due to inadequate numbers of laboratory technicians and technologists and equipments (RDTs, microscopes and reagents) contributes towards the low rate of laboratory confirmation.

Although Rapid Diagnostic Tests (RDTs) has the potential for improving diagnosis of malaria, there is currently no international consensus on any particular brand and type.

This notwithstanding Ghana has introduced RDTs into the health system for the diagnosis of malaria.

Objective

- To ensure that all clinically diagnosed malaria cases have access to laboratory testing by 2015.

Strategies

- Equip all health facilities with malaria diagnostic facilities (microscopes or RDTs)
- Strengthening the human resource through in-service training of laboratory technicians and clinicians.

Operational design

- Train and equip health workers
- Make available guidelines and logistics
- Monitor the use of diagnostic test
- Ensure quality of diagnostics

Outputs

- Total number of clinical cases of malaria confirmed by laboratory testing (RDT or microscopy)

Treatment of Uncomplicated Malaria

Baseline

In 2007, 39.3% (CDC pop based survey 2007) attendance was attributed to malaria. Of this proportion, only 42.3% were treated with ACTs.

Objective:

To ensure that all patients with uncomplicated malaria receive prompt and appropriate treatment by 2015.

Strategies:

- Provision of appropriate and prompt effective ACTs at both the household and health facility level.

Specific Objectives

- To increase access of all (100%) rural communities to community-based treatment for uncomplicated malaria
- To ensure that 90% of caretakers and parents recognize early symptoms of malaria.

Strategy

In recognition of the particular vulnerability of children under five years and the critical nature of appropriate treatment within 24 hours of onset of symptoms in ensuring successful treatment outcomes,

HMM will specifically target children under five years of age, facilitating prompt access to ACTs for this target group as close to home as possible and the private sector to increase access to ACTs for all age groups.
Key private sector providers, patent medicine vendors and pharmacies will be trained and equipped to provide quality malaria case management services at a highly subsidized cost to the population.
The ACT packaging will be specially adapted to facilitate adherence and appropriate use at all levels.
Operational Plan

- Training of health workers including community health officers
- Education of the community on the availability, benefits and rational use of home based care
- Provision of supportive logistics to community health workers
- Strengthening of the referral system
- Monitoring of side effects of ACTs used by CHWs

Outcomes

- Number of districts implementing home based care for malaria in children increased
- Referral from community level for severe malaria improved

❖ By 2015, at least 80% of severe case fatality would be reduced

Management of Severe Malaria

Strategy

Provide appropriate and prompt management to reduce the progression into severe disease and death

Operational Plan

- Assessment of hospitals for their capacity to manage severe malaria
- Organization of facilities for managing severe malaria.
- Train health staff in management of severe malaria based on WHO guidelines.
- Advocate and support the provision of essential equipment based on the assessment of the hospitals.
- Advocate improved coverage of the ambulance service

Outcomes
Number of admissions due to severe malaria reduced
Number of deaths due to severe malaria reduced

❖ By 2015, at least 80% of pregnant women would use fully IPT

According to the SLDHS, 86.9% of women who gave birth in the past five years received antenatal care from a health professional at least once providing the avenue for achieving the specified target. Currently Intermittent Preventive Treatment for pregnant women (IPTp) using Sulfadoxine + Pyrimethamine (SP) is provided via facility-based antenatal clinics in all districts as part of the minimum antenatal care package. To address the issue in inequity in access according to the urban/rural split and in education of the mother and greatly expand coverage with IPTp, strengthening malaria in pregnancy services at all health facilities implemented in collaboration with the Reproductive and Child Health Division of the MOHS.

Objective/target

- To ensure that 100% (All) pregnant women shall be on appropriate Intermittent Preventive Treatment (receive at least two of more doses of Sulfadoxine - Pyrimethamine under DOT by 2015.
- To ensure that 100% (All) pregnant women use at least one personal protective measure by 2015

Strategies

- All pregnant women will receive three doses of SP using the Directly Observed Therapy in the Antenatal Clinics. This will be at both static and outreach clinics in public, quasi-government and private facilities.
- Implement other personal protective measures like the use of mosquito repellents and protective clothing

