



**REPUBLIC OF THE GAMBIA**  
**DEPARTEMENT OF STATE FOR HEALTH AND SOCIAL WELFARE**

# **MALARIA CONTROL IN THE GAMBIA**

## **STRATEGIC PLAN 2008 - 2015**

*DRAFT*

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## Foreword

Malaria control and prevention in The Gambia is promising and reduction in its burden is anticipated. The Department of State Health together with key partners and stake holders have worked hard to developed a strategic frame work that is consistent with the malaria policy vision “ Gambia where malaria cease to be major public health problem”. The Gambia malaria policy outlined key malaria interventions which are translated into strategies and service delivery areas that address the key issues in malaria control and prevention and the health system at large.

*In the Gambia, malaria is one of the leading causes of morbidity and mortality, especially among children under 5 years. However, during the past years, there has been a 74% reduction in the number of admissions in selected facilities in the country (Ceesay et al., 2007). Although the economic burden of malaria has not been fully determined, there is no doubt that the disease accounts for considerable loss days of productivity among the adult population, absenteeism from schools and workplaces and increased household expenditure on health. Malaria is therefore not only a health problem but also a developmental one. The linkage between malaria and poverty is well recognized and this policy document is consistent with the overall government strategy on poverty reduction.*

In the past years, malaria control and prevention had been faced with some resource constraints, which had adversely affected successful program implementation. This situation had previously also limited effective and sustained resource allocation to priority diseases.

Fortunately in the last four years in The Gambia funding opportunities for malaria has increased from multilateral and other sources of funding. The increased levels of partnerships in the area of malaria control provide a solid foundation for sound co-ordination of malaria control within the context of planning and management.

In order for impact to be achieved and the gains to be sustained, emphasis will be on the scaling up for impact (SUF) through the use of cost effective interventions. The success of malaria control program is under-pinned in the principles of; rapid scale up and expansion of all relevant and proven interventions, universal access to relevant interventions, ensuring equity through community based and gender based approaches that focus on hard to reach communities supported by well strengthened community and health systems.

The malaria strategic plan will provide basis for a common ground for coordination, implementation and monitoring and evaluation of malaria control activities for all partners.

I sincerely thank all Partners and other Stakeholders for their participation in the development of the strategic plan and look forward to stronger partnership in the RBM process.

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**Dr. Mariatou Jallow**

Secretary of State for Health & Social Welfare

Department of State for Health & Social Welfare

## **Executive summary**

Malaria is a disease of major public health concern in the African Region, with about 550 million people at risk. It is estimated that there are 247 million clinical cases annually and up to one million deaths, mainly among children under 5 years. Ninety percent of malaria cases are from Africa, where 75% of malaria cases are due to *P. falciparum* (WHO 2008).

In the country as a whole, fever suspected as being malaria accounted for 717 per 1000 of all out-patients cases and 262 per 1000 of malaria cases in all ages. During this time, 1044 per 1000 of under-five visits to Reproductive Health and Child (RCH) clinics were due to malaria, and mortality due to malaria was 6.1 Per 100 in 2006 (WHO, 2008). Although the economic burden of malaria has not been fully determined, there is no doubt that the disease accounts for considerable loss days of productivity among the adult population, absenteeism from schools and workplaces and increased household expenditure on health. Malaria is therefore not only a health problem but also a developmental one. The linkage between malaria and poverty is well recognised and this policy document is consistent with the overall government strategy on poverty reduction.

The aim of the seven-year strategic plan is to provide a framework for the reduction of the malaria burden by 50% by 2015. This is consistent with the global RBM, The Gambia Health Policy and the Malaria Policy. The NMCP will advocate appropriately increased resource allocation to this end at the national, divisional and community levels. In addition, the document provides a clear framework in which to identify and develop locally appropriate strategies, targets and detailed work plan and implementation time frame.

This strategic plan also indicates how the malaria control services will integrate into the general health services and with other programmes such as Integrated Disease Surveillance (IDS), Integrated Management of Childhood Illnesses (IMCI), Reproductive Health (RH) and Health Management Information System (HMIS). The plan also outlines the possible partnership arrangements, institutional framework, responsibilities, coordination mechanism and implementation strategies.

The main strategic approaches include Case Management, Malaria in Pregnancy, Vector Control and Personal Protection, Management and Partnership, Information, Education and Communication (IEC) and Advocacy, and Surveillance and Research.

## **Acknowledgement**

The National Malaria Control Programme on behalf of the Department of State for Health acknowledge the commitment and active participation of the following; Catholic Relief Services (CRS) , UNICEF, Centre for Innovation Against Malaria- Public Health Research and Development Centre (CIAM),

We wish to express our profound gratitude to the Permanent Secretary, Deputy Permanent Secretary and Director of Health Services for technical guidance and support during the process of developing the strategic plan..

The Department of State for Health and Social Welfare wish to thank World Health Organisation (WHO) country office in particular the Country Representative and staff for the financial and technical support in the production of the first draft of this strategy.

The Department of State for Health and Social Welfare would also like to express their profound gratitude to The Global Fund secretariat for contributing to The Gambia's success during the Round 3 & 6 application to fund malaria interventions, without which we will not be able to achieve what we have today.

## Acronyms

BCC	Behaviour Change Communication
CBD	Community Based Distributors
CCF	Christian Children's Fund
CIAM	Centre for Innovation Against Malaria
CMC	Community Management Committee
CRS	Catholic Relief Services
DoSHSW	Department of State for Health and Social Welfare
EPI	Expanded Programme on Immunization
GAFNA	Gambia Food and Nutrition Association
GDP	Gross Development Product
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GFPA	The Gambia Family Planning Association
GSMMP	The Gambia Social Marketing Management Programme
IEC	Information, Education and Communication
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Net
LGA	Local Government Area
MCH	Maternal and Child Health
MICS	Multiple Indicator Cluster Survey
NGO	Non-governmental Organization
NID	National Immunization Day
NMCP	National Malaria Control Programme
NSGA	Nova Scotia Gambia Association
RBM	Roll Back Malaria
TAYAM	The Association of Youth Against Malaria
UNICEF	United Nations Children's Fund
WD	Western Division
WHD	Western Health Division
WHO	World Health Organization

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## INTRODUCTION

In the country as a whole, fever suspected as being malaria accounted for 717 per 1000 of all out-patients cases and 262 per 1000 of malaria cases in all ages. During this time, 1044 per 1000 of under-five visits to Reproductive Health and Child (RCH) clinics were due to malaria, and mortality due to malaria was 6.1 Per 100 in 2006 (WHO, 2008).

The first strategic plan for the National Malaria Control Program was drawn 2002 – 2007. The plan outlined key interventions and formed the basis of malaria control and prevention services. Significant progress has been made in the implementation of the previous strategic plan. Funding opportunities for malaria control has increased over the years leading to increase in coverage for key interventions such as Insecticide Treated Nets (ITN) use by pregnant women and children under 5, Intermittent Preventive Treatment for pregnant women (IPTp) and access malaria treatment. Progress has shown that, The Gambia is working towards meeting the Roll Back Malaria (RBM) targets of 80% coverage for key interventions by 2015. The Strategic plan, 2009 – 2015 will build on the achievements of the previous strategic plan. Recently, additional interventions have been introduced such as targeted larviciding, Indoor Residual Spraying and Environmental Management. The antimalarial drug policy change for the treatment of uncomplicated malaria from Chloroquine monotherapy to Artemisinin-Combination Therapy (ACT) will also contribute to the reduction of malaria morbidity and mortality.

This strategic plan has been updated to reflect on the changing trends. It aims to sustain and improve on the achievements gained in the last five years and introduce new interventions and strategies with support from all stakeholders including health partners, community members, research community, the academic sector and NGOs. It defines strategies to be implemented to achieve the goal set for the Malaria Control Programme in The Gambia.

There is therefore the need to mobilize additional resources to support the scaling up of interventions, sustain control and build health systems capacity to provide directions to achieve the goal (to control malaria so that it ceases to be a major public health problem in The Gambia).

# CHAPTER 1

# COUNTRY PROFILE

## 1.1 Overview

### 1.1.1 Geographical situation

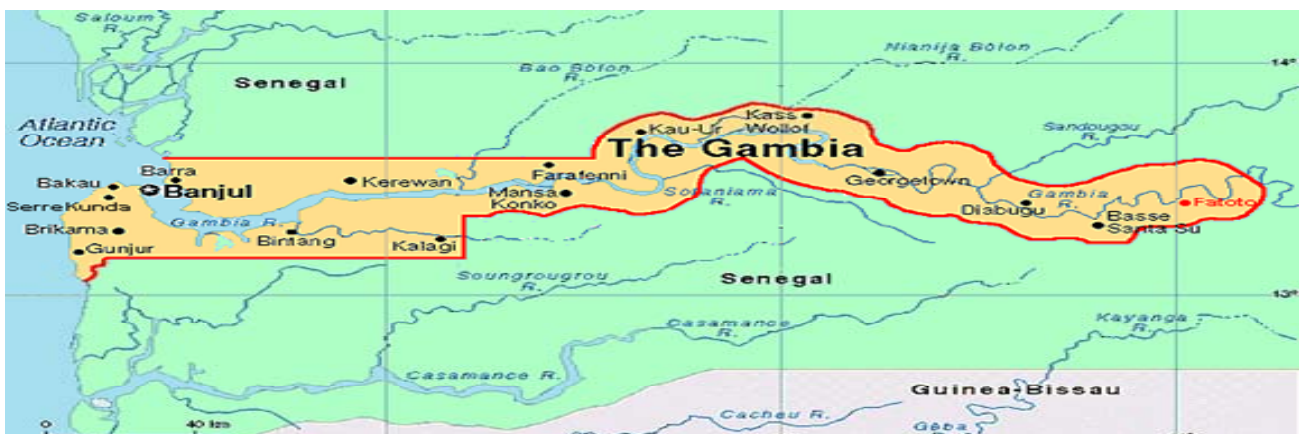
The Republic of the Gambia is located on the West Africa Coast between latitudes 13.0° North and longitude 13.7° west and 16.0° west. The Gambia stretches about 350km from the coast land inland with its width varying between 25 to 60 Km occupying a total land area of 10,690km sq. It is bordered along its North, East and South by the republic of Senegal and the West by the Atlantic Ocean.

The Gambia is divided into 7 administrative regions comprising five rural and two urban administrative areas. For health administration, there are 6 health regions. Each administrative region is divided into districts with varying population of 75000 in Lower River Region (LRR) to 800000 in Western Region (WR).

### 1.1.2 Climatological data

The Gambia has a tropical forest vegetation along the banks of the River Gambia while towards the east is mainly Savannah woodland and Sahelian vegetation.

Figure 1: Map of the Gambia



### 1.1.3 Ecosystems, environmental data

The population of the Gambia is currently estimated at 1.6 million people giving a population density of 151 persons per square kilometre. The annual population growth rate is about 2.8 per cent (2003 Census). The literacy rate among males is XXX per cent and females YYY per cent. Life expectancy at birth for males is 56 and females 59 years. About 44% of the population is under 15 years (2003 census, Gambia Bureau of Statistics).

The population is increasingly becoming concentrated in urban areas with 55% of the population found within Western Region in which the capital Banjul is situated. The total fertility rate is 5.4 births per woman and the Human Development Index for The Gambia is 0.502 which gives the country a rank of 155 out of 177 countries (Human Development Report, UNDP, 2007-2008). The GDP per capita in 2005 was PPP\$1,921 (Human Development Report, UNDP, 2007-2008).

### 1.1.4 Demographic data

**Table 1: Demographic data**

Indicator	2008	2009	2010	2011	2012	2013	2014	2015	Source (and year)
Total population	1 619 527	1 675 613	1 733 111	1 792 094	1 852 357	1 913 983	1 976 776	2 040 655	GBOS Population Projection
Average Household Size	8,9	8,9	8,9	8,9	8,9	8,9	8,9	8,9	GBOS Population Projection
Total households	189 864	195 124	200 529	206 083	211 792	217 658	223 688	230 398	GBOS Population Projection
Number of pregnant woman*	55 156	56 683	58 254	59 867	61 526	63 230	64 981	66 931	GBOS Population Projection
Number of infant	50 428	51 825	53 260	54 736	56 252	57 810	59 411	61 194	GBOS Population Projection
Number of under-fives*	285 233	293 134	301 254	309 599	318 175	326 988	336 046	346 127	GBOS Population Projection
Percentage of population living in urban areas	50,4%	51%	51%	52%	52%	53%	54%	54%	GBOS Population Projection

### 1.15 Roads, telecommunications, infrastructures

There are over 2,700 kilometers (1,678 miles) of road in the Gambia, 35 percent of which are paved including two main trunk roads lying on the North and South banks of the country. Roads in and around Banjul are mostly sealed. The road network has been improved, particularly north of the river with a view to linking up with routes in urban and rural settlements. There are plans to build more roads and bridges across the river, replacing the ferry crossings for freight in the rural areas.

