





# GAMBIA RBM Needs Assessment THE GAMBIA

**DECEMBER 2008** 

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# List of acronyms

**AATG** Action Aid The Gambia

**ACU** Agricultural Communication Unit

ACS Advocacy, Communication and Social mobilization

**ADB** African Development Bank

**ANC** Ante-Natal Clinic

**CBO** Community Based Organization

CIDA Canadian International Development Agency

**CCF** Christian Children's Fund

CCM Country Coordination Mechanism
CCSI Community and Civil Society Initiatives

CHN Community Health Nurse
CHW Community Health Worker
CMS Central Medical Stores
CNA Community Nurse Attendant
CPA Child Protection Alliance
CRD Central River Division
CRS Catholic Relief Services

CU Central Unit

**DHT** Divisional Health Team

**DOSA** Department of State for Agriculture **DoSH** Department of State for Health

**DOTS** Directly Observed Therapy, Short Course

**ECD** Early Childhood Development

**ECHO** International Health Service Provided, UK

**ESU** Epidemiology and Statistics Unit

EU European Union
GDF Global Drug Facility

**GEAP** Gambia Environmental Action Plan

**GF** Global Fund

**GFATM** Global Fund for HIV/AIDS, TB, Malaria **GFPA** Gambia Family Planning Association

GNP Gross National Product
GPF Gambia Police Force
GPU Gambia Press Union
GRCS Gambia Red Cross Society

**GRTS** Gambia Radio and Television Services

**GSSMP** Gambia Social Marketing Management Program

Hb HaemoglobinH/F Health Facility

HDI Human Development Index
HEU Health Education Unit
HPI Health for Peace Initiative
HIS Health Information System
HIV Human Immuno-deficiency Virus
HMIS Health Management Information System

HR Human Resources

**HTI** Health Training Institutions

**HW** Health Workers

IEC Information, Education and Communication
 IMCI Integrated Management of Childhood Illnesses
 IPTp Intermittent Presumptive Therapy in pregnancy

IT Information Technology ITN Insecticide Treated Net

**KAP** Knowledge Attitude and Practice **KPC** Knowledge Practice and Coverage

LBW Low Birth Weight
LRD Lower River Division
MD Maternal Deaths

M&E Monitoring and Evaluation MCH Maternal and Child Health

MDFTs Multi-Disciplinary Facilitation Teams
MICS Multiple Indicator Cluster Survey
MIS Management Information System
MOU Memorandum of Understanding
MRC Medical Research Council

MW Midwife

NGO Non Governmental Organization

**NBD** North Bank Division

NHLS National Health Laboratory Services

NHS National Health Service

**NM&ETF** National Monitoring and Evaluation Taskforce

NMCP National Malaria Control Program

NPCS National Population Commission Secretariat

NSGA Nova Scotia Gambia Association NSS National Sentinel Surveillance

NYAAMA Niamina East Youth Association Against Malaria and AIDS

NYC National Youth Council

PC Poly Clinic

PER Public Expenditure Review PHC Primary Health Care

PIA President's International Award
PIU Project Implementation Unit
PLWHA People Living With HIV/AIDS
PNO Principal Nursing Officer

POS Point of Sales
PR Principal Recipient

PRSP Poverty Reduction Strategic Paper PTA Parent Teachers' Association

RBM Roll Back Malaria
RH Reproductive Health
RHC Reproductive Health Clinic
RVTH Royal Victoria Teaching Hospital

SCBStandard Chartered BankSDAService Delivery AreaSENState Enrolled Nurse

**SP** Sulphadoxine-Pyrimethamine

**SPA II** Second Strategy for Poverty Alleviation

**SP-IPT** Sulphadoxine-Pyrimethamine - Intermittent Presumptive Treatment

SRNState Registered NurseSWAPSector Wide ApproachSYSSSanta Yalla Support Society

**TA** Technical Assistant

**TAYAM** The Association of Youths Against Malaria

TBA Traditional Birth Attendant TOT Training Of Trainers

**UNICEF** United Nations Children's Fund

URD Upper River Division
 US Uniformed Services
 USA United States of America
 UTG University of The Gambia
 VDC Village Development Committee

VHW Village Health Worker

WB World Bank
WD Western Division

WHO World Health Organization

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# **Executive summary**

The Harmonization Working Group of RBM is providing technical assistance for Malaria Needs Assessments:

- 45 Countries;
- 16 priority countries who are preparing for GFATM Round 8 proposals.

Comprehensive needs assessments will determine what are the programmatic, financial and operational gaps, constraints and opportunities to reach the ambitious targets of national malaria strategic plans and global 2010 RBM targets over the 2008 – 2010 period and beyond. The information collected will also be available to feed into the Global Fund Round 8 proposals, discussions with the World Bank, US President's Malaria Initiative, as well as new and emerging donors

The Needs assessment Team was composed by a group of national technical actors from National Malaria control program (NMCP), Department of State for Health and Social Welfare (DOSH), Regional Health Team (RHT) and from partner NGO's implementing malaria control activities in the Gambia (see list of team member in annexes). The Exercise has been facilitated by Dr Karim Seck Consultant for RBM and conducted from December 15th to 39th in the field in the Gambia and all the process ended in January 2009

## Methodology

The methodology consisted of:

- A documentation review (see list);
- Briefing with NMCP team identification o required documentation and people/organizations to visit;
- A introductory workshop to adapt the questionnaire and get Need assessment team familiar to it;
- Set of five groups to visit national stakeholders and partners at national and regional level (see list);
- Analyze and summarization of information collected and field report drafting by team groups.

The data collection has been conducted during December 15<sup>th</sup> to 30<sup>th</sup> 2008.

## Main recommendations to attain 2010 targets

#### ITN

- 1 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 color preferred by the communities
- 2 The procurement process should be improved in order to ensure regular and timely distribution of nets to implementing partners
- 3 Data on awareness should be captured more frequently particularly trough KPB studies
- 4 Storage facilities at regional level need upgrading and rehabilitation
- 5 New LLINs distribution points should be open in all regions in order to increase availability coverage for all population at risk

#### **IRS**

- 1 Mobilize more resources for full implementation for IRS program
- 2 Provision of appropriate storage facilities for the insecticide and equipment
- 3 Procure more spraying equipment and insecticide
- 4 Involvement of communities at all levels of planning and implementation
- 5 Increase awareness on the IRS strategies
- 6 Build capacities for IRS implementation at all levels
- 7 Strengthen quality control activities for IRS

#### **Larval control**

- 1 Larviciding should be scale-up to other regions to cover wider areas
- 2 Strengthen community sensitization on larviciding
- 3 Increase resource mobilization for larviciding
- 4 Build factory to produce larvicides in the Gambia
- 5 Build capacity at regional level on larviciding

# Malaria in Pregnancy (IPT)

- 1 Data on awareness of IEC/BCC activities on IPTp should be collected
- 2 KAP studies should be conducted on IPTp in these regions
- 3 Conduct operational research to establish barriers to IPTp 2 up-take and use research findings to address the issues

# Case management

- 1 Expand laboratory services
- 2 Increase availability of RDTs to increase access to diagnosis
- 3 Increase access to laboratory
- 4 24 hrs availability of electricity supply
- 5 Provide regular maintenance of microscopes
- 6 Build capacity on malaria microscopy and malaria diagnosis
- 7 Extend quality control services to private sector labs

#### **Treatment**

- 1 Provide additional incentives to VHWs
- Adequate resources(antimalarial drugs and human) should be provided to support malaria case management at facility level
- Intensify IEC/BCC at community level to promote early treatment
- 4 Data on health care providers prescribing practices should be provided
- 5 All private sector /NGO should be encourage to adhere to the national malaria treatment guideline
- 6 Measures should be put in place to train VHWs on malaria using RDTs
- 7 Accelerated intake in training institutions
- 8 Study should be conducted to determine the proportion of health workers adhering to the national treatment guidelines in the management of malaria
- 9 Mechanism should be put in place to keep track of antimalarial drugs in private sector/ NGO

# Advocacy/BCC/IEC

- 1 Develop a social mobilization strategy for malaria prevention and control
- 2 Strengthen coordination between NMCP and partners
- 3 Establish a mechanism for development and approval of IEC materials
- 4 Provision of private sector network capacity building
- 5 Establish a private sector network capacity building strategy for advocacy
- 6 Establish a malaria newsletter
- 7 Produce and distribute adequate IEC materials at community level
- 8 Establish mechanism to raise funds for IEC activities and materials development
- 9 Diversify source of funding for IEC/BCC activities.