Operational design

- IPT shall be given by Directly Observed Therapy (DOT) by health workers.
- Community level education on issues pertinent to efficient delivery of IPT and other protective measures
- Increase access to IPT through Focussed Antenatal Care.
- Improve community participation in the delivery of ANC
- Improve supportive logistics to facilitate IPT
- Address pharmacovigilance issues

Outcomes

- Increased number of pregnant women receiving all three doses of SP (IPT2)
- Increased numbers of pregnant women using personal protective measures

- ❖ By 2015, at least 80% of Households would use prevention methods as LLIN, IRS, IVM,… (specially handle at least 3 LLIN)

Other Vector Control Methods:
As an adjunct to ITNs and IRS, the NMCP will support other vector control measures such as limited larviciding, targeted space spraying, and environmental modifications.

IRS:

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

Larviciding

Larviciding is a component of Sierra Leone Integrated Malaria Control Programme, as reflected in the policy.

Space Spraying

Outdoor *space spraying* has been conducted around some camps and areas but need to be documented.

Environmental Management

Habitat elimination or modification efforts have included general programs to reduce the abundance of all mosquitoes as well as more targeted projects of "species sanitation" directed at the principal malaria vectors (Bruce-Chwatt 1985).

Objective

- To reduce factors in the environment which contribute to the breeding of mosquitoes and malaria transmission.

Strategies

- (A) *Environmental modification techniques* will be carried out largely by local authorities at the district and municipal level, as appropriate for local circumstances, and with technical guidance from the NMCP
- (B) *Environmental manipulation techniques* will be employed in a similar approach

Operational Design

(A) Environmental Modification Activities

Environmental Modification is a physical change of the environment (often long term) to potential breeding areas designed to prevent, eliminate or reduce vector habitat. Activities may include:

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

(B) Environmental Manipulation Activities

Environmental manipulation refers to activities that reduce larval breeding sites of the vector mosquito through temporary changes to the aquatic environment in which the larvae develop.

- Advocate for appropriate environmental manipulation measures
- Intensify IEC on the impact of human behavior on mosquito breeding and malaria transmission.
- Sensitize key politicians on mosquito breeding and malaria transmission.

Outcomes:

- Increased number of districts and municipalities carrying out appropriate Environmental Modification Activities.
- Increased number of districts and municipalities carrying out appropriate Environmental Manipulation Activities.

❖ By 2015, at least 80% of children under five years and Pregnant Women would use prevention methods as LLIN

Use of Insecticide Treated Bed Nets (ITNs):
Baseline Status of ITNs

To have impact on malaria morbidity reduction among the general population, Sierra Leone is transiting to universal access, targeting at least 80% of the total population at risk of malaria. This will be done by distributing LLINs to all households by 2011 to ensure that every household has at least three LLINs. The mass distribution will begin in the first quarter of 2011. This is in line with the Global RBM Partnership Action plan (GMAP) that recommends that 80% utilization of LLINs by the entire population at risk as the most appropriate objective for universal coverage and based on the RBM Harmonization Working Group HWG guidance that countries budget for the entire population at risk at a ratio of approximately 1 LLIN for every 2 people. The availability of donor funds precludes attainment of this target by 2010 as per the RBM GMAP.
The data available show the following:

% of households with at least one insecticide treated net (ITN/LLIN): 36.6%
% of pregnant women sleeping under (ITN/LLIN); (survey) From 2% in 2004 to 27.7% (DHS, 2008)
% of children under five sleeping under (ITN/LLIN); (survey) From 6.6% in 2004 to 25.9% (DHS, 2008)

Objectives/Targets
The country aims to attain the following targets for (ITN/LLIN): use by 2015, in line with the goals of global malaria control initiatives:

- 100% of households will own at least one ITN/LLIN: by 2015
- 80% of the general population will sleep under ITN/LLIN: by 2015.
- The number of children under-five and pregnant women sleeping under treated net will increase from current levels to 85% by 2015.

Strategies

- Organise the integrated mass campaign of distribution of LLIN
- Scale up the use of ITN/LLIN to achieve universal coverage
- Sustain the routine distribution thru EPI and ANC
- Promote and facilitate the regular and correct use of ITN/LLIN, in order to translate rising ownership rates into high use rates.
- Engage the private sector and local communities as partners in planning and implementation.