The River Gambia runs the entire length of the country east to west, providing a vital communications link for cargo and passengers. There is only one International Airport which is situated in the Capital City, Banjul

There are 3 daily newspapers: *The Gambia Daily*, *The Daily Observer* and *The Point* and 6 radio stations (5 of which are private). In addition, there are three community radios. A national television service (Gambia TV) became operational in 1997. The country has an automatic telephone system and a good international connection across the country. Telecommunications are run by Gambia Telecommunication Company (Gamtel), a **parastatal agency**.

### 1.1.6 Type of farming practice.

The types of farming practices in the Gambia is subsistence and mainly done during the rainy season (June–November). There are also small scale livestock farming accounting for 5% GDP and horticultural farming during the dry season (December – May) contributing 4% to GDP. The agricultural sector employs 68 percent of the labour force, and accounts for 33.0 percent of GDP of The Gambia, the second largest sector in the economy. It employs 75 percent of the labour force and also the sole means of income generation for the majority of rural households below the poverty line. About 91 percent of the extremely poor and 72 percent of the poor in The Gambia are in the agriculture sector. The agricultural sector is the prime sector for investments to raise income, improve food security and reduce poverty and, therefore, meet the Vision 2020 objectives and the MDG “to halve the proportion of poor and those who suffer from hunger.” There is need to transform Agriculture from subsistence to a commercially-oriented agriculture but this is constrained by many factors. Environmental degradation and depletion, increased pests and disease outbreaks, decreased use of vital inputs and low level of labour supply due to rapid rural to urban migration are major constraints besetting the agriculture sector

### 1.1.7 Socioeconomic indices (macroeconomic indices, poverty indices, school enrolment rate, literacy Rate)

After a relatively strong macroeconomic performance in the late 1990s through 2000 characterized by steady real GDP growth averaging 3% per annum and a low inflation macroeconomic environment, a large (and unbudgeted) fiscal expansion in 2001 destabilized the macro economy. Subsequently, central government fiscal deficit, including grants, widened by 13% to 14.4% of GDP, driven by both lower domestic revenues (lower by 3.4% of GDP) mainly because of weaknesses in the collection of customs duties and a very large increase in expenditures (higher by 9.5% of GDP), including extra budgetary expenditures funded by the Central Bank and on-lending to a parastatal utility for the purchase of capital equipment. The drought in the following year 2002, which led to a 23% fall in agricultural output and a 3.2% fall in real GDP, further exacerbated macroeconomic instability. The fiscal expansion and exchange rate crisis that followed the drought was eventually brought under control in the fourth quarter of 2003, as the monthly inflation rate and the exchange rate both stabilized. The stability was further enhanced by a bumper harvest in the groundnut season for the 2003/2004 season, thereby boosting gross domestic product (GDP).

Overall, the economic performance in 2004 was very positive as tight fiscal and monetary policies prevailed throughout the year, helped by a remarkable revenue mobilization effort. The overall fiscal deficit as a percent of GDP (including grants) was 4.5% in 2004 from 4.7% in 2003. Annual inflation (end period) rate fell sharply to 8% in December 2004 from 18% a year earlier, mainly as a result of the tight monetary policy implemented, which also led to a substantial fall in interest rates.

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**Table 14: Macroeconomic Indicators 2000-2005**

2000	2001	2002	2003	2004	2005*	
Real GDP growth (market prices)	5.5%	5.8%	-3.2%	6.7%	5.1%	5.0%
Inflation (period average)	0.2%	8.1%	13%	17.6%	8.0%	4.0%
Overall Fiscal Deficit (% of GDP)	1.4%	14.4%	4.8%	4.7%	4.1%	5.7%
Government NDF (% of GDP)	2.7%	15.3%	2.5%	3.1%	0.4%	3.1
Broad Money Growth	34.8%	19.5%	35.2%	43.4%	18.3%	9.4
Gross Official Reserves (months of)	5.8	2.9	3.1	4.0	5.0	4.5

import cover)						
Debt Stock (% of GDP)	31.5	38.6	37.1	27.3	32.0	34.0

Reducing the rising levels of poverty continues to be a major challenge for the government and people of the The Gambia. Based on per capita consumption, the head count index (i.e. the percentage of poor people) in the country is estimated at 61.2% according to the 2003 National Household Poverty Survey (NHPS). The poverty gap is calculated at 25.9% whilst the poverty severity accounts for about 14.3%. Comparing this latest information on poverty with previous data, it is observed that poverty levels have been fluctuating or rising slightly; 60% in 1992, 63% in 1998 and 61% in 2003. The fluctuation aside, the poverty level in The Gambia is high with 68% of the population in rural areas and 40% of the population in urban areas living in poverty. Although poverty in The Gambia has been described as rural phenomenon, urban poverty is high and on the rise. About 53% of the population of The Gambia resides in urban areas.

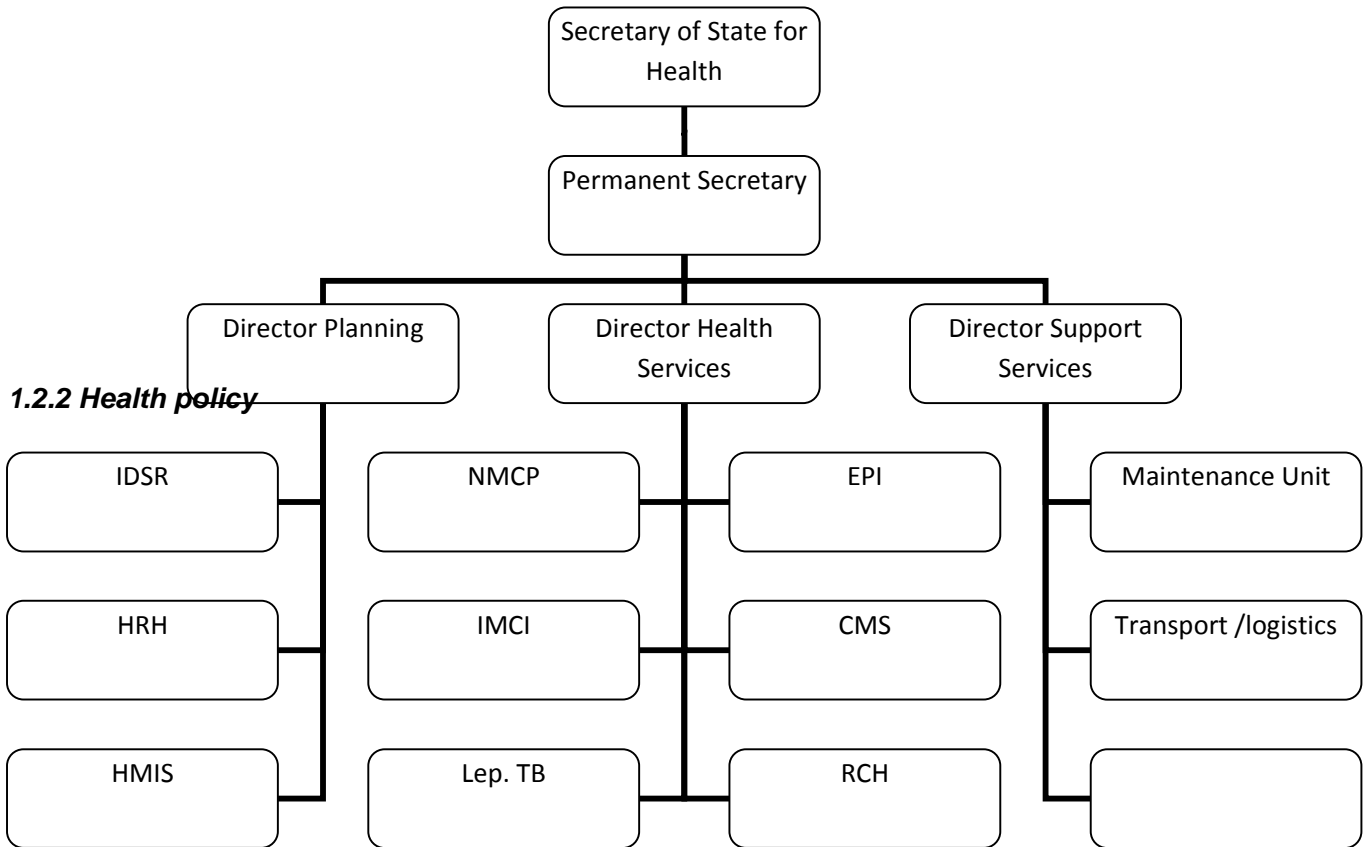
**Table 2. Socio-economic and health indicators**

Indicator	Rate/ Ratio	Source (and year)
Crude Birth Rate	41 per 1,000	2003 Census
Crude Death Rate	9 per 1,000	2003 Census
Growth Rate	2.77Percentage	2003 Census
Infant Mortality	93/1,000	MICS 2007
Under Five Mortality	131/1,000	MICS 2007
Maternal Mortality Ratio	556/100,000	National fistulae survey 2006
Women receiving Antenatal Care	97.8Percentage	MICS 2007
Deliveries by professionals	56.8Percentage	MICS 2007
Total Fertility Rate	5	2003 Census
HIV prevalence	1.4	National Sentinel Survey, 2007
Life expectancy at birth	63.4 years	2003census
Literacy	52.1Percentage	2003 census
Poverty index	59	2003 * UNDP update

In education sector, the Gross Enrolment Ratio (GER) at the Lower Basic Cycle remained stagnant at 91% over the period 2003-2005 with the madrassa contributing 15%. Enrolment rates at the primary and secondary levels, especially for girls in rural areas have risen considerably since 1998. Many initiatives have also been embarked upon to increase the retention and attainment of girls in school. However, despite the increase in enrolment over the period 2001-2005 and the expansion in classrooms and schools, the population grew at a much faster rate than the enrolment at the basic level

## 1.2 Institutional framework for Malaria control

Figure 2: Organization of the ministry of health



The Health Policy 2007 – 2020 “*Health is Wealth*” aims at the attainment of the highest level of health for the Gambian population by the year 2020. It is operationalized through the Health Master plan which is geared towards progressive reformation of the health services to deliver quality health care as a means to achieving the envisaged socio-economic development of The Gambia. This has now become the major driving factor in the health sector. The vision, mission, guiding principles and strategies proposed in the policy framework are a starting point for our new health agenda. The strategic direction of this policy builds upon these strengths, recognizes weaknesses, and takes advantage of the opportunities and guards against threats.

In addition to the Health policy, The Department of State for Health developed other relevant policy documents including: the Nutrition, Drug, Malaria, Reproductive and Child Health, Human Resource for Health, Maintenance, Mental Health, HIV/AIDS, Health Management Information System, National Blood Transfusion, and Information Technology. Traditional Medicine, National Health Laboratory, and Health Research polices, are being developed.

The Gambia has a three-tier system comprising the Primary, Secondary and the Tertiary levels. The primary level consists of the Village Health Services and Community clinics; the Secondary comprises the Minor and Major Health centers whilst the Tertiary made up of the General Hospitals and Teaching Hospital. At the primary level, there are 492 PHC village posts, which are clustered into circuits. The services at this level are delivered by village health workers, traditional birth attendants and other community volunteers. The community health nurses based in key villages supervise clusters of primary health care villages.

In contrast to primary health care where services are delivered mainly by the public sector, the secondary level made up of 52 public health facilities and 221 trekking sites is complemented by a number of private and NGO health facilities. Based on the population standards and using the minor health centre as unit of analysis (15,000 populations/per minor health facility) the health coverage per region is thus: Kanifing 18Percentage, NBR 100Percentage, LRR 60Percentage, Banjul 100%, URR 67Percentage, CRR 75Percentage and Western Region 30%.

The health sector is managed at two levels, the central and regional levels. Under the Department of State for Health there are three Directorates: Basic Health Services, Planning and Information and Social Welfare. For the management at the regional levels, the country is further divided into six health regions, each headed by a Regional Health Director (RHD). The Regional Health Teams are responsible for the primary and secondary health care facilities and their staff.