# **Surveillance, Monitoring and Evaluation & Operational research**

- There should be adequate equipment, computers and internet access at all levels for data processing
- 2 Share malaria data with community groups and health facilities
- 3 sensitize or orientate health facility staff and community groups on indicators to monitor impact of malaria interventions
- 4 Strengthen capacity on data processing, analysis and report writing
- 5 Develop a national malaria M & E plan
- 6 Strengthen data quality assurance
- 7 Strengthen surveillance system for malaria and prevention control

# **Program Management**

- 1 Strengthen malaria coordination at all levels
- 2 Build capacity of staff
- 3 Implement strategies to increase staff retention
- 4 Provide incentives for health workers at facility level
- 5 Train parasitologists and Epidemiologist at NMCP level
- 6 Provide spraying equipment and storage facilities at regional level
- 7 Establish an Entomological lab and Insectariums

# **Supply management**

- 1 Train staff on store management
- 2 Provide adequate storage facility at regional and facility levels
- 3 Provide adequate transport and fuel for distribution of drugs and other supplies
- 4 Develop and train data personnel for tracking of commodities such as nets, insecticides and equipment at facility and regional level
- 5 Provide funding for the procurement of malaria commodities from government
- 6 Improve the inventory control system at regional and facility level
- 7 Hire skilled staff for store management

# **Health Systems Strengthening**

- 1 Expand laboratory services to increase access
- 2 Increase human resources in the health system
- 3 Strengthen feedback from central level to the periphery
- 4 Build capacity of health staff for data analysis
- 5 Sensitize health workers on staffing norms
- 6 Strengthen HMIS at all levels
- 7 Comply with standards and norms for constructing set by government in future

#### 1. Introduction

The Harmonization Working Group of RBM is providing technical assistance for Malaria Needs Assessments:

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# 2. Methodology

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- Analyze and summarization of information collected and field report drafting by team groups.

# 3. Demographic, socio-economic and epidemiological profile

The Republic of The Gambia is located on the West Africa coast and extends about 400 km inland, with a population density of 128 persons per square kilometers. The width of the country varies from 24 to 28 kilometers and has a land area of 10,689 square kilometers. It is bordered on the North, South and East by the Republic of Senegal and on the West by the Atlantic Ocean. The country has a tropical climate characterized by 2 seasons, rainy season June-October and dry season November-May.

Table 1 – Socio-economic and health indicators

Indicator	Rate/Ratio	Source (and year)
Crude Birth Rate	43.2/1,000	Census, 2003
Crude Death Rate	9/1,000	Census, 2003
Growth Rate	2,77%	Census, 2003
Infant Mortality	93/1,000	MICS 2005/6
Under Five Mortality	131/1,000	MICS 2005/6
Maternal Mortality Ratio	730/100,000	2001 Maternal mortality Survey
Women receiving Antenatal Care	97,80%	MICS 2005/6
Deliveries by professionals	56,8	MICS 2005/6
Total Fertility Rate	5,4	Census, 2003
		HIV national Prevalence Study
HIV prevalence in 14-49yr cohort	2,8	2006
Life expectancy	51	Census, 2003
Literacy	52,1	Census, 2003
Population below poverty line	59	Census, 2003

Table 2 – Demography

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	
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		56 252	57 810	59 411		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

In The Gambia, malaria is holo to mesoendemic with highly seasonal variation. Transmission during the rainy season (June – October) is intense with 80% of severe cases occurring in October and November.

Malaria is the leading cause of morbidity and mortality, especially among pregnant women and children under 5 years accounting for 78% of all out-patients visits, 58% of all in-patient admissions (DOSH 2004), 40% of under-five visits to Maternal and Child Health services and 20% of antenatal consultations. In rural areas, children experience 1–3 clinical attacks of malaria a year. Parasite rates in children aged 1–4 years range from 25%-80% (Von Seidlein, 2001). Children under the age of 7 years experience about 1 episode of malaria every year. Recent studies suggest an increase in complications such as severe anemia associated with rising chloroquine resistance (Bojang, 2005).

In pregnant women, severe malaria-related anemia continues to be a major contributing cause to maternal morbidity and mortality. It is estimated that malaria may account for up to 93 maternal deaths per 100,000 live births (Anya, 2004).

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. This is mainly due to the presence of ecological factors such as rice irrigation, flood plains and swamps which are favorable for mosquito breeding.

*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

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		

## 4. Progress, estimated gaps and requirements

#### 4.1. Progress towards 2010 targets

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.

#### **□** Coverage for ITN

For ITN the national objective is to increase the utilization of ITNs by 80% of the target population by December 2015. This objective matches with RBM targets. In term of achievement, the MIS 2007/2008, in the Western Region, reveals that 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.. Among pregnant women, the percentage sleeping under a mosquito net was 86.8%. the nationwide MISCIII survey indicates that 63 % of mothers or caretakers reported that the child slept under a bednet the night prior to the survey and of this, 49.0% were reported to have slept under an ITN. These figures suggest that despite evidence of progress, there are still important gap to reduce in order to reach RBM targets. 36.7% of children under five are still reported not having slept under a bednets.

#### ☐ Coverage for 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 is still room for improvement.

From the MICSIII, of the 3,070 women interviewed, 59.1 % took medicine to prevent malaria during pregnancy among which 21.1% took SP/Fansidar only once, 32.5 % took SP/Fansidar two or more times. In the western region, the MIS 2006 shows that 85.2% of mothers reported taking an antimalarial drug for prevention during their last pregnancy and about 98.5% of them 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

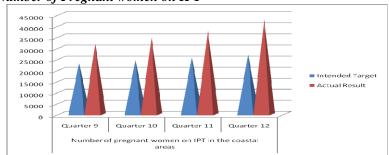


Figure 1: Number of Pregnant women on IPT

#### ☐ Progress concerning case management

The national malaria case management 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.

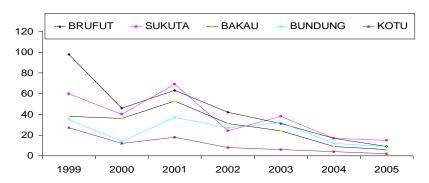
Data from the costal region (MISIII) show that 22.1% of children had a fever in the two weeks preceding the survey. Of these, 65.5% took antimalarial drug, 13.1% took the drug within 24 hours of the onset of the symptoms. About 38.7% sought treatment from a health facility/provider within 24 hours of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

#### ☐ Impact on malaria morbidity in the Gambia

There is more and more evidence of malaria decrease in morbidity

Figure 2: Showing decline in malaria admissions in major health facilities in the

Costal Region



A comparative study by Ceesay et al (2008) in three health facilities in the Coastal Region shows a 74% decline in the proportion of admissions attributed to malaria from 435/2530 in 2003 to 69/1531 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.