Operational design

- Only Long Lasting Insecticide Treated Nets (LLINs) will be procured.
- Improved coordination and communication will be promoted among the net providers; taking the form of a special sub-committee.
- To promote better supply change management, storage facilities in each district will be improved as necessary and the NMCP will develop improved systems for assessing needs and tracking ITN distribution.

- Behavioral Change Communication will focus on challenges of ITN use.
- The use of other ITMs, such as treated curtains, will be promoted.

Outcomes
- Increased proportion of households that own at least one ITN/LLIN.
- Increased proportion of children under five years who sleep under an ITN/LLIN.
- Increased proportion of pregnant women who sleep under an ITN/LLIN.
- Increased proportion of the general population who sleep under an ITN/LLIN.

❖ By 2015, Malaria control management will be improved and the health system would be strengthened

IEC/BCC, advocacy and social mobilization

Baseline:
The 2010-2015 health communications strategic plan will highlight the need for malaria control action at all levels of society and support sustained behavior change through a series of specific but interlinked communications campaigns on the key objectives of the Project.

A behavior change communications model that explores the determinants of sustained appropriate actions and includes evidenced-based message development will be used to guide community outreach and mass media activities. Multi-media collaboration will be promoted and media personnel trained in improved information and communication strategies and malaria. The social mobilization component will focus on providing a grassroots social support platform that facilitates behavior change within the household and demand for improved services. This malaria communications strategy will be supported by key advocates who are respected at national, district levels and community opinion leaders from the public and private sectors, faith based organizations and civil society, as well as personalities from the sports and entertainment industries. A coalition of civil society organizations working in malaria will be established to coordinate this aspect of activities and ensure effective dissemination of best practice.

Mass Media
Mass media messages and materials will be produced for each major intervention area and adopted for dissemination primarily through radio spots and dramas with occasional TV jingles and spots used as appropriate, information and interviews through print media and documentaries. Messages will be tailored to different appropriate socio-economic level and geographic locations. A least two separate radio messages per intervention area (malaria prevention through LLINs, Malaria in Pregnancy, Prompt treatment with ACTs and Importance of Diagnosis) will be produced by the project.

Advocacy to Districts and Local Government Authorities and community leaders
Advocacy visits will be conducted by NMCP and Directorate of Disease Prevention and Congrol (DPC) to key members of the District councils, Chiefdom and community leaders to sensitize them on the importance of data generation, feedback and use of data to inform decision-making.

At the district level, district malaria health communications working groups will be set up in all districts as a subset of the RBM partnership to co-ordinate activities. Implementation will take place according to the annual national and District plans, with stakeholders in a district taking the lead in their respective areas of operation and meeting regularly.

Behaviour Change Objectives/Communication Objectives
In consultation with partners, develop national malaria communication strategic plan, mass media plan and develop and produce mass media materials
Mass Media Campaign on the use of LLINs ("Catch up" and "Hang up" campaign) prior to and during LLINs mass distribution. A "Keep up' campaign following the LLIN campaign.
Mass Media Campaign on malaria in pregnancy including the importance of early ANC attendance and protecting pregnant women with LLINs and IPTp
Campaign to improve treatment seeking behavior for all age groups including the importance of diagnosis for adults

Strategies:

- Conduct annual campaigns on malaria prevention and control.
- Institutionalize the process of engaging partners in IEC/BCC planning and implementation.
- Select and use multiple channels to reach target groups.
- Advocate for support for malaria control from political leaders, policy makers, cooperate (private sector) leaders and opinion leaders.
- Improve communication skills of health workers through orientation and supervision.
- Correct commonly held misconceptions regarding malaria infection and control.

Outcome:

- Awareness among health workers on malaria control intervention is increased.
- Awareness among communities on malaria prevention action is increased.

- A formal structure is developed to engage partners in planning, design, development, dissemination and evaluation of effective IEC/BCC plans.
- A package of evidence-based intervention specific malaria information, education and communication materials is developed for use at the district level.
- A communications plan is implemented that provides quarterly updates and information on the achievements of the National Malaria Strategic Plan that targets stakeholders, political and health system leaders and health development partners.

❖ By 2015, Partnership for malaria control would be improved for sustainable reduction of malaria burden in Sierra Leone

Strengthening the RBM partnership for impact

Objectives/target:

- To create and sustain partnerships for malaria control.
- To mobilize society for a well coordinated national action against malaria.