Although there are four general hospitals and one teaching public hospital in The Gambia, the services they provide are limited due to capacity constraints. They are complemented by a few private and NGO health facilities most of which are located in Greater Banjul Area whose services are unaffordable and inaccessible to vast majority of Gambian populace.

There are six Health Training Institutions producing graduates annually that feed the health system. They are: School of Nursing and Midwifery, School of Public Health of The Gambia College and School of Medicine of the University of The Gambia.

The Community Health Nurse and the State Enrolled Nurse Schools are under the Department of State for Health. Three of these schools (Nursing and Midwifery, Community Health Nurse and State Enrolled Nurse) produce different categories of nurses such as, Nurse Midwives, Enrolled Nurses, and Community Health Nurses respectively at an average of 30 graduates per year. The School of Public Health trains Public/Environmental Health Officers. The Regional Ophthalmic Training Program at the Regional Eye Care Centre trains Cataract Surgeons and Ophthalmic Nurses annually. The School of Medicine,

University of The Gambia, was established in 1999. It started producing graduates in Nursing and Public Health since 2003, and the first batch of Medical Doctors graduated in 2006.

The major causes of morbidity and mortality are malaria, diarrhoea, respiratory infection, malnutrition, tuberculosis and HIV/AIDS. Chronic non-communicable diseases such as diabetes and hypertension have recently emerged as key causes of morbidity and mortality. Maternal and infant mortality also continues to be a problem in The Gambia, with malaria being a major contributor to this public health challenge.

The factors contributing to the prevalence of these diseases include poverty, poor environmental sanitation, un-healthy lifestyles, high level of illiteracy and low awareness in disease causation, prevention and control.

### **1.2.3 Health system analysis**

The National Health Program is under the administrative control of the Department of State for Health and social Welfare. The health service is headed by a Secretary of State (SOS) for Health. Two deputy Permanent Secretaries and the Director of Health Services (DHS). The Director of Health services is in-charge of the Department of Health assisted by a Deputy Director, Chief Nursing Officer, Chief Public Health Officer, Chief Pharmacist and a core of Assistant Directors.

The general health services are delivered through three levels of care, namely primary: 16 dispensaries, 145 outreach stations, and 81 health posts; secondary: 6 major health centres and 5 minor health centres; and tertiary level which comprises 4 Government referral hospitals. In addition, there are 7 NGO hospitals and 13 private clinics.

### **1.2.5 Human resources**

The vision of the Department of State for Health is to maintain a healthy workforce that has the requisite skills, clearly defined cadres, and exhibiting the highest levels of professionalism. Staff will also adhere to professional ethics and standards, being accountable for malpractice and misuse. Promotion of staff and other benefits will be tied to quality performance and dedication to service. The Government will commit to building the human resource capacity with the aim of expanding, rationalizing and strengthening them to be more productive and efficient.

The Human Resources for Health (HRH) situation in the Department of State for Health and Social Welfare, The Gambia has been very critical. The complexity and challenges associated with human resources such as high attrition rates, shortage of skilled health workers, low morale among staff, deteriorating quality of care and other related problems are adequately captured in many of the reports and Government documents, for example the National Health Policy - the Public Expenditure Review – and the HRH Situational Analysis Report..

The estimated cost for operationalizing the process of Human Resource planning, development, management and maintenance is among the most expensive undertaking in the Department of State for Health. For example more than 50Percentage of the annual health budget is consumed on staff salaries. On the other hand, we should recognize, the importance of HRH, as one of the key determinants of health systems performance i.e. our PHC goal of equal access to quality health services is to a large extent dependent on the availability of adequate, appropriately trained, equitably distributed and well motivated HRH.

However, several issues are contributing to the weak institutional and human capacities for HRH planning and management. The gross shortage of indigenous skilled HRH, which is made worse by the very high attrition rate among skilled staff, is leading to high dependency on expatriates. Moreover, there are discrepancies between required and available skills for the services. Remuneration packages that do not match local cost of living, outdated and in some cases non- existence Scheme of Service, lack of clear guidelines for staff promotion, posting and transfer, poor working environment are among factors that contribute to low morale and negative work attitudes amongst health workers. Also, lack of regular staff supervision and performance appraisal system has contributed to the deteriorating quality of services.

These and other related issues have prompted an urgent need to develop and implement a HRH policy and matching Strategic Plan for the next five years for The Gambia.

The elaborated HRH policy statements are categorized under the following components: (1) The HRH Health Organization and Management Structure; (2) Decentralization Requirements; (3) HRH Planning and projections; (4) The Health Cadres, their Education, Training and Skill Mix; (5) HRH Distribution and Utilization; (6) Motivation and Retention; (7) Regulation and Maintenance of Quality; (8) Financing and partnership in HRH Development

The table below illustrates the human resources maintained by the Department of State for Health.

### ***1.2.6 State budget allocation to health and exceptional measures taken by the State for the health Sector***

The Government allocations to the health sector as a percentage of the total national budget continue to improve ranging from 6 to 8 per cent. This is still below the Abuja Declaration and MDG target of 15 per cent. The majority of the funding for malaria is being provided by the Global Fund to Fight HIV and AIDS, TB, and Malaria through the Gambia CCM.

### ***1.2.7 Priority programmes being implemented and their synergy with malaria control***

Under the Department of State for Health and Social Welfare (DoSH&SW), a number of priority programmes for disease control and prevention are being implemented as pronounced in the health policy and master plan. These are geared towards reaching the MDG targets and the attainment of vision 2020. These priority programmes include National Tuberculosis and Leprosy Control NLTP), Integrated Management of Neonatal and Childhood Illnesses (IMNCI), National AIDS Control Programme (NACP), Reproductive and Child Health (RCH).

The severity of malaria has been linked to HIV infection. The synergy between HIV and malaria is that people living with HIV are provided with ITN and malaria prophylaxis to reduce the incidence of malaria morbidity and mortality among HIV positive persons. Additionally, people living with HIV and malaria patients use the same basic health care services, laboratory facilities which are provided by the same staff.

The IMNCI syndromic approach provides a comprehensive care for children under five years. This package includes the treatment of malaria in the five years.

The Reproductive and Child Health Services aims at reducing infant, child and maternal morbidity and mortality of which malaria is major contributing factor. The RCH services which include malaria are provided at levels of the care system.

## **1.3 Overview of the Partnership framework**

The Malaria Control Unit (MCU) now National Malaria Control Program (NMCP) was created in 1990 in recognition of the importance of malaria as a major public health problem. In 1993, the unit was placed under the Directorate of Disease Control to give it the attention it deserves.

A clearly defined structure for management and coordination of the malaria control program exists, but difficulties in coordination and monitoring and evaluation of partner activities still remain. However there is strong political will for malaria control and prevention.

The effective management and co-ordination of the Unit and building of partnership with stakeholders requires adequate logistical support. Like many other units in the DOSH, the program relies heavily on

donor support. Over the last five years, funding for malaria control and prevention, both from government and donor agencies have increased, but funding gaps still exist. The existence of funding gaps poses an enormous challenge for effective coordination and management.

The importance of community participation in malaria control programs cannot be over-emphasized. There are many types of structures and organized informal groups, with considerable potential, in Gambian communities, and NMCP is taking full advantage of this great opportunity.

The existing structures that are expected to facilitate management and co-ordination of activities at regional level have broad mandates and a wide range of sectoral responsibilities. However, Regional Health Teams (RHTs) and peripheral facilities are being strengthened to enable them effectively manage, implement and monitor malaria control activities.

The National Malaria Control Policy (2002 -2007) has been reviewed to reflect the current situation of malaria interventions. This strategy is meant to translate the policy into broad areas of intervention.

Proper malaria control requires continuous appropriate training of relevant staff and partners. There is need to develop a comprehensive training plan and have adequate financial resources to implement them. Competence of the current staff of the unit and partners in the area of management could be enhanced.

### ***1.3.1 Extent of involvement of the population in decentralization***

The legislative frameworks, i.e. Local Government Act 2002 and Local Government Finance and Audit Act 2004 have been enacted for the operationalization of Local Government reform and decentralization programme. Following the adoption of the local government Act, election of all local government councils have been held. In all local government areas, structures such as Village Development Committees (VDC), Ward Development Committees (VDC) and Multi-Disciplinary Facilitation Teams (MDFT) have also been established to facilitate the decentralization process. Studies have been conducted to assess the state of preparedness of both the central and local government for the decentralization of selected services i.e. Agriculture, Health, and Education from the centre to the periphery. The findings of most of the studies indicated inadequate state of preparedness of both the central and the local governments. The major constraint identified was capacity problem, ranging from manpower, institutional, processes and logistics. The decentralization program is further derailed due to lack of a consolidated and well coordinated strategy.

### ***1.3.2 Partnership with the civil society (nongovernmental organizations, other community-based Organizations - CBOs)***

The National Malaria Control Programme collaborates with many local NGOs and CBOs in malaria control and prevention interventions. The NMCP collaborates with Action Aid The Gambia (AATG), Catholic Relief Services (CRS), Nova Scotia Gambia Association (NSGA), and Health Promotion and Development Organization (HePDO) in the area of ITN distribution and IEC/BCC activities. Medical Research Council (MRC) and Centre for Innovation Against Malaria (CIAM) also collaborate with NMCP in the area of research and surveillance. At community level many CBOs such as NYAAMA, Bill Clinton Youth Association, NaYAFS, NAWFA, CaDO and ADWAC are also involved ITN distribution and IEC/BCC activities on malaria control and prevention.

### **1.3.3 Coordination of development partners' interventions in the context of bilateral and multilateral Cooperation**

The Department of State for Health and Social Welfare is responsible for the coordination of development partners' interventions in the context of bilateral and multilateral Cooperation. The development/multilateral partners include the UN system, World Bank and ADB. These multilateral organizations support malaria control and prevention interventions by providing technical and financial to strengthen health service delivery and scaling up of key interventions. In the area of health, The Gambia enjoys bilateral technical cooperation with many sister countries such as the Federal Republic of Nigeria, Republic of Cuba, Egypt and Taiwan. Through bilateral arrangements, the Cuban government is providing doctors to support health service delivery. The Cuban medical team is also supporting training of Medical doctors and teaching at the University of The Gambia Medical School. The Republic of Taiwan is also providing financial support to the above programmes. The government of Nigeria provides technical assistance through the provision of doctors and nurses to improve health service delivery.

### **1.3.4 Partners involved in malaria control**

National Malaria Control Programme is responsible for coordination of malaria control at the national level. The NMCP will facilitate the need for rapid change that are needed by ensuring that approaches used are flexible, innovative, creative, cost effective and quality. The NMCP will also use a total approach involving both the health and non-health sector; a wide spectrum of interest groups, both at a horizontal and on a vertical level; promoting inter-sectoral, interdisciplinary and community participation and commitment through open lines of communication, networking and consultation in the form of health forums, tasks groups, etc.

Effective malaria control requires the participation of multiple partners at various levels with varying responsibilities. In the light of this, it is important that an effective framework for management, co-ordination and partnership is put in place at all levels. Such a system minimizes duplication of efforts and waste of scarce resources. Both the private and informal sectors will be encouraged to play increasing roles in Roll Back Malaria. The Department of State for Health (DOSH) will continue to provide leadership and conducive policy environment for implementation of malaria control interventions and strategies.

During the implementation of the previous strategic plan, NMCP established strong partnership with various stakeholders. There was also good collaboration with other line ministries, NGOs the private sector and community based organizations. This collaboration and partnership will be strengthened to sustain and build on the gains registered in reduction of malaria cases.

The RHTs will co-ordinate implementation of malaria control activities at the Regional level as well as build partnership with public and private sector partners and communities. They will provide leadership and direction in their regions with support from the Regional Co-coordinating Committee.

At the community level, VDCs and CACs will play a leading role in the implementation and co-ordination of malaria control activities. They will be supported by Multi-Disciplinary Facilitation Teams (MDFTs), basic health facility staff, NGO partners, volunteer advocates and the RHTs.

### **1.3.5 Coordination with other sectors of development**

Coordination of malaria control and prevention is done through the RBM partnership at national level. Partnership meetings are conducted at the central level to facilitate the development of malaria control and prevention strategies as well as its implementation. Different coordination mechanisms exist at different levels e.g. RBM partnership, Regional Technical Advisory Committees (TAC), Multidisciplinary Facilitation Teams (MDFT) and Village Development Committees (VDC). These coordination committees operate at different levels to plan and implement issues related to health and development. They consist of different sectors of development both public and private including NGOs.