Table 4 – RBM Core (and Country-specific) Indicators and Targets<sup>1</sup>

Indicators	Baseline Year (indicate)	NMCP Target 2008	NMCP Target 2009	NMCP Target 2010	NMCP Target 2011	NMCP Target 2012	NMCP Target 2013	RBM Target 2010	NMCP Achieved 2006/2007
Crude death rate (under five)	165/1000 2005/2006 MICS						83/1000		
Mortality attributed to malaria (all ages)								50% reduction from 2000	
Mortality attributed to malaria (under five)	3.6%(2002) Situational Analyses Report 2002							50% reduction from 2000	
Morbidity attributed to malaria (under five)	39% Situational Analyses Report 2002							50% reduction from 2000	24%(2007 HMIS)
Morbidity attributed to malaria (5 and above)	NA							50% reduction from 2000	
Malaria morbidity among pregnant Women	5.1% 2002 Situational Analyses Report 2002								8% 2007 HMIS
Malaria related mortality among Pregnant women	2.3% 2002 Situational Analyses Report 2002								0.9%2007 HMIS
Case fatality rate (under five)	124/1000 2002 Situational Analyses Report 2002							50% reduction from 2000	
Case fatality rate (five and above)	20/1000 2002 Situational Analyses Report 2002							50% reduction from 2000	
% of under fives with fever getting appropriate treatment within 24 hours of onset	33% 2002 Situational Analyses Report 2002							80%	75.7% 2007 MIS
% of fever/uncomplicated malaria under five cases correctly managed at health facilities	33% 2002 Situational Analyses Report 2002								46.7% 2007 MIS

<sup>1</sup> Original RBM 2010 targets: <a href="http://rbm.who.int/docs/abuja\_declaration.pdf">http://rbm.who.int/docs/abuja\_declaration.pdf</a>
Updated RBM 2010 targets: <a href="http://rbm.who.int/gb/ebwha/pdf">http://rbm.who.int/gb/ebwha/pdf</a> files/WHA58-REC1/english/Resolutions.pdf</a> and <a href="http://rbm.who.int/forumV/docs/gsp\_en.pdf">http://rbm.who.int/forumV/docs/gsp\_en.pdf</a>

#### 4.2. Current financing

The Government of the Gambia is the main providers for health financing in the country. This is done through the annual recurrent and development budgets. 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. . Along with GOG, donor, NGO, and private out-of-pocket also significantly contribute to health expenditures In addition, the GOG 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 multiple source of funding, health is seriously under-funded. This 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. The DOSFEA allocate annual budgets to DOSH for the salaries of staff employed at NMCP and RHTs Offices, health workers and most other service providers employed at health facilities. The government also budget and allocate resources for infrastructure, maintenance and repair, operations and other recurrent costs. Financial figures for 2009 to 2015 provided in Line B in financial gap analysis table reflect the direct contribution of the Government to Malaria control and prevention.

The Gambia received grant from the Global fund for Malaria in the Round 3 and 6 grants which are respectively scheduled to end by September 2009 and June 2011. UN agencies as UNICEF, WHO also provides multilateral support to the national malaria control and prevention in diverse areas including technical assistance, malaria related service such as ITN, MCM, IPTp, and IRS. External support provided by some institutions directly to nongovernmental organizations and other institutions is also reflected in the total external responses available for malaria control and prevention.

Table 5 – Main Donors and Areas of Support

		Areas of Support							
Organization	ITNs	IRS	Larval Control	IPT	Diagnosis	Treatment	IEC/BCC	M&E	Program Mangmt
Department of State for health									
GFATM									
WHO									
UNICEF									
CRS									
IRISH AID									

Table 6 – Current financing by year (2008-2013) (USD)

Organization	2008	2009	2010	2011	2012	2013	2014	2015	Source
									Government
									Recurrent Development
DOSH (GOV)	480 000	530 711	543 979	557 579	571 518	585 806	600 451	615 462	Expenditure 2009
GFATM									
Round 3	1 946 010	2 386 009	-	-	-	-	-	-	GFATM R03 proposal
GFATM									
Round 6	3 737 464	3 345 732	3 736 860	3 442 008	1 808 042	-	-	-	GFATM R6 proposal
WHO biannual									
2008-2009	300 000	380 500	310 500	320 500	300 500	380 500	320 500	350 500	WHO biannual 2008-2009
									Unicef annual
UNICEF	100 000	65 000	65 000	65 000	65 000	65 000	65 000	65 000	Work Plan 2008 & 2009
CRS									CRS Private
Private funds	100 000	113 471	100 000	100 000	100 000	100 000	100 000	100 000	Fund 2008 2009
									Malaria
IRISH AID	134 837	75 148	101 680						Irish Aid Proposal
Total Funds Available									
(\$)	6 798 311	6 896 571	4 858 019	4 485 086	2 845 060	1 131 306	1 085 951	1 130 962	

#### 4.3. Estimated gaps and requirements to attain 2010 targets

Tables 7 - 11 are summary tables of all requirements, both financial and commodity related (Tables 8 - 11) and otherwise (Table 7).

#### **Summary of Technical Assistance Needs**

#### **MIP**

- 1 To develop a comprehensive national MIP implementation and joint (NMCP, RH and the Regional Health Teams) supervision, monitoring and evaluation plans;
- 2 To set up a database on trainings conducted and design a mechanism to systematically monitor the effectiveness of the trainings as an intervention to improve performance;
- To put in place a Mechanisms to ensure community ownership of interventions (MIP) being implemented (community mobilization and action plans, community self monitoring and evaluation system to demonstrate ownership);
- 4 KAP study on IPTp
- 5 To conduct operational research to establish barriers to IPT2 and use research findings to address issues
- 6 To develop MIP research agenda;
- 7 To develop pregnancy exposure register;

#### **Diagnosis**

- 1 Set up reference laboratory for diagnosis of malaria
- 2 Build capacity on malaria laboratory diagnosis

#### **Treatment**

- 1 Setting up of drug quality control system
- 2 Training on drug quality control and post marketing surveillance
- 3 Training of trainers on pharmaco-vigilance
- 4 Training on pharmaceutical management for malaria (procurement and supply management- e.g. drug quantification using quantimed)
- 5 Training of trainers on management of malaria (case management)
- 6 Set up a computerized drug inventory control system at the regional levels
- 7 Malaria-matrix study to determine the prevalence and incidence of malaria (uncomplicated and severe malaria)
- 8 Training on use rational use of antimalarial drugs
- 9 Study on prescription pattern and practices and rational use of antimalarial drugs

#### Advocacy

- 1 Technical Assistance would be needed in the area of strengthening the RBM partnership at country level. Partnership exist but on adhoc basis. Partners only meet to resolve issues as they arise. Regular partnership meetings are only conducted on quarterly basis with Global Fund implementation only.
- 2 Existence of a strong partnership can help the program increase advocacy and resource mobilization for malaria. A communication well defined across the whole program needs to be developed to support the implementation of the whole national strategy.
- 3 Partner capacity building programs also need to be addressed but this can only happen if the partnership is well established and clearly defined.

4 TA is therefore needed to strengthen the Roll Back Malaria Partnership at country level to achieve best results in partnership.