Strategy

- To establish a social movement supported by a well coordinated national action that is owned by all stakeholders to roll back malaria
- To identify and harnessing properly and systematically the expertise of private and non formal sector to scale up all intervention especially at the community level.

Operational design
Two additional coordinating mechanisms will be necessary to ensure the success of this proposal, for which funds do not exist. The following meetings will be held under the oversight of the NMCP:

- *Annual Malaria Programme Review Meeting* – This will involve the Directorate of Disease Prevention and Control, Directorate of Reproductive and child health, Program managers from

each district, technical partners, stake holders and the NMCP to review the annual progress of the NMCP and plan for the coming year.

- *Quarterly national RBM stakeholders Meeting*– This advisory committee meeting, facilitated by the NMCP on a quarterly basis, includes the other directorates and malaria implementing partners at the national level to monitor program progress against the annual plan and to preemptively identify and address problems.
- *National Malaria subcommittees quarterly meeting*: The quarterly RBM stakeholders will be used as an opportunity for technical subcommittees on malaria case management, malaria prevention and behavior change (to compliment the M&E subcommittee already established under Round 7).
- *District level quarterly RBM stakeholders meeting*: - RBM stakeholders supported by the DHMTs will meet on a quarterly basis to review progress and address implementation issues. The reports of the meetings will be made available for review at the national RBM quarterly meeting.

Outcomes

- Functional partnerships and mechanisms between departments and programmes within health
- Functional partnerships and mechanisms with and between development agencies
- Functional partnership and mechanisms with and between government sectors
- Functional partnership and mechanisms with and between NGOs, private sectors and informal sectors

3.2 Plan of action and Budget

3.2.1 Activities and timeline

Details of activities of the period 2009 – 2011 are out the document and it's the summary of the costs estimated which is presented in this section

3.2.2 Estimated costs

	2009	2010	2011	2012	2013	2014	2015	TOTAL
LLIN	6448445	1969545	19941220	2327880	2386725	21492720	2442000	57008535
SP	22442	22998	31429	32216	33030	42342	44880	229337
ACT	1356960	2133450	4158553	6231982	6697265	6009779	5788500	32376489
RDT	1111999	2373058	2778997	2959672	2915582	2888821	2863000	17891129
Training	300000	1500000	500000	500000	500000	500000	100000	3900000
Equip/Log	200000	200000	1000000	200000	200000	1000000	200000	3000000
PSM	100000	500000	800000	500000	500000	500000	500000	3400000
IEC/BCC	150000	1200000	800000	500000	500000	500000	500000	4150000
M&E	300000	600000	1500000	500000	500000	500000	500000	4400000
Management	50000	150000	200000	150000	150000	200000	100000	1000000
HR	20000	40000	40000	40000	40000	40000	40000	260000
TA	50000	150000	150000	100000	100000	100000	100000	750000
T O T A L	**10109846**	**10839051**	**31900199**	**14041750**	**14522602**	**33773662**	**13178380**	**128365490**

3.2.3 Financial gaps analysis

3.2.3.1 Main delivery

NEEDED	2009	2010	2011	2012	2013	2014	2015	TOTAL
LLIN	6448445	1969545	19941220	2327880	2386725	21492720	2442000	57008535
SP	22442	22998	31429	32216	33030	42342	44880	229337
ACT	1356960	2133450	4158553	6231982	6697265	6009779	5788500	32376489
RDT	1111999	2373058	2778997	2959672	2915582	2888821	2863000	17891129
TOTAL	8939846	6499051	26910199	11551750	12032602	30433662	11138380	107505490
AVAILABLE								
LLIN	4252710	1929390	1939895	719090	0	0	0	8841085
SP	35635	7658	8772	7925	0	0	0	59990
ACT	1214150	964248	1219239	1303443	0	0	0	4701080
RDT	963897	841006	725658	743839	0	0	0	3274400
TOTAL	6466392	3742302	3893564	2774297	0	0	0	16876555
GAP								
LLIN	2195735	40155	18001325	1608790	2386725	21492720	2442000	48167450
SP	22442	22998	31429	32216	33030	42342	44880	229337
ACT	142810	1169202	2939314	4928539	6697265	6009779	5788500	27675409
RDT	148102	1532052	2053339	2215833	2915582	2888821	2863000	14616729
TOTAL	2509089	2764407	23025407	8785378	12032602	30433662	11138380	90688925