### **1.3.6 Contribution of the private sector**

The private sector in The Gambia is currently investing in malaria prevention and control. A number of private clinics are involved in malaria control and prevention interventions. These include the provision of IPTp, ITN and malaria treatment services. Through their participation and provision of these services, they have contributed in increasing coverage of IPTp services as well as promoting the use of ITNs and increasing access to treatment by the target groups. This partnership will be strengthened and enlarged to include more private clinics in order to increase coverage.

Private sector companies namely: banks, petrol filling stations, radio stations and GSM services provide support to the health system through donations, structural maintenance of hospitals/clinics and the provision of essential supplies to the health facilities. The Association of Health Journalists is a key partner in the area of advocacy and social mobilization. With a broad membership, the association is playing a vital role in increasing awareness about malaria and reporting malaria and other health events happening in the country.

### **1.3.7 Collaboration with countries of the sub-region**

The Gambia is a member of many sub-regional initiatives namely: Health for Peace Initiative (HPI), West African Network for Monitoring Antimalarial Drug Resistance (WANMART) and West African Health Organization (WAHO). Currently, The Gambia is coordinating the HPI. The Gambia is also collaborating with Senegal, Guinea Bissau and Guinea Conakry in the area of malaria research and surveillance.

# CHAPTER 2

## MALARIA CONTROL UPDATE

## 2.1 Epidemiology

### 2.1.1 *Plasmodium* species concerned

In The Gambia, malaria is endemic with highly seasonal variation. Transmission during the rainy season (June – October) is intense with 80% of severe cases occurring in October 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* and *Plasmodium ovale* is rarely seen

### 2.1.2 Main vectors

Malaria is transmitted by the *Anopheles gambiae* complex, which includes *Anopheles gambiae* s.s., *Anopheles arabiensis* and *Anopheles melas*. *Anopheles gambiae* s.s. and *Anopheles arabiensis*, the major vectors, are distributed throughout the country. *Anopheles melas* is however restricted to the western half of the country and probably causes less disease burden. The annual entomological inoculation is in the range of 1 – 80 infective bites per person per year. Over 90% of clinical attacks occur during the rainy season. The highest rates are recorded in rural areas with intense transmission and more severe disease in the Upper River Region (URR), the easternmost part of the country, than in any other area. This is mainly due to the presence of ecological factors such as rice irrigation, flood plains and swamps which are favorable for mosquito breeding.

### 2.1.3 Population exposed and dynamic of transmission

**Table 3. Population at risk of malaria by epidemiological stratification**

Indicator	Number	Percentage	Source (and year)
Population living in stable malaria areas	1,735,464	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)

Although the whole population is at risk, children under five years and pregnant women are at increased risk developing severe malaria. During the implementation of the expired strategic plan, 39% of under-five visits and one in five of antenatal consultations to Reproductive Health and Child (RCH) clinics were due to malaria. In-patient mortality due to malaria in these two groups was 2.7 and 8.3%, respectively (DoSH & SW, 2002). The prevalence of malaria varies from area to area with highest rates being recorded in rural areas. There are differences between rural areas, with more intense transmission and more severe diseases in the Upper River Region than in any other area

Malaria cases occur in The Gambia throughout the year, but the majority of cases occur from September to October. The transmission of malaria during this period is intense and the number of cases seen at the peak of the season may increase nearly twenty fold compared with the number of cases seen in the middle of the dry season.

Although cases of malaria are still seen during the dry season, the number of positive blood smears is low (between 20 to 40% in comparison with a positive rate of over 70% during the peak of the rainy season) in rural areas and as low as 5 % increasing to 59% during the rainy season in a peri-urban setting.

### 2.1.5 Resistance to antimalarials and insecticides

The treatment of malaria was severely compromised by increasing resistance of *P. falciparum* to chloroquine. Therapeutic efficacy testing of chloroquine conducted in Basse, Mansakonko (1998) and Farafenni (2001) showed clinical failure rates of 4%, 14% and 19% respectively. In 2003, in Brikama Health Centre, chloroquine resistance was 28%. High levels of therapeutic failures to chloroquine, and significant increases in cases of severe anaemia (Bojang et al, 2005), have prompted a change in the first line drug for uncomplicated malaria. In 2004 the first-line drug for treatment of uncomplicated malaria was changed to combination treatment using S/P with CQ and in February 2008 a change to the more effective Artemisinin Combination Therapy (ACT) was implemented.

#### Evolution of resistance to antimalarials in The Gambia

Citation	Date	Site	Age	N	Drugs/Clinical failures			Parasitological failures	
					CQ	AQ	SP	CQ	AQ
Muller et al. (1996) TMIH 1: 124-132	Sept 1994	FF HC MRC FF clinic	6m-10y	300	Day7 23%  Day28 50%	8%  31%	6%  13%	24%  65%	7%  35%
Boele van Hensbroek et al (1998) TRSTM&H	1992								
Bojang et al 1998 TRSTM&H 92: 73-76	Aug-Dec 1995	MRC Basse Clinic; Sibanor	1-10y	405	SP Day7 1.5% Day28 10%	SP+CQ 1.5%  5%			
Seidlein et al 1998 AJTM&H	Jul-Dec 1996		1-5y	287	SP Day14 2.3% Day28	Coart  6.7%			

					3%	24%			
Seidline et al 2000 Lancet 355: 352-57	Nov-Dec1998	Fajara, Keneba, Njaba Kunda, N/Sanjjal, Basse	.6-10y	600	SP Day14 3.1% Day28 7.3%	SP/AS1 3.7% 7.0%	SP/AS3 1.6% 2.1%		
Seidlein et al 2001 TMIH	Sep-Dec 1998	FF HC	<18y	598	CQ Day14 20.2% Day28 30.2%	SP 2.7% 3.7%	SP/AS 0 0		
Sutherland et al 2003 AJTMH	Oct-Dec2000	FF HC	1-10y	428/536	CQ Day14 11% Day28 12.5%	CQ/AS 2% 8.8%		CQ Day14 11% Day28 73.3%	CQ/AS 49.1%
Dunyo et al, unpublished	Sep-Dec 2001	FF HC	1-10y	500	CQ Day7 23.8% Day28 30.2%	SP 2.8% 9.9%	CQ/SP 4.7% 6.7%		
Sutherland et al. In press	Sep-Dec2002	FF HC	1-10y	500	CQ/S P Day28	Coartem			

					10.5%	2.4%			
DOSH/MR C	Sep- Dec200 3	Brikama	1-5y		CQ  28%				

## 2.2 Background to malaria control

### 2.2.1 Milestones in the country's initial efforts

Prior to 1965, malaria control activities were organised through the Anti-Malaria Unit. Subsequent re-organization led to the establishment of the Vector Control Unit (VCU) under the auspices of the Ministry of Health. The Unit was responsible for the control of all vector borne diseases. In 1990-1991, in response to the emerging importance of malaria as a major public health problem in the Gambia, the Vector Control Unit was further re-organized. The Malaria Control Unit (MCU) was set up as a separate unit with the specific aim of developing a program to control the disease. In 1993, a major organizational reform of the Ministry of Health placed the Malaria Control Program under the Directorate of Disease Control.

### 2.2.2 Strategies already tested and overall results

The National Malaria Control Programme was responsible for:

- Overall coordination of the implementation of the activities.
- Prepare consolidated annual work plans from the divisional work plans.
- Prepare quarterly and annually reports and submit these to the RBM Task Force.
- Consider quarterly and annual reports submitted by DHT to the National Malaria Program.
- Facilitating the regular and timely operation of the National Steering Committee and its sub-committees.
- Provide timely feedback to directions received from the National Steering Committee and its sub-committees.
- Provide regular feedbacks and support to the division.
- Advocacy and resource mobilization.
- Conduct and supervise research activities in collaboration with research institutions.

### 2.2.3 Most recent programmes

#### Health Sector Financing

The main sources of health financing in The Gambia are government through the annual recurrent and development budgets, donor, NGO, and private out-of-pocket expenditures. The government manages manual accounts. In 2001, The Gambia expended US\$ 56 per capita on total (public and private) healthcare. A Health Financing Policy has not been developed.

However the government has introduced user fees that are generated from fees patient pay for health consultations. These funds are used to complement the government budget allocation for drugs. Despite this, health is seriously under-funded. Under-funding of the health sector is particularly acute at the primary and secondary levels. The health budget is disproportionately distributed favouring the tertiary level and urban over rural areas with hospitals currently accounting for nearly half of the total government resources and expenditures. Strategies to redress this imbalance include on-going advocacy to mobilize resources for health financing from traditional and non-traditional donors and the strengthening of cost sharing mechanisms for all levels of health delivery.

### **Procurement and Drug management systems**

Under the just ended World Bank funded Participatory Health, Population and Nutrition Project (PHPNP) there was focus on capacity building for drug management systems. Currently, processes for the selection, quantification, procurement, distribution and monitoring of drug use are codified, well regulated and operational and are being further strengthened. Given the heavy disease burden of malaria and its seasonal nature, malaria drugs and supplies should be procured timely to avoid any stock outs.

A drug policy and database have been established. DOSH is currently building new Central Medical Stores and is planning to revitalize the drug quality control system.

### **Health Management Information System**

The existing Health Management Information System (HMIS) has structures and personnel at central and divisional levels. The development of a Policy and selection of indicators have facilitated data collection for the health information system. The WHO recommended Integrated Disease Surveillance and Response (IDSR) strategy was introduced in 2000 to strengthen surveillance of country priority diseases, including malaria. The IDSR has been incorporated as part of the national HMIS and could assist in providing baseline data for all major diseases and interventions. Despite these advantages there are significant gaps o Limited technical expertise to adequately respond to the volume of data received at divisional and central levels; inadequate supplies and logistics affecting equipment and mobility and weak coordination and communication between different levels hinder the effective functioning of the system (Draft Health Management Information Policy, DOSH). o Although health data is systematically collected, it is mainly retrospective, derived from health facilities and does not address key questions needed to be answered by national public health programmes to make rational choices with the limited resources available. The bulk of the information is from the public sector with limited input from private clinics, hospitals and NGOs. The system is heavily reliant on data collection and compilation with less effort being put into analysis to support decision-making processes and to provide feedback to peripheral levels to influence the quality of care provided.

The existence of an elaborate health system comprising primary, secondary and tertiary levels provides an opportunity to scale up malaria interventions using a primary health care approach.

Also through the Roll Back Malaria partnership, more partners are participating in malaria control activities.

In the scaling up of the malaria program DoSH will implement malaria case management and the intermittent preventive treatment for pregnant women through all the health facilities in the country.

However there are several challenges that the system need to address. For example the implementation of the Health Action Plan was constrained by several factors that include inadequately equipped and staffed major health centres at divisional level; supervisory schedules for out reach activities were seriously compromised due to inadequate transport, fuel and spare parts; and inadequate capacity at all levels to select and process relevant data in timely manner hindered planning and management of health care delivery (HR situational )

These issues will be addressed through on going in-service and pre-service training of health staff and community volunteers at all levels in malaria related interventions. The project will also support the provision of effective anti-malarial drugs and other medical supplies.

The DOSH is taking steps to address constraints in the health system. In 2002 with support from WHO a situational analysis was conducted which revealed high staff attrition rate with severe understaffing in more rural areas. The development of an HRH Policy and long-term plan was commended by all stakeholders. This costed strategic Plan focuses on training, staff, motivation and retention strategies amongst others. However, the funding gap to implement the Plan has not been met. The Plan calls for more support for Community Health Workers with regards to supervision, logistics and salaries and for increased manpower. As a result, from September 2005, annual intakes in all nursing training schools were doubled. Other steps taken include the inclusion of a component on Human Resource Development in the Health Strategic Plan 2002- 2007, a detailed HRH database in relation to the payroll is being maintained to keep track of staff movements, a process is underway to decentralise HRH management to

the Divisional Health Teams and a Health Mapping Study and other related studies provided important details for HR planning. In the 2006 to 2007 national budget estimates, the government of the Gambia have allocated funding for staff incentives in order to increase the remuneration and motivate staff.

This proposal seeks further funding from the GFATM to address some aspects of the gaps identified in the public sector. Additional support will be required to recruit, provide performance incentives and train more Community Health Nurses who are a critical link in the Primary Health Care system and play a pivotal role in the implementation of malaria interventions at community level. Support will also be needed to upgrade the Public Health Training school and nurse training institutions, specifically to increase student enrolment of community health nurses, provide capital investments to improve the infrastructure and equipment base of the schools and to develop training programmes on HIV/AIDS related services and malaria case management.