#### **Program management**

- 1 There is need to improve coordination between partners and this can only happen if a strong and functional partnership exists.
- 2 TA would therefore be needed to strength coordination and partnership at all levels

Table 7 – Summary of targets, strategies, progress and additional activities needed by core intervention area

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
ITNs	80%	Ensure availability of ITN for every sleeping place in The Gambia.  2. Increase the availability of ITNs by diversifying suppliers and service points.  3. Promote effective use of ITNs among the entire population	Net ownership 59,4% Treated net ownership 49.5% 73% of children under five sleeping under ITN	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	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 color preferred by the communities  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  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
IRS	To Spray habitable houses in target areas with DDT by December 2015  • To spray identified	Procure adequate Insecticides and protective clothings to implement IRS     Identify andTrain community spray operators on IRS application techniques	IRS has been implemented as a pilot intervention in the Foni Western Region  29,839 household have been	Inadequate storage facilities for the Insecticides and equipment at regional level Inadequate spraying	Mobilize more resources for full implementation for IRS program Provision of appropriate storage facilities for the insecticide and equipment Procure more spraying equipment

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
	mosquitoes breeding sites with larvicides by December 2015	Conduct regular country wide Indoor residual Spraying     Conduct regular monitoring and evaluate control activities     Evaluate the residual efficacy used for IRS     Train spray operators and supermeasures     Sensitize community memimportance of IRS in malaria control.		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	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
Malaria in Pregnancy	To increase ITN usage from 65% to 90% by 2015 To increase IPT 2 uptake from 33% to 80% by 2015	Increase access to ITNs for all pregnant women.  Promote the use of ITNs among pregnant women and partners.  Provide regular supply of antimalaria drugs and other supplies at all levels.	All Health Facilty targerted provide MIP services  IPT uptake is high  No stock out of SP 85.2% of mothers reported taking an antimalarial drug for prevention during their last pregnancy 45.2% of mothers who received IPT during an ANC visit took 2 or more doses of the medication	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	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 uptake and use research findings to address the issues

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
				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	
Diagnosis	At least 80% of suspected malaria cases are correctly diagnosed by 2010 and maintained through 2015	Provision of appropriate diagnostic capacity at various levels  Improve laboratory confirmation of cases	health facilities with functional microscopy services have increased from 16 to 23 in 2008 In early 2008, Rapid Diagnostic Tests (RDTs) for P.falciparum have been introduced  expansion of laboratory services has been restricted due to inadequate resources quality control is yet to start for the private sector Inadequate trained staff, laboratory equipment, reagents and consumables	Limited access to diagnostic services in some regions Lack of 24 hrs laboratory access 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 National quality	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 Extend quality control services to private sector labs

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
				control system do not cover the private sector	
Treatment	To increase to 80% the proportion of malaria cases receiving appropriate management within 24 hours of the appearance of symptoms by 2011.	Prompt, effective anti-malarial treatment  Home-Based Management of Malaria:-	The adopted change in the antimalarial drug by the government led to the procurement of effective drugs and other medical supplies 65.5% of children had a fever took antimalarial drug, 13.1% took the drug within 24 hours of the onset of the symptoms. About 38.7% sought treatment from a health facility/provider within 24 hours of the onset of the symptoms	Develop a social mobilization strategy for malaria prevention and control Strengthen coordination between NMCP and partners Establish a mechanism for development and approval of IEC materials Provision of private sector network capacity building	Provide additional incentives to VHWs Adequate resources(antimalarial drugs and human) should be provided to support malaria case management at facility level Intensify IEC/BCC at community level to promote early treatment Data on health care providers prescribing practices should be provided All private sector /NGO should be encourage to adhere to the national malaria treatment guideline Measures should be put in place to train VHWs on malaria using

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
			High popliticla Leadership Involvement of parlamemtarians	Establish a private sector network capacity building strategy for advocacy Establish a malaria newsletter Produce and distribute adequate IEC materials at community level Establish mechanism to raise funds for IEC activities and materials development Diversify source of funding for IEC/BCC activities.  No established mechanism for IEC materials development and approval	Accelerated intake in training institutions Study should be conducted to determine the proportion of health workers adhering to the national treatment guidelines in the management of malaria Mechanism should be put in place

Core interventions	Key targets	Strategies and approaches to achieve targets	Progress	bottlenecks	Additional activities needed
Advocacy, Social Mobilization and Behavioral Change Communication	Advocacy: To secure the full commitment and support of policy and decision makers and other relevant stakeholders to facilitate resource mobilisation for malaria control.  IEC: To encourage and promote positive health practices with regards to malaria control in the communities	Create an enabling environment for community participation and involvement in malaria prevention and control  Solicit support from existing and potential partners  Advocate for increased government budgetary allociation.  Strengthen media participation and involvement.  Strengthening BCC activities at community level.  Promote the use of appropriate channels of communication.  Strengthening the capacity of NMCP and partners to implement BCC activities	Financial resources available for activities  Private sector involve in resources and social mobilization  High level of coverage of IEC BCC activities at community level  Use of all media channels	Weak coordination mechanism between NMCP and some partners on advocacy No private sector network capacity building strategy inplace on advocacy No malaria news letter Inadequate IEC materials at community level Inactive structures for resource mobilizations Inadequate funds for community sensitization activities Inadequate advocacy activities for malaria at levels	Develop a social mobilization strategy for malaria prevention and control Strengthen coordination between NMCP and partners Establish a mechanism for development and approval of IEC materials Provision of private sector network capacity building Establish a private sector network capacity building strategy for advocacy Establish a malaria newsletter Produce and distribute adequate IEC materials at community level Establish mechanism to raise funds for IEC activities and materials development Diversify source of funding for IEC/BCC activities.

Table 8a – 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	346,708	560,284	1,130,526	907,252	984,523	1,095,004	1,128,209	1,162,418	7,314,924
Treatment	(82,540)	340,110	2,212,184	1,231,966	1,314,527	1,580,530	1,165,923	854,481	8,617,181
IEC	4,411,868	4,320,317	4,669,863	4,539,713	4,656,954	4,982,834	4,873,514	4,982,834	37,437,896
Advocacy	336,630	311,630	326,630	326,630	326,630	336,630	336,630	336,630	2,638,040
M&E	121,588	210,530	236,870	453,700	397,393	615,885	542,985	646,635	3,225,586
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 and transport	70,958	212,235	368,723	396,931	420,769	183,012	194,049	355,175	2,201,852
Human resources	171,056	250,771	523,753	603,559	879,947	1,049,034	1,073,433	1,133,222	5,684,776
Training	(131,812)	91,032	280,568	305,154	394,068	596,174	428,068	596,174	2,559,426
Lab equipements	(9,410)	106,453	144,079	67,242	35,612	167,751	201,469	173,948	887,144
TA	-	-	-	-	-	-	-	-	-
TOTAL	7,820,029	11,467,123	15,004,305	16,040,062	16,290,298	19,367,843	18,811,325	20,476,809	125,277,795

<sup>\*</sup> This table is compiled as a summary of the financial gaps to reach 2010 targets as detailed in Tables 10a-e & Table 11

Table 8b – Summary of overall funding gaps: by cost type (USD)

Cost type	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Commodities									-
Delivery costs									-
Infrastructure									-
Operational costs									-
Training	(131,812)	91,032	280,568	305,154	394,068	596,174	428,068	596,174	2,559,426
IEC									-
Monitoring & Evaluation									-
Human ressource									
Management									-
TOTAL	(131,812)	91,032	280,568	305,154	394,068	596,174	428,068	596,174	2,559,426

Table 9 – Summary of major commodity requirements

Commodity		2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
	Target coverage (RBM									
	or national if higher)	320,227	187,948	52,500	59,500	61,000	60,000	60,000	60,000	861,175
	GFATM RCC <5			50,000	50,500	51,000	50,000	50,000	50,000	301,500
	GFTAM RCC PW			2,500	9,000	10,000	10,000	10,000	10,000	51,500
LLINs	No. required (RBM / national targets)	103,000	988,000	109,000	1,043,000	114,000	118,000	121,540	125,186	2,721,726
	GAP – no. of LLINs	- 217,227	800,052	56,500	983,500	53,000	58,000	61,540	65,186	1,860,551
	Target coverage (RBM or national if higher)									-
	No. required (RBM / national targets)	290,286	298,273	306,480	314,915	323,583	332,492	342,467	352,741	2,561,237
Insecticide for IRS	GAP – No. of <i>units</i> insecticide	290,286	298,273	306,480	314,915	323,583	332,492	342,467	352,741	2,561,237
	Target coverage (RBM or national if higher)	36,993	512,627	904,129	750,210	745,062	762,124	762,124	,	4,473,269
	No. required (RBM / national targets)	74,001	774,320	1,357,856	1,136,226	,	1,165,819	1,200,794	1,236,818	8,080,231