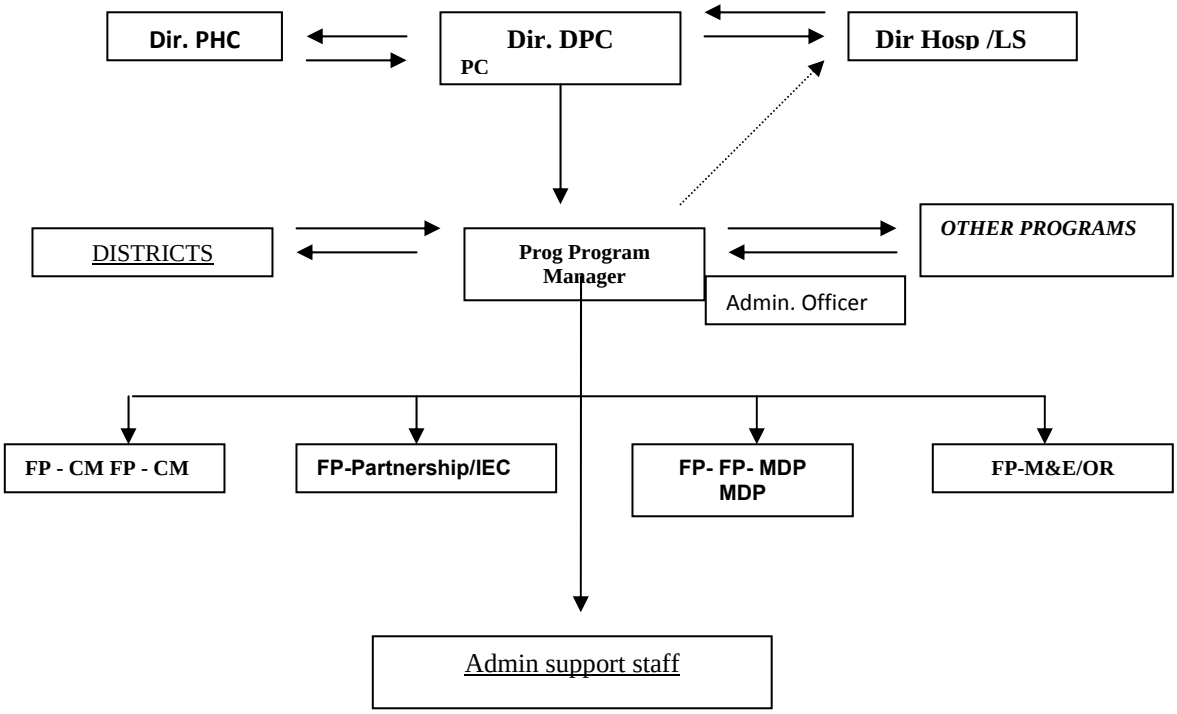
3.2.3.2 Support interventions

	2009	2010	2011	2012	2013	2014	2015	TOTAL
Training	300000	1500000	500000	500000	500000	500000	100000	3900000
Equip/Log	200000	200000	1000000	200000	200000	1000000	200000	3000000
PSM	100000	500000	800000	500000	500000	500000	500000	3400000
IEC/BCC	150000	1200000	800000	500000	500000	500000	500000	4150000
M&E	300000	600000	1500000	500000	500000	500000	500000	4400000
Management	50000	150000	200000	150000	150000	200000	100000	1000000
HR	20000	40000	40000	40000	40000	40000	40000	260000
TA	50000	150000	150000	100000	100000	100000	100000	750000
SubTotal	1170000	4340000	4990000	2490000	2490000	3340000	2040000	20860000

3.3 Administration, management of the NMCP and Partnership

3.3.1 Institutional framework

NMCP Organogram



3.3.2 Management procedures

With sufficient staff and resources in place the NMCP will increasingly take the lead in strengthening malaria control efforts and coordinates all activities implemented by the various partners. This will include advocacy for malaria within the Ministry of Health and Sanitation to ensure malaria control is fully integrated into the overall development plans.

Supported by other members of the RBM partnership such as WHO, the NMCP will provide guidance, technical support and supervision to ensure that agreed upon strategies and guidelines are followed. A Technical Working Group (TWG) involving all partners should be formed whose primary responsibility will be to develop or update malaria related policies, strategies and guidelines as the National Malaria Control Strategic Plan need arises. Detailed annual work plans will be developed and progress monitored during regular, at least quarterly coordination meetings.