**2.3 Current situation of malaria control**

**2.3.1 Objectives, strategies and expected results**

2.3.1.1 Objectives:

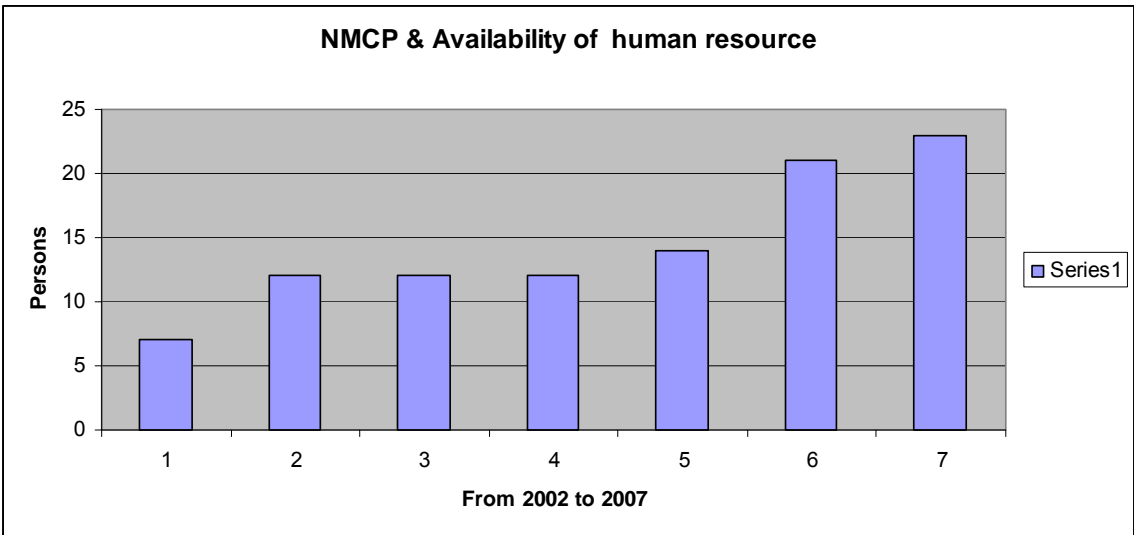
- To reduce malaria related mortality especially among children under five years and pregnant women.
- To reduce the number of severe malaria cases treated at health facilities.
- To reduce stock out of anti-malarial drugs at all levels of care.
- To increase the proportion of pregnant women on IPT.
- To increase the percentage of children under-five years and pregnant women sleeping under insecticide treated nets.
- To promote good health practices in malaria control.
- To strengthen partnership with all relevant sectors for the promotion of malaria control activities.
- To provide regular, timely and accurate information for decision-making on malaria control activities.

2.3.1.2 Strategies:

- 1) Increase community awareness in the management of malaria.
- 2) Increase community involvement in the management of malaria
- 3) Continuous training, supervision and evaluation of all health care providers at all levels.
- 4) Institute a mechanism for regular and timely feedback to health care providers.
- 5) Provision of appropriate diagnostic capacity at various levels.
- 6) Strengthen the referral system.
- 7) Provision of adequate quantities of efficacious anti-malarial drugs at community and facility levels at all times.

**2.3.2 Intervention frameworks**

Figure 3: Evolution of human resource during the last five years



In 2002, number of staff in

NMCP was 7 persons. In 2008 Coordination of NMCP grows to 23 persons with an increase rate of 70%

### **Equipments**

Table 4: Equipment planned versus achieved during the 5 years

N°	EQUIPMENTS PLANNED	NUMBER PLANNED 2002	NUMBER ACHIEVED 2007	%
1	Ambulances	46	10	21
2	Monitoring Vehicles NMCP	5	4	80
	Monitoring Vehicles for partners	7	7	100
3	Regional Monitoring Vehicles	12	6	50
4	Vehicles Technical Units	5	3	75
5	Motor cycles for CHNs	146	45	31
6	Pedal bicycles VHWs	792	659	83
7	Desk-top computers	48	31	65
8	Lap-top computers	62	30	48
9	LCDs	29	8	28
10	Servers	21	10	12
11	Printers	48	16	33
12	Fax machines	23	2	09
13	Internet Connections	6	1	17
14	Office furniture	10	4	40
16	Photocopiers	12	9	75
17	Microscopes	6	12	200
18	Generators	9	6	67
19	IEC Equipments	15	1	07
20	Telephone lines	6	6	100
21	Refrigerator	10	7	70

Figure 4: NMCP Office Complex



Since one year (2007), the NMCP is located in a new building with 12 offices and a meeting for 20 persons. Equipment of the building was completed by the Global fund Round 3. It's important to mention that the NMCP is sharing this building with the CIAM, National institution in charge of research.

The above Table shows that all equipment was achieved from 12% to 100%. The weakness is at communication level (12%). There is a need to mention that Hospitals receive 10 ambulances for the referral in order to reduce mortality and prevalence of the severe Malaria cases.

### 2.3.3 Consistency with other health programmes and modalities of collaboration

#### 2.3.5.1 Partnership

Table 5: Review of partnership

TYPE OF PARTNER		CURRENT ROLE / ACTIVITY	ROLE IN THE STRATEGIC PLAN IMPLEMENTATION	
			POPULATION COVERED/DISTRICTS	DESCRIPTION OF ROLE
NAME	YEAR OF BEGINNING			
ACTION AID	1992	Support to local communities and NGOs/ SR GF Malaria Grant	CRR and URR	Support to local communities and NGOs/ SR GF Malaria Grant
CIAM	2003	Capacity Building		Capacity Building
CRS	2004	Support to local communities and NGOs/ SR GF Malaria Grant	NBW, NBE, LRR and WR	Support to local communities and NGOs/ SR GF Malaria Grant
GFATM	2004	Financial support	Country-wide	Financial support
HEPDO	2002	Health Promotion, IEC and BCC	WR	Health Promotion, IEC and BCC
MRC	1950s	Research,/clinical trials and treatment	URR, NBE, LRR and WR	Research,/clinical trials and treatment
UNICEF		TA and financial support	URR and KMC	TA and financial support
WHO		TA and financial support	Country-wide	TA and financial support

#### 2.3.5.2 Performances of the NMCP

- Two technical committees exist, one for the anti-malaria drug policy change process, and another for surveillance and research two committees exist, one for the anti-malaria drug policy change process, and another for surveillance and research. The composition of these committees: Public, private, NGOs and research institutions;
- Malaria control policy is applied in the 6 regions of the country and targets all the population; all the 6 regions (country-wide) are implementing the RBM interventions
- There is a guideline for the case management which was revised in 2008. The anti- malarial drug policy includes all anti-malarial drugs available at Health facility level. There are established sentinel sites for drug efficacy testing.
- Vector resistance studies are conducted on regular basis; there are no sentinel sites created; vector resistance studies were conducted in the last 12 months.
- To a large extent of the new Policy of treatment and prevention, though private sector and confessional are yet to comply with the new treatment policy.
- In the expired policy there is chapter in partnership which deals with sectoral collaboration.
- There is IEC guidelines on promotion of malaria control strategies. Taxes and tariffs are waved from imported ITN material.
- Communities are involved Net re-treatment campaigns: LLINs Distribution, Sensitization, Environmental management (cleaning), home base care.
- NGO, Research clinics are provided with antimalarials from regional and Central Medical Stores.
- IEC activities are organized for all the key interventions. IEC activities include open field days, radio and TV sensitizations, community sensitizations etc.
- NMCP collaborates with MRC, CIAM and UTG.

- Some training programmes for NMCP staff have been included in the GF proposals 2330 health workers have been trained on malaria case management. From 2004 to date (from both public and private)
- 9 supervisors have been trained on malaria case management and IMNCI
- 59 health facilities received quarterly supervision during the last 12 months
- Supervisory reports are received from the regions

In term of quantity the NMCP had implemented 100% planned

2.3.4 Modes of financing of malaria control and amounts mobilized for ongoing malaria control programmes

Figure 5: Resources mobilised from 2002 to 2007

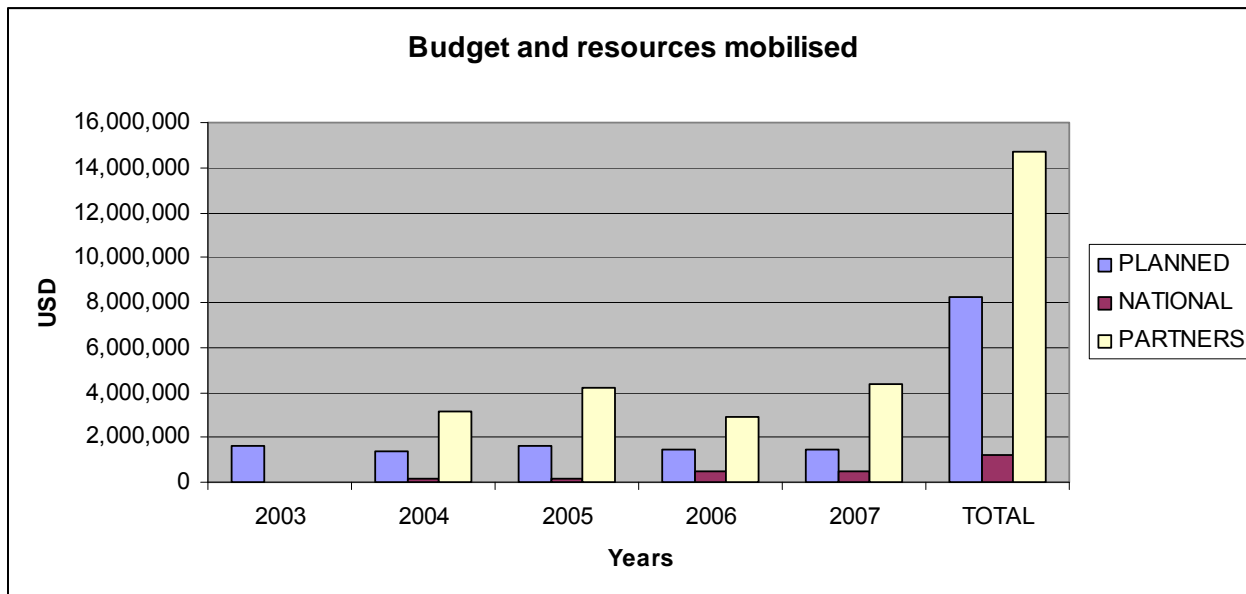
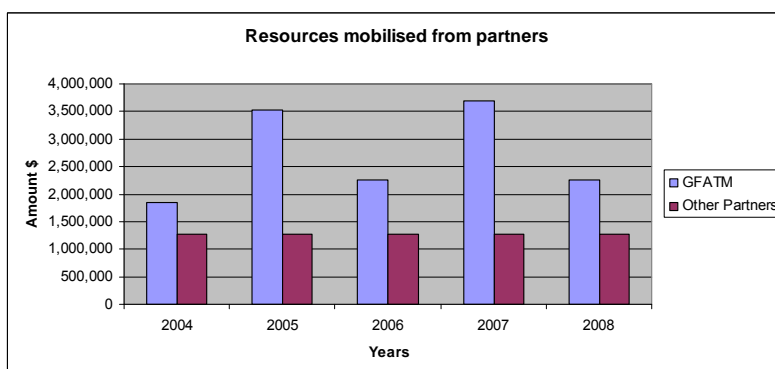


Table 6: Financial history

Organization	2004	2005	2006	2007	2008	2009	2010
Ministry of Health							
GFATM	1,838,063	3,524,937	2,247,591	100,000	2,247,591	1,838,063	-
CRS	12,000	100,000	100,000	300,000	100,000	100,000	480,000
WHO	480,000	300,000	300,000	100,000	300,000	300,000	230,000
UNICEF	230,000	100,000	100,000	200,000	100,000	100,000	12,000
GMP	552,600	200,000	200,000	3,701,184	200,000	200,000	552,600
TOTAL							

Figure 6°: Resources mobilised



The Gambia accessed to the Round 3 of the GFATM in 2004 and started the implementation of the Round 6 in 2007.

### 2.3.5 Main results achieved

#### 2.3.5.1 Case management

Significant efforts have been made to ensure early diagnosis and prompt treatment through improved access to effective antimalarial drugs. The quality of care in public and private health facilities was improved. The capacity of health facilities and community based malaria control activities were strengthened in order to reduce the malaria burden.