	GAP – No. of RDTs  Target coverage (RBM	37,008	261,693	453,727	386,016	389,335	403,695	438,670	1,236,818	3,606,962
	or national if higher)									-
	No. doses required (RBM / national targets)	1,689,702	1,184,661	512,392	202,533	166,514	171,127	176,261	181,549	4,284,738
1 <sup>st</sup> line malaria drug	GAP – number of 1st line doses	1,689,702	1,184,661	512,392	202,533	166,514	171,127	176,261	181,549	4,284,738
	GFATM3	113,498	5,800							119,298
	GFATM6	80,832	27,428							108,260
	RCC			51,194	52,392	53,592	54,820	56,076	57,360	325,434
	Target coverage (RBM or national if higher)	194,330	33,228	51,194	52,392	53,592	54,820	56,076	57,360	552,992
SP for IPT	No. of doses required No. of doses required	90,694	93,206	95,788	98,441	101,168	103,970	107,089	110,302	800,656
	GAP – No. of SP doses	- 103,636	59,978	44,594	46,049	47,576	49,150	51,013	52,942	247,664

Table 10a – Funding Requirements Linked to Targets – Commodity and delivery costs, ITNs (USD)

ITNs	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Financial need for 100% coverage	2,298,666	2,147,532	2,381,138	2,680,903	3,011,056	3,297,016	3,817,662	4,131,112	23,765,085
RBM Target (or national target if higher)*	80%	80%	80%	80%	80%	80%	85%	85%	
Financial needs to reach RBM (or national) target	1,838,933	1,718,026	1,904,911	2,144,722	2,408,845	2,637,613	3,245,013	3,511,445	19,409,506
DOSH	12,500	15,000	25,000	25,000	25,000	25,000	25,000	25,000	177,500
GFATM Round 3	543,303	343,887	-	-	-	-	-	-	887,190
GFATM Round 6	1,211,090	1,250,746	1,245,804	430,578	430,578	-		-	4,568,796
UNICEF	14,000	20,000	20,000	20,000	20,000	-	20,000	20,000	134,000
WHO	35,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	350,000
Resources available	1,815,893	1,674,633	1,335,804	520,578	520,578	70,000	90,000	90,000	6,117,486
GAP TO REACH RBM TARGET	,= =,=00	, = , = 20	, , - , -	,	,	-,	/	,	-, , , , ,
(or national if higher)	23,040	43,393	569,107	1,624,144	1,888,267	2,567,613	3,155,013	3,421,445	13,292,020

<sup>\*</sup> Note only commodity and delivery costs are included in the above figures. All cross cutting costs are included in Table 9.

Table 10b – Funding Requirements Linked to Targets – Commodity and delivery costs, IRS (USD)

IRS	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Financial need for national plans at									
RBM targeted coverage level of 80%	1,303,823	1,303,823	1,937,671	3,013,953	2,271,903	1,988,828	2,898,300	4,020,848	18,739,147
Resources available	131,098	131,098	131,098	131,098	131,098	131,098	131,098	131,098	1,048,785
GAP to fulfil national plans	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

<sup>\*</sup> Note only commodity and delivery costs are included in the above figures. All cross cutting costs are included in Table 9.

<sup>\*\*</sup> For IRS it is not applicable to differentiate between 100% and RBM targets. Costs are based on country scale up plans. RBM targets are related to coverage within targeted communities. Country budgets will be generated based on costs for completing IRS in specified areas of the country. The budgets will always be costed for spraying 100% of households / structures in those areas. The target of 80% coverage does not have any implication on budgeting or resources required and therefore is not included as part of this table.

Table 10c - Funding Requirements Linked to Targets - Commodity costs, IPT (USD)

IPT	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Financial need for 100% coverage	48,324	55,901	61,566	71,299	78,615	80,422	86,289	83,435	565,851
RBM Target	80%	80%	80%	80%	80%	80%	80%	80%	
(or national target if higher)*									
Financial needs to reach RBM (or									
national) target	38,660	44,721	49,253	57,039	62,892	64,337	69,031	66,748	452,681
Resources available	32,000	41,000	34,000	37,000	23,000	5,000	5,000	5,000	182,000
GAP TO REACH RBM TARGET									
(or national if higher)	6,660	3,721	15,253	20,039	39,892	59,337	64,031	61,748	270,681

Table 10d – Funding Requirements Linked to Targets – Commodity costs, Diagnosis (USD)

DIAGNOSIS	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Financial need for 100% coverage	1,020,982	1,390,890	1,697,319	1,420,283	1,417,996	1,457,274	1,500,993	1,546,022	11,451,759
RBM Target (or national target if higher)*	80%	80%	80%	80%	80%	80%	80%	80%	
Financial needs to reach RBM (or national) target	816,786	1,112,712	1,357,856	1,136,226	1,134,397	1,165,819	1,200,794	1,236,818	9,161,407
DOSH	62,590	64,155	65,759	67,403	69,088	70,815	72,585	74,400	546,795
GFATM Round 3	326,702	326,702							653,404
GFATM Round 6	80,786	161,571	161,571	161,571	80,786				646,284
Resources available	470,078	552,428	227,330	228,974	149,874	70,815	72,585	74,400	1,846,483
FUNDING GAP TO REACH RBM TARGET									
(or national if higher)	346,708	560,284	1,130,526	907,252	984,523	1,095,004	1,128,209	1,162,418	10,100,288

**Table 10e** – Funding Requirements Linked to Targets – Commodity costs, Treatment (USD)

TREATMENT	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Financial need for 100% coverage	1,773,861	3,326,852	4,892,873	3,669,655	2,752,241	2,064,181	1,548,136	1,161,102	21,188,900
RBM Target (or national target if higher)*	80%	80%	80%	80%	80%	80%	80%	80%	
Financial needs to reach RBM (or national) target	1,419,089	2,661,482	3,914,298	2,935,724	2,201,793	1,651,345	1,238,508	928,881	16,951,120
DOSH	62,590	64,155	65,759	67,403	69,088	70,815	72,585	74,400	
GFATM Round 3	620,862	620,862							
GFATM Round 6	818,178	1,636,355	1,636,355	1,636,355	818,178				
Resources available	1,501,630	2,321,372	1,702,114	1,703,758	887,266	70,815	72,585	74,400	-
FUNDING GAP TO REACH RBM TARGET (or national if higher)	(82,540)	340,110	2,212,184	1,231,966	1,314,527	1,580,530	1,165,923	854,481	8,617,181

Table 11 – Funding Requirements - Crossing cutting areas (USD)

Intervention area	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
				IEC					
Financial need	4,883,410	4,992,730	4,883,410	4,992,730	4,883,410	4,992,730	4,883,410	4,992,730	39,504,560
DOSH									
GFATM 3	247,936	214,436							
GFATM 6	218,711	447,421	203,651	443,121	216,561				
WHO		5,000	5,000	5,000	5,000	5,000	5,000	5,000	
CRS	4,896	5,556	4,896	4,896	4,896	4,896	4,896	4,896	
Resources available	471,543	672,413	213,547	453,017	226,457	9,896	9,896	9,896	2,066,664
GAP	4,411,868	4,320,317	4,669,863	4,539,713	4,656,954	4,982,834	4,873,514	4,982,834	37,437,896
			AD	VOCACY					
Financial need	367,130	367,130	367,130	367,130	367,130	367,130	367,130	367,130	2,937,040
DOSH									-
GFATM 3	15,000	15,000							30,000
GFATM 6	10,000	10,000	10,000	10,000	10,000				50,000
WHO	2,500	20,500	20,500	20,500	20,500	20,500	20,500	20,500	146,000
UNICEF	3,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	73,000
Resources available	30,500	55,500	40,500	40,500	40,500	30,500	30,500	30,500	299,000
GAP	336,630	311,630	326,630	326,630	326,630	336,630	336,630	336,630	2,638,040