Strengthening the capacity of malaria focal points at district level is crucial in order to ensure implementation and coordination. These malaria focal points will not only be supported through training but also be availed of operational and logistic support such as office space, stationary, computers, motorbikes etc.

3.3.3 Coordination of the Partnership

3.3.3.1 Implementation Arrangements

A two year rolling implementation plan will be developed in order to manage the implementation of the national malaria control programme. The primary responsibility of NMCP will be coordination and monitoring of malaria related activities and their integration within the overall health sector activities.

There will be two mechanisms of coordination at national level:

1. **Malaria Technical Working**

   his will meet at least quarterly and comprise of the technical staff of the Malaria Control Programme and any interested partner. This forum will discuss issues regarding policy and implementation guidelines of all aspects of malaria control, review emerging new evidence and make recommendations to the overall RBM coordination forum and the Ministry of Health.

2. **RBM Coordination Committee**

At the national level this committee will meet at least twice a year (mid year and end of year) and brings together all partners from government ministries, civil society and the private sector. This forum will be chaired by the MoHS senior officer and discuss progress in malaria control and will take decisions on major issues based on the recommendation of the TWG. Results will be reported to the Directorate of Primary Health Care, MoHS.

At district level, the coordination of malaria activities will be managed by the District Medical Officer and will be as much as possible integrated into the overall health

Partners and their Roles and Responsibilities

Government

The major role of government is to

• Provide to all stakeholders

Ministry of Health and Sanitation/NMCP:

• Provide leadership
• Devise standardized policies and guidelines
• Provide health services
• Supervise and coordinate
• Mobilize resources
• Monitoring & Evaluation
• Direct and review research policy
• Provide commodities and supplies
• Guide private health care providers
• Human Resource Development

Pharmacy Board Sierra Leone

Regulate pharmaceuticals
Quality control and assurance

Ministry of Education

• Include malaria
• provide school health (ITN, treatment)

Ministries of Roads and Ministry of Housing

• Improving access to health facilities

Ministry of Information

• Dissemination of malaria related information

Civil Society

Comprise both International and National NGOs, Community and Faith-Based Organizations (CBO and FBO).

- Provide curative and preventive health services through hospitals and health facilities or work directly with the communities.

Their responsibility is to:
• Follow government guidance
• Advocacy and mobilization
• Sensitization
• Provide health services

Private Sector
Two groups
1. Private for- profit health care providers
2. Manufacturers and distributors of health related products.

Their responsibilities are to:
• Supply appropriate, affordable and high quality health products and services
• Follow government guidance
• Contribute to positive behavioural change by advertising
• Social responsibility

International Partners
Multi-lateral UN-organizations such as WHO, UNICEF etc. and international finance institutions (e.g. World Bank, GFATM) together with organizations of bi-lateral cooperation (e.g. USAID, DFID) form the group of development partners.

Their responsibility is to:
• Provide funds
• Provide technical assistance
• Build capacity

Communities
- Communities
- Community leaders (political and religious)
- Health workers (e.g. CBPs, TBA, and CORPs) are a crucial partner in the implementation of the malaria strategic plan.

Responsibility:
• Advocacy
•Social and Resource mobilization
• Actively participate in and contribute to malaria control activities
• Seek treatment early and adhere to treatment guidelines
• Use ITNs correctly
• Manage local environment

Academia
Collaborations with health training institutions do exist, though weak. Howver, the capacity to undertake operational research is expected to increase.
Responsibilities:
• Undertake research
• Interpret and disseminate research results
• Provide technical support

3.3.3 Monitoring and evaluation system

3.3.3.1 M&E plan

There is an established and functional Monitoring and Evaluation Unit within the National Malaria Control Programme. The NMCP has four (4) M&E officers, and has recruited three (3) additional data entry clerks for the expected high volume of data received from the districts. Funding has been made available for formal master's level and short course trainings have been or will be completed by all of the M&E members. The district level team, namely the Malaria Focal Persons will be given organized training in M&E and data collection/management as required.