Six strategies were identified with at least 32 interventions/activities. The assessment shows that: one intervention was not achieved, 12 achieved partially achieved and the rest 19 fully achieved.

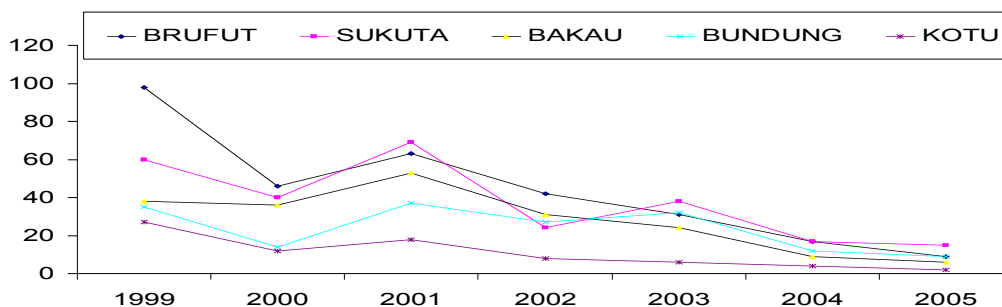
The Gambia is making significant progress toward 2010 target in term of coverage and impact on malaria morbidity and mortality. Since GFATM onset in 2003, coverage of target populations with malaria prevention and treatment interventions has been rising substantially in the Coastal Region with round 3 project and in other regions with the Round 6 project.

#### Progress concerning case management

The national goal is to reduce the severity of cases and the rate of deaths due to malaria. The specific targets consist to correctly diagnose at least 80% of suspected malaria cases are by 2010 and maintained through 2015 and to ensure that at least 80% of malaria patients are receiving prompt and effective treatment according to the standard treatment guidelines within 24 hours of onset of symptoms by 2010 and maintained through 2015.

Coverage in prompt treatment data from the costal region (MIS) show that twenty two per cent (22.1%) of children had a fever in the two weeks preceding the survey. Of these, 65.5% took antimalarial drug, 13.1% took the drug within 24 hours of the onset of the symptoms. About thirty nine per cent (38.7%) sought treatment from a health facility/provider within 24 hours of the onset of the symptoms. Data from MICSIII indicates that among the children reported to have had fever, 13.3 per cent were given anti-malarial SP/Fansidar, 57.6 per cent were given chloroquine, 1.6 per cent had Amodiaquine, 2.8 per cent had anti-malarial quinine drugs and 2.9 per cent other anti-malarial drugs. In general, about 63 per cent of children had some appropriate anti-malarial drugs and 65.3 per cent were given other medications such as Paracetamol/Panadol/Acetaminophan while 52.4 per cent had some appropriate anti-malarial drugs within 24 hours of the onset of symptoms.

Figure 7: Decline in malaria admissions in major health facilities in the Costal Region



## Impact on malaria morbidity in the Gambia

There is more and more evidence of malaria decrease in morbidity

Comparative data on malaria morbidity for the last nine years was reviewed from three health facilities in the Coastal Region, the MRC ward in Fajara, the government major health facility in Brikama and the Worldwide Evangelisation for Christ (WEC) mission health facility in Sibanor (Ceesay et al, 2008). Admission data from the MRC ward in Fajara show a 74% decline in the proportion of admissions attributed to malaria from 435/2530 in 2003 to 69/1531 in 2007 and similar data from the Sibanor site show a decline of 69% (797/2824 in 2003 vs 89/1032 in 2007). Outpatient records from the two facilities with laboratory data showed the proportion of consulting patients with confirmed malaria fell by 50% in Fajara and 82% in Brikama. Also in the MRC ward Fajara the mean age of children admitted has risen significantly from 3.9 years in 1999-2003 to 5.6 years in 2005-2007, which could indicate a reduction in the rate that children acquire immunity to malaria and thus may point to a fall in the malaria transmission rate. Surveillance data from all the health facilities in the Coastal Region using clinical malaria to define cases also showed declining outpatient consultations attributed to malaria from 78% in 2003 to 52% in 2006 and for inpatients from 58% in 2003 to 33% in 2006 (HMIS, 2007)

Health facility data also indicates a fall in malaria mortality. In the MRC Fajara health facility, the proportion of deaths attributable to malaria fell from 22/122 in 2003 to 1/58 in 2007 and in Sibanor these decreased from 7/115 in 2003 to 0/117 in 2007 (Ceesay et al, 2008). Surveillance data from all health facilities using clinical malaria to define cases also show declining mortality attributed to malaria in children under 5 from 125&231 in 2001-2002 to 108 &64 in 2005-2006 (HMIS, 2006). Despite the decline in malaria mortality and morbidity, countrywide trends in all-cause infant and under five mortality rates remain high (MICS2, 2000; MICS3, 2005/6). The most recent estimations, however, refer to the year 2003 as they are estimated using the indirect technique of Brass.

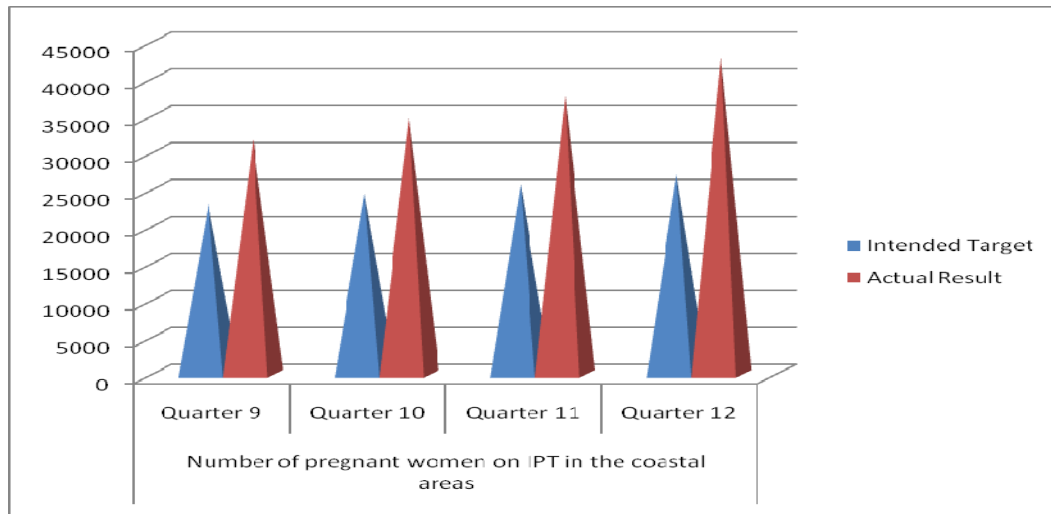
### 2.3.5.2 ITN

For ITN the national targets are to increase the utilization of ITNs by 80% of the target population by December 2015. This objective matches with RBM targets. The MIS 2007/2008, in the western region, reveals that eighty per cent (80.4%) of children under age five years were reported to have slept under a mosquito net the night preceding the day of the survey and 73.3% of children were reported to have slept under an ITN... For pregnant women, the percentages sleeping under a mosquito net (86.8%) . the nationwide MISCIII survey indicates that Out of 6,543 children aged 0-59 months, 63 per cent of mothers or caretakers reported that the child slept under a bednet the night prior to the survey and of this, 49.0 per cent were reported to have slept under an ITN. These figures suggest that despite evidence of progress, there are still important gap to reduce as a large proportion of children under five is reported not to have slept under a bednets (36.7per cent)

### 2.3.5.3 Malaria in pregnancy

The goal related to malaria in pregnancy is to reduce the incidence of malaria in pregnancy from 8% to 5% by the year 2015 while specific targets are to increase ITN usage from 65% to 90% by 2015 and to increase IPT 2 uptake from 33% to 80% by 2015. These objectives are in line with RBM targets and despite evident progress there are still room for improvement. From the MICS3, of the 3,070 women interviewed, 59.1 per cent took medicine to prevent malaria during pregnancy, 21.1 per cent took SP/Fansidar only once, 32.5 per cent took SP/Fansidar two or more times. In the western region, the MIS 2006 shows that Eighty five per cent (85.2%) of mothers reported taking an antimalarial drug for prevention during their last pregnancy. About ninety per cent (98.5%) of mothers received the antimalarial drug during a routine ANC visit. Of the mothers who took antimalarial drugs, 46.6% took the recommended 2 or more doses of IPT. Similarly, 45.2% of mothers who received IPT during an ANC visit took 2 or more doses of the medication

**Figure 8: Number of Pregnant women on IPT**



### 2.3.6 Constraints and difficulties encountered

1. Limited availability of funds to implement all the activities proposed in the strategic plan
2. Financial gap analysis was not conducted during the design and development of the National Malaria Strategy 2002 - 2007
3. Funding was not available to conduct midterm evaluation of the strategy
4. Limited capacity at the national Malaria Control Program Unit (human resources, equipment, IT, transportation, logistics, etc.)
5. Monitoring of program implementation was not conducted regularly
6. Linkage with the Regional health teams was weak
7. Partnership coordination was inadequate
8. Malaria specific treatment guidelines were not available
9. Inadequate supply of anti-malarial drug and equipments
10. Limited laboratory services and capacity
11. Inadequate skilled and number of health personnel at health facility level
12. The centralized procurement system of government delays access to much needed supplies for the malaria control program.
13. Inadequate storage capacity at central and regional levels
14. Inadequate transport facilities to transport drugs at all levels
15. Inadequate and inappropriate drug storage facilities in most public health facilities
16. low staff motivation
17. Weak Health Management Information System
18. Inadequate IEC and BCC activities at community level for malaria
19. Inadequate community participation in malaria control activities
20. Inadequate supplies of ITN and ITN commodities
21. Inadequate supply of bio-larvicides

### 2.3.7 SWOT analysis

**Table 7: SWOT analysis**

STRENGTH	WEAKNESS	OPPORTUNITY	THREAT
<b>Promotion of LLIN</b>			
provision of ITNs to all pregnant women through ANC and mass net distribution involvement of key partners in the promotion of ITNs integration of ITNs in the health care delivery system mass bed net dipping campaign	Inadequate and interrupted supply of nets Data on awareness not captured Inadequate storage facilities at all levels Limited dissemination of malaria/ITN policy to partners Demand for LLINs is more than supply Inadequate staff in RCH for ITN distribution	advocate for the inclusion of ITNs in dowry for brides ITNs are socially and culturally accepted in the communities availability and willingness of community volunteers in dipping and distribution of bed nets	preference of net shape and size misconception about treated bed
<b>Promotion of IRS</b>			
Availability of trained personnel for spraying Availability of trained supervisors at regional level Equipment, protective gears and chemicals available Experimental protocol in place A good distribution system in place Good storage facilities at regional level	Inadequate storage facilities for the insecticides and equipment at regional level Inadequate spraying equipment for IRS IRS yet to be implemented in other regions Inadequate resources for the IRS strategy Low capacity for IRS implementation at regional level Inadequate awareness about the strategy of IRS within communities Inadequate community involvement in the planning process	Existing community support and structures Spray-able structures are available	No health insurance cover for spray men and supervisors Erratic supply of insecticide Inadequate donor funding for DDT Exposure to chemical hazards and physical injuries
<b>Larval control</b>			
	Larviciding is limited to certain regions within the country (Greater Banjul area) Inadequate supplies of larviciding and equipment for application Low community involvement in larviciding Inadequate knowledge about larviciding at community level No support available for communities to conduct larviciding		
<b>Malaria in Pregnancy (IPT)</b>			
	Lack of data on awareness of IEC/BCC activities on IPTp Lack of KAP studies on IPTp in these regions Low coverage for IPTp 2 No data captured on effectiveness on IPTp tools IPTp services not delivered by all private sector / NGO partners Embassies not fully aware of IPTp services Late booking for ANC services Inadequate data management skills among health workers		
<b>Case management/ Diagnosis</b>			
strengthening and expansion of laboratory services continuous training of health staff	Limited access to diagnostic services in some regions Lack of 24 hrs laboratory access	increased support from development partners availability of alternative diagnostic	donor fatigue staff attrition

<p>the use of rapid diagnostic test kits quality control on malaria microscopic slides</p>	<p>Inadequate and interrupted electricity supply Limited diagnostic services are being provided by partners Inadequate human resource at the level of the lab No routine maintenance of microscopes Inadequate human resource at the level of the lab National quality control system do not cover the private sector</p>	<p>methods improved networking and partnership existence of health training institutions</p>	
<b>Case management/ Treatment</b>			
<ul style="list-style-type: none"> <li>- there is a computerized inventory control system for drug management and a manual back-up in place</li> <li>- a sentinel surveillance system in place</li> <li>- infrastructure for drug quality control in place</li> <li>- availability of 5 regional pharmaceutical stores out of the 6 health regions</li> <li>- the availability of standard treatment guidelines</li> <li>- a functional primary health care system</li> <li>- availability of effective anti-malarial drugs at public health facilities and some private clinics</li> <li>- improvement in the availability of anti-malarial drugs in the public health system</li> <li>- Capacity to mobilize funds to provide anti malaria (R3 + R6)</li> </ul>	<p>Inadequate incentives given to VHWs Inadequate resources(antimalarial drugs and human) to support malaria case management at facility level Delay in health care seeking early treatment No data on health care providers prescribing practices Some private sector /NGO not adhering to the national malaria treatment guideline VHWs not using RDTs in malaria diagnosis No additional staff deployment during malaria peak season at facility level No indication on the proportion of health workers adhering to national treatment guidelines Antimalarial drugs in private sector/ NGO are not tracked and there are no limits for mark-ups</p>	<p>improved technology made it possible to have electronic back-up for drug supplies management increased funding opportunities such as: Global Fund, UNICEF, WHO, NGOs, private sector, etc. the existence of regional networks on drug efficacy such as: WANMART improved road network</p>	<p>high staff attrition donor withdrawal global economic crises drug resistance unstable price of drugs limited choice of anti-malarial drugs</p>

### **2.3.8 Programmatic gaps**

A comprehensive programmatic gap analysis has been conducted to identify individuals who will be needing ACTs, SP for pregnant women, and ITNs. These will comprise the gaps for each of the three components that are being proposed in this project.