			M&E: + Ope	erational Res	search				
Financial need	612,160	833,060	612,160	792,310	616,910	766,310	643,410	797,060	5,673,380
DOSH									-
GFATM 3	142,965	171,020							313,985
GFATM 6	187,345	223,185	173,185	238,185	119,093				940,993
WHO	5,000	130,000	80,000	80,000	80,000	130,000	80,000	130,000	715,000
CRS	20,425	23,177	20,425	20,425	20,425	20,425	20,425	20,425	166,152
MGP									-
IRISH AID	134,837	75,148	101,680						311,665
Resources Available	490,572	622,530	375,290	338,610	219,518	150,425	100,425	150,425	2,447,795
GAP	121,588	210,530	236,870	453,700	397,393	615,885	542,985	646,635	3,225,586
			Program	Manageme	ent				
Financial need	1,631,720	4,055,530	2,771,720	2,722,420	2,711,720	4,086,380	2,740,870	2,722,420	23,442,780
DOSH									-
GFATM 3	159,272	159,272							318,544
GFATM 6	120,736	241,472	241,472	241,472	120,736				965,888
WHO	35,000	35,000	35,000	25,000	5,000	35,000	25,000	25,000	220,000
CRS	21,151	21,943	21,151	21,151	21,151	21,151	21,151	21,151	170,000
Resources Available	336,159	457,687	297,623	287,623	146,887	56,151	46,151	46,151	1,674,432
GAP	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

			5	Storage							
Financial need	87,000	246,080	246,080	246,080	246,080	246,080	186,080	186,080	1,689,560		
Resources Available	,	,	,	,	,	,	ŕ	,	-		
GAP	87,000	246,080	246,080	246,080	246,080	246,080	186,080	186,080	1,689,560		
			Deployme	nt/Transporta	tion						
Financial need	70,958	212,235	368,723	396,931	420,769	183,012	194,049	355,175	2,201,852		
Resources Available									-		
GAP	70,958	212,235	368,723	396,931	420,769	183,012	194,049	355,175	2,201,852		
Human Resources & Facilities											
Financial need	685,961	770,640	872,403	953,418	1,095,044	1,129,401	1,155,101	1,216,224	7,878,193		
DOSH	46,007	47,157	48,336	49,545	50,783	52,053	53,354	54,688	401,923		
GFATM 3	168,584	168,584							337,168		
GFATM 6	272,000	272,000	272,000	272,000	136,000				1,224,000		
CRS	28,314	32,128	28,314	28,314	28,314	28,314	28,314	28,314	230,326		
Resources Available	514,905	519,869	348,650	349,859	215,097	80,367	81,668	83,002	2,193,417		
GAP	171,056	250,771	523,753	603,559	879,947	1,049,034	1,073,433	1,133,222	5,684,776		
			1	raining -							
Financial need	331,197	615,713	464,237	632,343	464,237	632,343	464,237	632,343	4,236,650		
DOSH									-		
GFATM3	257,640	193,640							451,280		

·									
GFATM6	184,200	292,020	147,500	291,020	34,000				948,740
CRS	21,169	24,021	21,169	21,169	21,169	21,169	21,169	21,169	172,204
WHO	-	15,000	15,000	15,000	15,000	15,000	15,000	15,000	105,000
UNICEF			·			·			-
Resources Available	463,009	524,681	183,669	327,189	70,169	36,169	36,169	36,169	1,677,224
GAP	(131,812)	91,032	280,568	305,154	394,068	596,174	428,068	596,174	2,559,426
			Laborat	ory Equipme	nt				
Financial need	169,869	135,680	173,306	96,469	50,226	167,751	201,469	173,948	1,168,718
DOSH									
GFATM3									
GFATM6	179,279	29,227	29,227	29,227	14,614				
Resources Available	179,279	29,227	29,227	29,227	14,614	-	-	-	281,574
GAP	(9,410)	106,453	144,079	67,242	35,612	167,751	201,469	173,948	887,144
			Othe	er (e.g. TA)					
Financial need									-
Resources Available									-
GAP	-	-	-	-	-	-	-	-	-
%	72%	76%	86%	84%	91%	97%	97%	97%	88%
TOTAL NEED	8,839,404	12,228,799	10,759,169	11,199,831	10,855,525	12,571,137	10,835,755	11,443,110	88,732,732
TOTAL AVAILABLE	2,485,967	2,881,907	1,488,506	1,826,025	933,241	363,508	304,809	356,143	10,640,105
TOTAL GAP	6,353,438	9,346,892	9,270,663	9,373,806	9,922,285	12,207,629	10,530,946	11,086,967	78,092,627

# 5. Core interventions

## 5.1 Prevention

## 5.1.1 ITNs

# a) Situation analysis

# 1) Policies, strategies and approaches

#### **Policy document**

ITN intervention is part of the national malaria strategy and policy trough Integrated vector management (IVM). ITN intervention and strategy are described both in the new malaria policy and new draft Strategic Plan 2007-2015 document (MSP 07-015). A LLINs distribution guidelines document has been developed by CRS but not included in the policy. From interview with grassroots actors, it appears that those documents have been inadequately disseminated to implementing partners at community level.

## Target and coverage

The new draft MSP 07-015 targets a100% increase access to Long Lasting Nets (LLNs) to the general population and 80% increase in the utilization of ITNs by the target population by December 2015. These are in line with the new Malaria national Policy and RBM targets. Universal access for the population at risk is a key principle of which aims to ensure that the population at risk of malaria benefits from the most suitable combination of preventive and curative care. A particular emphasis on children and pregnant women who benefit free distribution of LLINs

Routine Reproductive Health clinics (RHC clinics) are the main route of distribution. No nationwide mass distribution campaign has been implemented in the Gambia but beside RHT distribution, other distribution channels exist. Geographic targeted mass distribution at community level has been organized to reduce gap coverage. Currently, ITN use by pregnant women and children under five has increased significantly and this strategic plan would address scale up for impact to cover the population at risk.

Table 1: The last MICS indicator

Malaria	Household availability of insecticide-treated nets (ITNs)	49.5	%
	Under-fives sleeping under insecticide-treated nets	53.7	%
	Under-fives sleeping under mosquito nets	63.0	%
	Antimalarial treatment (under-fives)	52.4	%
	Intermittent preventive malaria treatment	32.5	%
	(pregnant women)		

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# 2) Implementation status

The national policy and the MSP 2008 2015 present the net intervention approaches. Strategies consist basically on sensitization and training activities toward communities on dipping techniques, promotion of correct and consistent use of nets. The distribution approach is not described. In fact, LLINs are distributed free to children under five and pregnant through routine RHC clinics. Other distribution channels like mass distribution at community levels and during National Immunization Days (NIDs) are also used to reach the target population.

Retreatment is still important in the Gambia. Introduction of long lasting bed nets has been done alongside the locally made nets and previous ITN distribution targeting the vulnerable groups. National retreatment campaigns are organized once every year. In 2007 the net count in all six regions was 264,594 while 147,816 have been dipped. Quantification and timing of retreat needs are based on micro planning and community net counting. The actual policy based on LLIN will replace gradually the ITN. The GFATM round 3 is replacing ITN in the Western Region while it is planned to cover other regions with round 9. There is a good capacity for retreatment of conventional nets trough the existence of net retreatment centers.

## 3) Management and partners' roles

There is a strong collaboration and role allocation between partners at national and decentralized level. CRS, as a GFTAM PR, is responsible for net intervention and distribution nationwide. WHO ensure the procurement process in partnership with National Pharmaceutical Services.

At facility level, health staffs are fully involved in net distribution while village health workers ensure LLINs at community level

### Role of private sector

Private sector is encouraged to import LLIN as GOG has removed tax on this product as an incentive measures. Private pharmacies import branded ITN and make them available to their customer on a profit based with a low mark up. Nevertheless, private sector doesn't play a major role in the ITN provision in the country. In addition, there is no social marketing approach or program for LLNs distribution in the country.