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

The M&E Unit verify data both when it is received and also during supervision visits in the field. This is done by comparing what is in the register with the summary forms. If there is a discrepancy, this would be brought to the notice of the DHMT, PHU or community health workers through on-the-job training.

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

3.3.3.2 Establish a dissemination mechanism

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

Data Management Malaria Focal Persons

1. Data is collected from each PHU every month.
2. The data will be reviewed and any necessary corrections made.
3. The PHU record register should be updated each time data is received from the PHU
4. All data and reports will be filed by month in designated files.
5. Immediately replenish data collection tools when necessary.

3.3.3.3 Monitoring (periodic progress report, coordination meetings, supervision)

Data Management NMCP

1. Data is stamped "***Received***" with the date in which the document was received at NMCP. The person giving and receiving the documents fill in the Data/Report Receiving Register.
2. The Data Manager physical reviews the data with the person bringing the data. Corrections and on-the-job training to be given during this discussion. Upon completion and when the data manager is satisfied with the data received, the forms are then stamped, signed and dated and are ready for data entry. The tracking database is then updated indicating which District and the number of PHUs that have reported.
3. Data is entered twice, by two different data entry clerks. During the first entry of a data form, each record is given a unique number, which will avoid duplicate entries. The second entry will be denoted by a tick (√) after entry. Upon completion of entering a form (either 1st or 2nd time) the each data clerk will sign and date the form in the designated area.
4. After data is entered twice, the data manager will verify/compare the two records for consistency, accuracy and completeness. Any necessary corrections or edits will be made at this time.
5. Upon completion of the verification the data is placed in the appropriate file.
6. At the end of every month the data will be cleaned and analyzed to give a monthly report to the M&E Unit in order to identify areas that need to be targeted and corrected.

2) District Health Management Team (Malaria Focal Persons)

DHMT/Malaria Focal Persons are responsible for supervising all malaria related data collection in the district. They are tasked to review all data forms and reports and take corrective action if necessary. Additionally, the DHMT/Malaria Focal Persons staff are to clearly and accurately report data from the PHU to NMCP in a timely manner. They are encouraged to cross check their

data before submission. The DHMT/Malaria Focal Persons staff are also tasked with providing necessary feedback to the PHU and community levels as appropriate.

3) Peripheral Health Unit (PHU)

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

4) Community Level (CBP and TBAs)

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

3.3.3.4 Control and audit

Standardized data collection tools will be utilized for data collection. Data is entered into standardized data bases. During supervision, data will be verified from the registers at health facilities and the CBP/TBA registers. On-the-job training will be conducted on data verification, collection and analysis. Specific data quality measures are to be carried out at all levels to ensure data accuracy and completeness. ***(Source: Round 7 M&E Plan – 2009)***

Monitoring is a process of tracking or measuring what is happening. Two kinds:

- *Performance Monitoring*: entails measuring progress in relation to implementation plan for an intervention (i.e. a programme/activities, strategies, policies) and specific objectives.

Situation monitoring: entails measuring a change in condition or set of conditions or lack there of e.g. changes in situation of women and children

PURPOSE OF MONITORING

- Provide accountability for implementation according to programme plan
- Improve programme implementation
- Trigger rapid adaptation of programme response, particularly in crises or unstable contexts.
- Feed into evaluation
- Provide information for advocacy for changing policies or programmes (particularly situation monitoring)

Evaluation is a process that tries to determine as objectively as possible the worth or significance of an intervention or policy.

- This judgement is based on common evaluation criteria such as, relevance, efficiency, effectiveness, impact and sustainability.

PURPOSE OF EVALUATION

- Improve programme relevance , methods or
- Learning, particularly lessons that can be generalized to other programmes or situations
- Provide accountability for programme results

REFERENCES

1. LENGELER C. (2004) Insectcide – treated bed nets and curtains for preventing Malaria. Cochrane Database of systematic reviews

2. MINISTER OF HEALTH AND SANITATION (2004): National Strategic Plan for Malaria Control 2004 – 2008, March, Sierra Leone

3. MINISTER OF HEALTH AND SANITATION (2005): Revised guidelines for the case management of Malaria in Sierra Leone, August, Sierra Leone