#### **Gaps in ACT**

In scaling up malaria case management into the remaining five health divisions, ACT will be used as the first line treatment of uncomplicated malaria. The programmatic gap analysis focused on individuals that will be needing ACT, in the remaining five health divisions. Using the gap analysis table provided in Attachment 3, annually, between 2007 to 2011, an estimated 1,517,787 individuals will have access to ACT as first line treatment for uncomplicated malaria. Out of this total, ACT for 143,539 individuals will be funded under existing programs including the approved GFATM Round 3 proposal. Based on this analysis, the estimated gap is of 1,454, 132 individuals who will need access to ACT in the remaining five health divisions will be targeted in this project between 2007 to 2011. This number excludes pregnant women as they will be using quinine as a first line treatment.

#### **Gaps in IPT:**

Regarding the provision of IPT services for pregnant women, annually, between 2007 to 2011, an estimated 140,931 will need two doses of SP. Of these women, 24,315 will receive SP funded by existing funded programs including the approved GFATM Round 3 proposal. Based on this analysis an estimated 55,568 pregnant women will need two doses of SP annually between 2007 to 2011.

#### **Gaps in LLIN:**

The provision of ITN is one of the key interventions in the control of malaria in the remaining five health divisions. Between 2007 to 2011, an estimated 517,243 will need ITNs in the remaining five health divisions. Out of this total, 27,694 will be catered for from existing malaria programs including funding from the Global Fund round three grant. Based on these analysis 517,243 will need ITNs annually from 2007 to 2011.

#### **BCC**

Activities comprised only information and education (IEC) regarding malaria are being undertaken. In this proposal promoting behaviour change will be under taken. Also a table has been provided below, illustrating a detailed analysis of program gaps that exist in the service delivery areas of the three components; namely malaria case management, IPT, and ITN.

Please find below a detailed programmatic gap analysis indication the gaps identifies for the coverage and specific interventions that would be addressed in this project.

#### **Additionally:**

Funds requested under this proposal will complement existing and planned resources for the implementation of the National Malaria Strategic Action Plan (2008-2015). Under the Medium Term Expenditure Framework government funding for the Strategic Plan covers the cost of salaries, drugs, laboratory supplies, insecticides, operative service costs (building, electricity, and water), training, including refresher in-service courses and essential medical supplies and equipment. The Government of The Gambia is and will continue to mobilize funding from its traditional donors to finance activities proposed in the National Strategic Action Plan for Malaria.

In the past it had successes in financing inputs for malaria control such as mosquito nets, insecticides, and IEC materials with funding provided by bilateral and development partners, NGOs and the private sector. However current funding for drugs, laboratory and other medical supplies is not adequate to implement any meaningful scale up activities in the short term.

Since The Gambia is committed to attaining the Abuja Targets and MDGs, in the short term it will be necessary to access additional funding from its non-traditional donors to complement its current funding levels in order to scale up current malaria interventions to achieve these targets and goals. Under the approved GFATM Round 3, funds from the Global Fund remain additional to existing funds committed by the DOSH and its partners through its priority programmes in the fight against malaria. This demonstrates both political commitment and technical leadership to ensure that Global Fund resources do not replace existing funding sources. A similar arrangement is proposed for the implementation of this proposal.

The goal of this proposal is to reduce by 50% malaria related morbidity and mortality in the population by focusing interventions on vulnerable groups (children under five and pregnant women) in The Gambia by 2011. This will involve extension of the interventions started in Western Division under funds received in GFATM round 3 to the remaining five Health Divisions of the country.

The overall aim is to adopt international best practices for the delivery of interventions so as to reduce the burden of disease. To effectively manage cases, the more effective ACT will be used at all levels of the health system. This will be complemented by the use of long lasting nets for pregnant women, children under five, PLWHAs and differentially able and the provision of insecticide (KO Tabs) for existing nets. IPTp will be scaled up to the remaining five health divisions during the project period.

# CHAPTER 3

## THE EIGHT - YEAR PLAN

### **3.1 Logical framework**

A need assessment was jointly conducted by AFRO, WHO country office and NMCP in 2008. The assessment identified strengths, challenges, gaps, weaknesses, opportunities and threats to the program implementation. The findings of the need assessment have guided the development of this strategic plan in terms of goal, objectives and strategies.

#### **3.1.1 Goal:**

Malaria control programme in The Gambia 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**

- I. To increase percentage of suspected malaria cases correctly diagnosed and treated from 39% 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 33% 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 63% to 80% by end of 2015;
- V. To improve malaria control management and partnership

#### **3.1.4 Strategic orientations**

- A. Scaling up of multiple prevention methods
- B. Improvement of access to prompt and effective treatment
- C. Strengthening partnerships for malaria control.
- D. Strengthening Management of the NMCP including Monitoring/Evaluation and operational research
- E. Strengthening the health systems at all levels

#### **3.1.5 Expected results**

1. By 2015, at least 80% of suspected malaria cases would be correctly diagnosed and treated at facility and community level;
2. By 2015, at least 80% of severe case fatality would be reduced;
3. By 2015, at least 80% of pregnant women would use fully IPT;
4. By 2015, at least 80% of Households would use prevention methods as LLIN, IRS, IVM,... (specially handle at least 3 LLIN );
5. By 2015, at least 80% of children under five years would use prevention methods as LLIN
6. By 2015, at least 80% of the pregnant women would use prevention methods as ITN, IRS, IVM,...;
7. By 2015, Malaria control management will be improved and the health system would be strengthened;
8. By 2015, Partnership for malaria control would be improved for sustainable reduction of malaria burden in The Gambia.

### 3.1.6 Main interventions and modalities of implementation

Table 8: *Main interventions*

Specific objective	Expected result	Core interventions	Modality of implementation
To increase percentage of suspected malaria cases correctly diagnosed and treated from 39% 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		Expand laboratory services Increase availability of RDTs to increase access to diagnosis Increase access to laboratory 24 hrs availability of electricity supply Provide regular maintenance of microscopes Build capacity on malaria microscopy and malaria diagnosis Provide additional incentives to VHWs Adequate resources (ant malarial drugs and human) should be provided to support malaria case management at facility level
To reduce severe case fatality by 80% by end of 2015	By 2015, at least 80% of severe case fatality would be reduced		
To increase percentage of pregnant women using IPT2 from 33% to 80% by end of 2015	By 2015, at least 80% of pregnant women would use fully IPT		Data on awareness of IEC/BCC activities on IPTp should be collected KAP studies should be conducted on IPTp in these regions Conduct operational research to establish barriers to IPTp 2 up-take and use research findings to address the issues
To increase percentage of people using prevention methods as ITN, IRS, IVM,... (specially the children under five years and the pregnant women) from 63% 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 )		The national malaria policy should be made available to all partners implementing malaria activities. The existing policy should also captured ITNs scale-up and the specification of the size and colour preferred by the communities
	By 2015, at least 80% of children under five years would use prevention methods as LLIN		There should be regular and timely distribution of Nets to partners Data on awareness should be captured There should be adequate storage facilities available at all levels
	By 2015, at least 80% of the pregnant women would use prevention methods as ITN, IRS, IVM		Marginal bottleneck budgeting (MBB) tool to cost the NMCP to cost the malaria policy and strategic plans Increase availability of ITNs cover all population at risk New LLINs distribution points should be open in all regions Mobilize more resources for full implementation for IRS program Provision of appropriate storage facilities for the insecticide and equipment Procure more spraying equipment and insecticide Involvement of communities at all levels of planning and implementation Increase awareness on the IRS strategies Build capacities for IRS implementation at all levels Strengthen quality control activities for IRS Larviciding should be scale-up to other regions to cover wider areas Strengthen community sensitization on larviciding Increase resource mobilization for larviciding Build factory to produce larvicides in the Gambia Build capacity at regional level on larviciding

To improve malaria control management and partnership	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 The Gambia		

### **3.2 Plan of action and Budget**

#### **3.2.1 *Plan of action (2009 – 2010)***

***Table 9: Plan of action (2009 – 2010)***

**See annex one**

#### **3.2.2 Estimated costs/Budget**

### 3.2.4 Financial gaps analysis

**Table 10: Financial gap analysis**

	Planned		Estimated					2016
	2009	2010	2011	2012	2013	2014	2015	
Annual amount	18 384 790	18 384 790	18 384 790	18 384 790	18 384 790	18 384 790	18 384 790	18 384 790
Current and future resources to financial need								
National funding resources	530 711,29	543 979,07	557 578,55	571 518,01	585 805,96	600 451,11	615 462,39	630 848,95
Total of Line B entries □ Total current & planned DOMESTIC:	530 711	543 979	557 579	571 518	585 806	600 451	615 462	630 849
WHO	380 500	310 500	320 500	300 500	380 500	320 500	350 500	320 500
UNICEF	65 000	65 000	65 000	65 000	65 000	65 000	65 000	65 000
CRS	113 471	100 000	100 000	100 000	100 000	100 000	100 000	100 000
Total of Line C entries □ Total current & planned EXTERNAL (non-Global Fund grant) resources	558 971	475 500	485 500	465 000	545 500	485 500	515 500	485 500
Line D: Annual value of all existing Global Fund grants for same disease: Include unsigned 'Phase 2' amounts as "planned" amounts in relevant years	4 829 919	3 267 932	3 616 083					
Line E → Total current and planned resources (i.e. Line E = Line B total + Line C total + Lind D Total)	5 919 601	4 287 411	4 659 161	1 036 518	1 131 306	1 085 951	1 130 962	1 116 349

<b>Calculation of gap in financial resources and summary of total funding requested for the Strategic Plan</b>									
<b>Line F → Total funding gap</b>									
(i.e. Line F = Line A – Line E)	12 465 188	14 097 379	13 725 628	17 348 272	17 253 484	17 298 839	17 253 827	17 268 441	

**Table 11: Summary of overall funding gaps: by intervention area (USD)**

Core interventions	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
ITNs	23 040	43 393	569 107	1 624 144	1 888 267	2 567 613	3 155 013	3 421 445	13 292 020
IRS	1 172 724	1 172 724	1 806 573	2 882 855	2 140 804	1 857 730	2 767 202	3 889 750	17 690 362
IPT	6 660	3 721	15 253	20 039	39 892	59 337	64 031	61 748	270 681
Diagnosis	46 708	60 284	1 130 526	907 252	84 523	095 005	1 128 209	162 418	314 926
Treatment	(82 540)	340 110	2 212 185	1 231 966	1 314 528	1 580 530	1 165 923	854 482	8 617 183
IEC	411 867	4 320 317	4 669 863	4 539 713	656 953	4 982 834	4 873 514	982 834	7 437 895
Advocacy	36 630	11 630	326 630	326 630	26 630	36 630	336 630	36 630	638 040
M&E	21 588	10 530	236 870	453 700	97 392	15 885	542 985	46 635	225 585
Program Management	1 295 561	3 597 843	2 474 097	2 434 797	2 564 833	4 030 229	2 694 719	2 676 269	21 768 348
Storage	87 000	246 080	246 080	246 080	246 080	246 080	186 080	186 080	1 689 560
Deployment/ Transportation	70 958	212 235	368 723	396 931	420 769	183 012	194 049	355 175	2 201 852
Human Resource	171 056	250 770	523 753	603 560	879 947	1 049 035	1 073 433	1 133 222	5 684 776
Training	(131 812)	91 032	280 567	305 154	394 067	596 174	428 067	596 174	2 559 424