## 4) Procurement and logistics

### Quantification

LLINs are forecasted based on the projected population of children under fives and pregnant women. Insecticides are forecasted based on national bed net counts in the country

Procurement faces many constraints leading to delay and inadequate supply of ITN. The six month fund advance doesn't allow large orders for one year coverage and the NMCP is not directly responsible for nets procurement. This function is performed by WHO. The long procurement process escapes to NMCP control. These factors lead to delay in procurement and distribution of LLINs. In addition, net delivery is not at once but fractioned (25%, 50%, 25%)

#### Storage

Sufficient storage capacities are available at central level notably the Central Medical Store (CMS). At regional level storage capacities appear inadequate. Storage facilities are small and multipurpose, different items being stored together with nets. Storage operations frequently use ad hoc non definitive solutions such as agricultural stores.

#### Distribution

Stock out is recognized as a frequent problem for routine distribution of ITN due to procurement constraints. This lead to Interrupted and irregular supply of LLINs to the community

The national distribution network appears to be sufficient to reach all areas of the country. Punctual Mass campaigns, house to house and community health distribution approaches are use as alternative to reach the targets

## 5) Communications BCC/IEC

The promotion of behavioral change towards the use of ITN among the general population is a key strategy and is implemented through sensitization of communities about the importance and benefits of ITN, training of community members, (youth groups, CBOs, Kabilos, opinion leaders, NGOs etc) in mosquito net dipping techniques and promotion of the correct and consistent use of ITNs. In the LLIN guidelines document, IEC activities are described and recommended prior to, during and after the distribution session. Different forms of communication such as drama, songs, one on one conversation and mass media are promoted.

IEC interventions related to ITN also address barriers issues. But it apopears that use of net is cultural in the Gambia and only few factors can impede universal use of net such as the shape (preferably conical), the small size that doesn't fit with large new fashion beds, the perception of hanging net is old fashion, claustrophobic and heat increase perception.

Despite relative high levels of ownership and usage, the MSP08-15 still emphases on the need IEC/BCC intervention to promote adequate usage of ITN (as indicated above). A large number of advocacy communication materials methodology and approach have been developed and used to support ITN or LLINs distribution. Those include posters, flyers, drama groups, media channels, individual communication. The distribution guidelines describe in detail different communication activities to perform prior, during and after net distribution.

There are no cultural barriers hampering promotion of net use. It is generally admitted that bed nets use have been traditional to protect individuals and household from mosquito bites during the rainy season when mosquito population is very high and as well as for privacy.

## 6) M&E

There are routine and periodic data sources on net intervention progress. The HMIS ensure data collection, complication and analyses from the facility level to the central level. The NMCP M&E unit ensures the timeliness, the reliability and quality of data collected trough quarterly supervision. At community level, village health workers collect data on routine net distribution.

Data on Net awareness are mainly captured by large surveys such as the Multiple Indicator Cluster Survey (MICS) and the Malaria Indicator Survey (MIS). At a smaller scale level, KPC studies are performed by implementing partners but no study report has been made available.

Two edition of NIS have been performed in the Western Region as well as three nationally representative MICS editions (in 1995, 2000 and 2005-2006).

Awareness on malaria is increasing. Results from the MIS indicate that about 61.4% of the households interviewed have at least one mosquito net and 56.1% of households have at least one insecticide treated net and about 50.2% had an ITN (LLN). Eighty per cent (80.4%) of children under-five years of age slept under a mosquito net the night before the survey. For the pregnant women, the percentage sleeping under a mosquito net is (86.8%) and ITNs is (63.1%).

# 7) Gaps and requirements

## Key bottlenecks and challenges

- 1 Inadequate and interrupted supply of nets
- 2 Data on awareness not captured
- 3 Inadequate storage facilities at all levels
- 4 Limited dissemination of malaria/ITN policy to partners
- 5 Demand for LLINs is more than supply
- 6 Inadequate staff in RCH for ITN distribution

## Proposed solutions to attain 2010 targets

- 1 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
- 2 The procurement process should be improved in order to ensure regular and timely distribution of nets to implementing partners
- 3 Data on awareness should be captured more frequently particularly trough KPB studies;
- 4 Storage facilities at regional level need upgrading and rehabilitation
- 5 New LLINs distribution points should be open in all regions in order to increase availability coverage for all population at risk

Table 12 – ITN funding and major commodity needs to attain RBM 2010 Targets (costs in USD)

Number and cost of LLINs to be delivered to achieve target	2008	2009	2010	2011	2012	2013	Total
Delivery Approach 1 Routine EPI ANC							
A. Average cost per LLIN delivered*	15.4	15.4	15.4	15.4	5.4	5.4	
B. Number of LLINs to be delivered				111,000	114,000	118,000	660000
to reach 100% coverage	103,000	105,000	109,000				
C. Number of LLINs to be delivered							528,000
to reach RBM targets (or national if higher)	82,400	84,000	87,200	88,800	91,200	94,400	
D. Available resources for LLIN distribution	1	1,585,580	1,547,330	1,585,580	1,547,330	1,585,580	7,851,400
E. Funding gap for RBM / National (A1 * C1) – D1	1,268,959	(291,980)	(204,450)	(218,060)	(1,054,850)	(1,075,820)	(1,576,201)
Delivery Approach 2 General Campaign							
A. Average cost per LLIN delivered*	15	15	15	15	5	5	
B. Number of LLINs to be delivered							1,815,000
to reach 100% coverage		883,000		932,000			
C. Number of LLINs to be delivered							1,815,000
to reach RBM targets (or national if higher)		883,000		932,000			

D. Available resources for LLIN distribution							
E. Funding gap for RBM / National (A1 * C1) – D1	-	13,598,200	-	14,352,800			27,951,000
TOTAL number of LLINs to be delivered to achieve							2,475,000
100% coverage (B1+B2+B3)	103,000	988,000	109,000	1,043,000	114,000	118,000	
TOTAL number of LLINs to be delivered to achieve							2,343,000
RBM targets (or national if higher) (C1+C2+C3)	82,400	967,000	87,200	1,020,800	91,200	94,400	2,343,000
TOTAL available resources for LLIN distribution							2,475,000
(D1+D2+D3)	1	1,585,580	1,547,330	1,585,580	1,547,330	1,585,580	
TOTAL FUNDING GAP							
to reach RBM targets (or national if higher) (E1 + E2 +							
E3)	1,268,959	13,306,220	(204,450)	14,134,740	(1,054,850)	(1,075,820)	26,374,799
COMMODITY GAP to reach RBM targets (or national							
if higher) – number of LLINs	82,400	864,040	(13,276)	917,840	(195,343)	(199,226)	

<sup>\*</sup>Total costs in this table include the cost of the LLIN and delivery only. Other cross cutting costs such as IEC are included in later cross cutting costing.

## 5.1.2 IRS

# a) Situation analysis

# 1) Policies, strategies and approaches

IRS is included as part of national policy for malaria control. It is included in the Integrated Vector Control section of the malaria policy and of the MSP08-15. Strategic Objective is to spray habitable houses in target areas with DDT by December 2015. Specific targets are to spray at least twice annually 80% of the total sprayable houses in all districts of the country. These targets match with the RBM recommendations. There is no IRS specific strategy document

## 2) Financing

IRS is essentially supported by the Gambian Government (GOG). There is a personal involvement of the Head of State who bought 350 sprayers on behalf of the Department of State for Health. There is no financial support from partners but a specific advocacy process is on going to attract more support for this intervention.