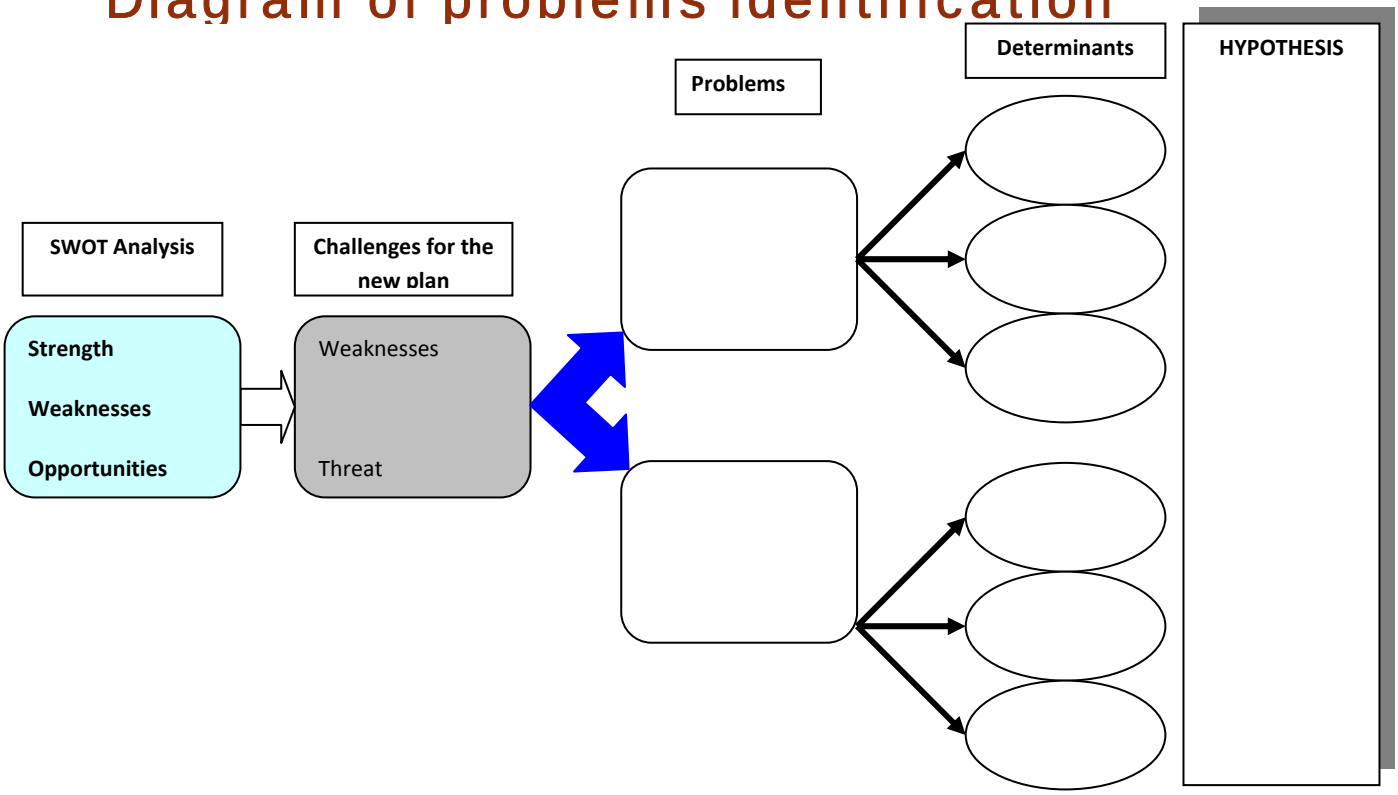
4. MINISTER OF HEALTH AND SANITATION (2007): Survey report on the coverage of Malaria interventions in the eight Global Funds districts in Sierra Leone, March

5. MINISTER OF HEALTH AND SANITATION (2008): Policy guidelines on insecticide treated nets, November, Sierra Leone

6. MALARIA CONSORTIUM: The useful life of a mosquito net and its impact on distribution strategies, Albert Kilian;
7. WHO: Insecticide treated mosquito nets: a position statement, Global Malaria Programme, Geneva;
8. WHO: Long lasting insecticidal nets for Malaria prevention, a manual for Malaria Programme Managers, Geneva

ANNEXES

Diagram of problems identification



LOGICAL FRAMEWORK

GOAL AND OBJECTIVES OF RBM:

OBJECTIVES OF COUNTRIES FOR 2015 :
▪