Laboratory Equipment	(9 410)	106 453	144 079	67 242	35 612	167 751	201 469	173 948	887 144
TA	-								-
<b>TOTAL</b>	<b>7 820 029</b>	<b>11 467 123</b>	<b>15 004 306</b>	<b>16 040 063</b>	<b>16 290 298</b>	<b>19 367 844</b>	<b>18 811 324</b>	<b>20 476 809</b>	<b>125 277 796</b>

**Table 12: Current financing by Year (2008 – 2015)**

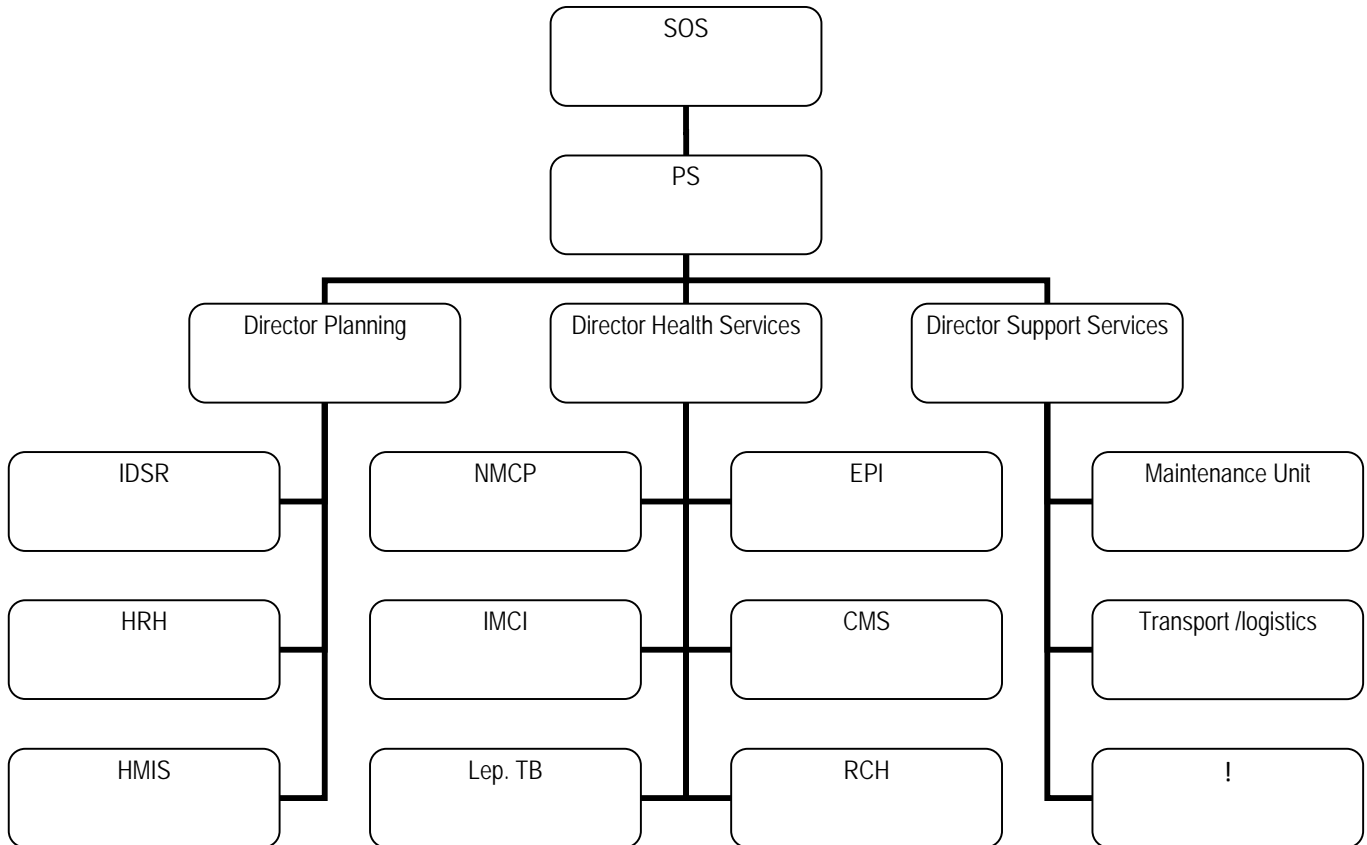
Organization	2008	2009	2010	2011	2012	2013	2014	2015	Source
DOSH (GOV)	480 000	530 711	543 979	557 579	571 518	585 806	600 451	615 462	Government Recurrent and Development Expenditure 2009
GFATM Round 3	1 946 010	2 386 009	-	-	-	-	-	-	GFATM Round 3 Proposal
GFATM Round 6	3 737 464	3 345 732	3 736 860	3 442 008	1 808 042	-	-	-	GFATM Round 6 Proposal
WHO	300 000	380 500	310 500	320 500	300 500	380 500	320 500	350 500	WHO Biannual 2008-2009
UNICEF	100 000	65 000	65 000	65 000	65 000	65 000	65 000	65 000	UNICEF Annual Work Plan
CRS	100 000	113 471	100 000	100 000	100 000	100 000	100 000	100 000	CRS Private Fund 2008/9
GATES PARTNERSHIP	200 000								Gate partnership proposal
IRISH AID	134 837	75 148	101 680						Irish AID Proposal
<b>Total Funds Available (\$)</b>	<b>6 998 311</b>	<b>6 896 571</b>	<b>4 858 019</b>	<b>4 485 086</b>	<b>2 845 060</b>	<b>1 131 306</b>	<b>1 085 951</b>	<b>1 130 962</b>	



### 3.3 Administration and management of the NMCP

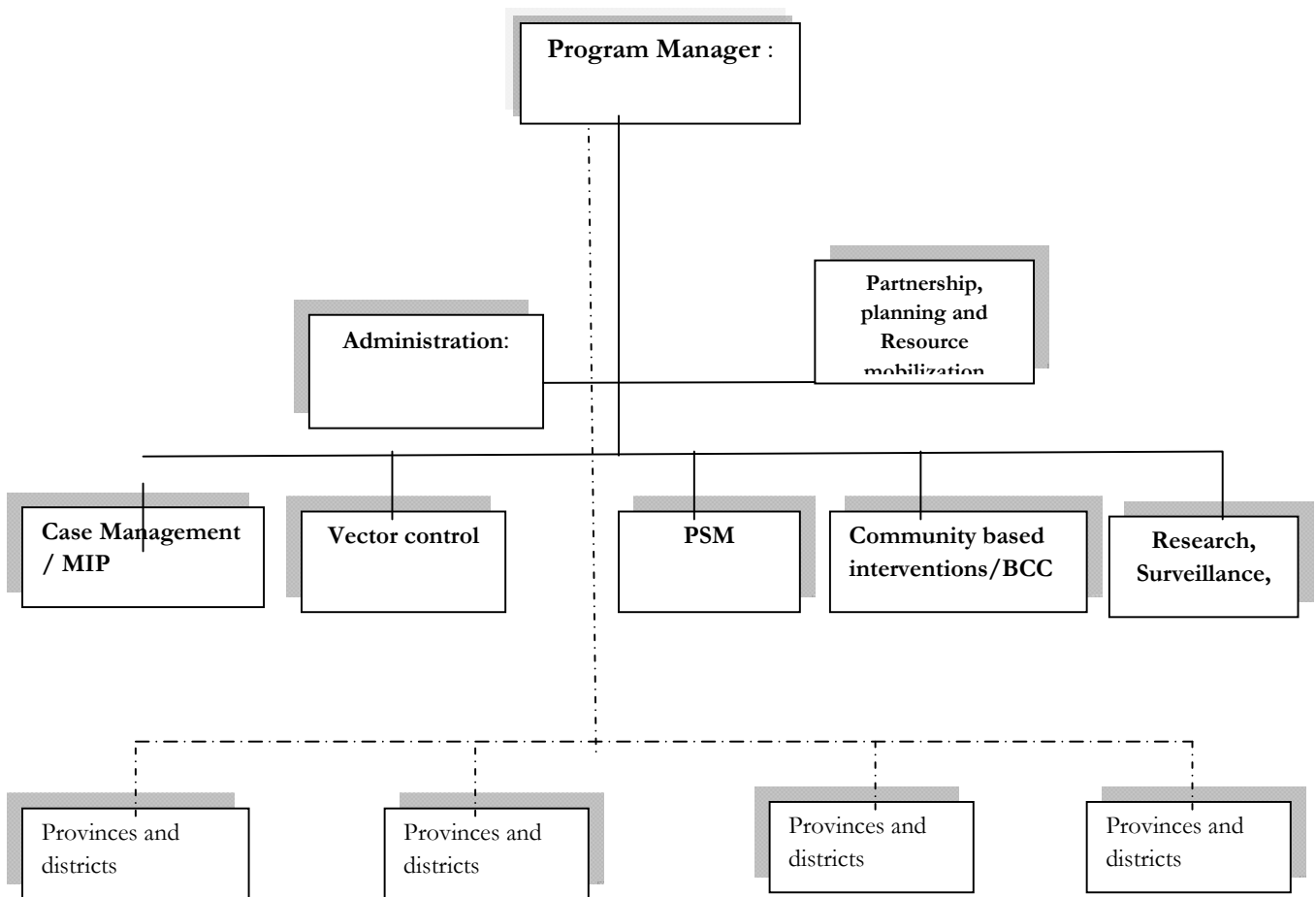
#### 3.3.1 Institutional framework

Figure 9: Organogram of DoSH & SW



NMCP Organogram

Figure 10: NMCP Organogram



The National Malaria Control Programme is part of the Organogram of the Department of State for Health and Social Welfare (DOSH & SW).

The NMCP is one of the six (6) sections of the Direction of Health Services and social services welfare. It represents the State structure in charge of the management of the national policy and strategies to roll back malaria in The Gambia. NMCP coordinates and oversees the application of guidelines on malaria prevention and treatment while the operational level implements the guidelines in the field.

### **3.3.2 Management procedures**

The Malaria Control Unit (MCU) was created in 1990 in recognition of the importance of malaria as a major public health problem. In 1993, the MCU was placed under the Directorate of Disease Control to give it the attention it deserves. The Unit is headed by a medical doctor, assisted by five public health officers and one technical assistant from Cuba.

Despite the continuing management and coordination difficulties, efforts to control malaria in the country are backed up with a strong political will. A clearly defined structure for management and coordination of the malaria control programme exists.

There is a multi-sectoral National Malaria Control Committee, chaired by the Director of Medical Services (DMS), and a Malaria Control Task Force, but structures at the divisional and community levels for management and co-ordination remain weak. Another issue is the lack of integration of the NMCP with other programmes, particularly at divisional and community level, which hampers effective management and co-ordination. The availability of a strategy should redress this situation.

Both malaria and the NMCP are perceived in many circles as issues to be addressed exclusively by the DOSH and its public sector partners, rather than a developmental problem meant to be addressed by all. This misconception makes effective co-ordination and program management difficult. Transition, continuity and sound institutional memory are essential for proper coordination, management and partnership building. The rapid turnover of staff in the DOSH and collaborating public sector partners is a constraint in this regard.

Proper malaria control requires continuous appropriate training of relevant staff and key community partners. There is need for the DOSH to develop a comprehensive training plan and have adequate financial resources for training. Competence of the current staff of the unit in the area of management could be enhanced.

### **3.3.3 Monitoring and evaluation system**

3.3.3.1 M&E plan (see annex two)

3.3.3.2 Establish a dissemination mechanism

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

3.3.3.4 Control and audit

3.3.3.5 Annual review meeting

3.3.3.6 Mid-term evaluation

3.3.3.7 Final evaluation

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