## 3) Implementation status

Introduction of IRS is new and started in 2008 with the financial support of GOG and technical assistance from WHO. IRS has been implemented as a pilot intervention in the Foni Western Region of the Gambia in 2008, one of the six health regions in selected districts. Of the 27,997 targeted structures in the Fonies, 29,839 have been sprayed in all the districts, thus given percentage coverage of over 100%.

# 4) Management and partners' roles

The MSP 08-15 plan to scale up this intervention nationwide but is facing the financial constraint as no partner is giving support. Advocacy activities are carried out by the NMCP to attract more support for IRS

IRS intervention is fully centrally coordinated due to lack of expertise at regional level. There is some community participation in IRS activities and IRS has been well accepted in implementation areas and no insecticide poisoning has been reported after the spraying of the IRS in the communities visited. In addition, on the total of 400 sprayer recruited for the spray cycle, 200 were from the National Youth Service Scheme, 100 from the Department of State for Health and 100 from the local community.

## 5) Procurement and logistics

All IRS materials and equipment have been procured through the GOG budget. They consisted on 350 sprayers, protective equipment and 80,000 kg of 75% DDT WP out of these, 30,000 kg was used during the recently concluded IRS.

Storage facilities were identified in all the 9 districts of Fonis, where all spraying equipment and supplies including insecticide were stored for safety and security. Each district had its own storage facility headed by a logistician with full security measures.

Despite the success of this pilot intervention, it appears that storage facilities and equipments are inadequate for routine and scaled up IRS activities.

## 6) M&E

Except a detailed report of the Foni 2008 intervention, there is no routine M&E system for IRS yet in place.

# b) Gaps and requirements

- i. Key bottlenecks and challenges
- 1 Inadequate storage facilities for the Insecticides and equipment at regional level
- 2 Inadequate spraying equipment for IRS
- 3 IRS yet to be implemented in other regions
- 4 Inadequate resources for the IRS strategy
- 5 Low capacity for IRS implementation at regional level
- 6 Inadequate awareness about the strategy of IRS within communities
- 7 Inadequate community involvement in the planning process

## ii. Proposed solutions to attain 2010 targets

- 1 Mobilize more resources for full implementation for IRS program
- 2 Provision of appropriate storage facilities for the insecticide and equipment
- 3 Procure more spraying equipment and insecticide
- 4 Involvement of communities at all levels of planning and implementation
- 5 Increase awareness on the IRS strategies
- 6 Build capacities for IRS implementation at all levels
- 7 Strengthen quality control activities for IRS

Table 13 – IRS funding and major commodity needs to support national scale up plans at RBM 2010 coverage targets (costs in USD)

Number and cost of households (HH) to be sprayed	2008	2009	2010	2011	2012	2013	Total
A. Average cost per HH sprayed*	10	10	10	10	10	10	
B. Total number of HH targeted to be sprayed	124,879	128,338	131,893	135,547	139,301	143,160	803,119
C. Available resources for IRS							-
FUNDING GAP							
(A * B) - C	1,248,792	1,283,383	1,318,933	1,355,468	1,393,014	1,431,601	803,119
Total amount of insecticide required 75% 2000mg/m2 650g/sachet	290,286	298,273	306,480	314,915	323,583	332,492	1,866,029
COMMODITY GAP - Kg DDT	188,686	193,877	199,212	204,695	210,329	216,120	1,212,919

## 5.1.3 Larval control

## a) Situation analysis

## 1) Policies, strategies and approaches

There is no specific vector control policy document but the intervention is included in the new Malaria policy document with the specific objectives to reduce mosquito breeding sites near habitations. Strategies rely on vector control strengthening through environmental management at all levels. Integrate targeted larviciding into vector management programs, Integrate housing screening into vector management program.

The NMCP also promote complementary strategies such as collaboration with other sectors whose policies and practices impact on malaria transmission. In addition, environmental management by individuals and communities has been undertaken in most regions of The Gambia. Recently, the government introduced an anti-littering bill to keep the environment clean. There is a monthly national cleansing exercise dubbed "Operation Clean the Nation". The cleaning exercise has greatly contributed to raising awareness of the need to reduce the mosquito population. Only limited progress, however, has been made at the municipal level to reduce man-made mosquito breeding grounds such as brick pits, pits left after road building and inefficient drainage ditches.

## 2) Financing

Only government funding is available for larval control activities. An indicative costing for the 2009-2010 period is as in the tables. The costing includes training, sensitization commodities and equipments procurement and larviciding implementation (pumpers, logistic etc). A costing of larval using the Malaria costing Tools indicates that funding needs are highly covered

The funding gaps to reach country targets are indicated on Table 14.

# 3) Implementation status

Larval control has been implemented in the Gambia at experimental level. Its feasibility and appropriateness have been demonstrated in recent experimental studies that have yielded data to guide malaria control activities. Between 2005-2007, the effectiveness of larviciding in a rural area was recently examined in a large scale intervention research project by Durham University, the MRC Laboratories and NMCP (Majambere et al, 2007). Bti larvicide was applied every week to all major Anopheline breeding sites in four rural areas spread over 400km2 along the middle reaches of the Gambia River. This successfully reduced Anopheline mosquito larvae by over 90% and Culicine (nuisance) mosquito larvae by approximately 75%. However, there was no reduction in the incidence of clinical malaria in children living in nearby villages.

## 4) Management and partners' roles

Partners are weakly involved in larviciding intervention. The main non governmental partner involved is MRC who conducted the experimental research intervention. Some private companies provide small support to cleaning exercise.

## 5) Communications

There is no active or passive community support for this intervention as it has been implemented as a pilot demonstrative experience. Acceptance issues to address haven't been yet identified and there is non IEC / BCC approach clearly defined with standardized materials available.

# 6) Monitoring and evaluation

Larviciding is not yet routinely monitored by the malaria M&E system. Data on the susceptibility of vectors to the potential larval control agents probably exist at MRC level. There is no systematic monitoring development of and managing resistance to these. It doesn't appear that breeding site mapping routinely take place for planning and to measure achievements.

# b) Gaps and requirements

#### i. Key bottlenecks and challenges

- 1 Larviciding is limited to certain regions within the country (Greater Banjul area)
- 2 Inadequate supplies of larviciding and equipment for application
- 3 Low community involvement in larviciding
- 4 Inadequate knowledge about larviciding at community level
- 5 No support available for communities to conduct larviciding

## ii. Proposed solutions to attain 2010 targets

- 6 Larviciding should be scale-up to other regions to cover wider areas
- 7 Strengthen community sensitization on larviciding
- 8 Increase resource mobilization for larviciding
- 9 Build factory to produce larvicides in the Gambia
- 10 Build capacity at regional level on larviciding

Table 14 – Larval Control and Environmental Management funding needs (costs in USD)

2008	2009	2010	2011	2012	2013	2014	2015	Total
23 387	27 830	28 155	45 503	28 804	29 127	29 404	46 727	258 937
68 560	70 274	72 031	73 832	75 677	77 569	79 509	81 496	598 948
	23 387	23 387 27 830	23 387 27 830 28 155	23 387 27 830 28 155 45 503	23 387 27 830 28 155 45 503 28 804	23 387 27 830 28 155 45 503 28 804 29 127	23 387 27 830 28 155 45 503 28 804 29 127 29 404	23 387 27 830 28 155 45 503 28 804 29 127 29 404 46 727

<sup>\*</sup>Calculated with the malaria costing tool

# Malaria in Pregnancy (IPT)

# a) Situation analysis

# 1) Policy, strategy and approaches

MIP is a key pillar of the Malaria policy and Strategic Plan. It is based on a three pronged approach including early diagnosis and prompt treatment of malaria during pregnancy, the use of insecticide treated bednets (ITNs) and the provision of Intermittent Presumptive Treatment (IPTp). This latter strategy was successfully introduced in 2002. The strategy also includes IEC and environmental sanitation. All are combined strategies.

# 2) Financing

DONORS are currently supporting this component. GFATM is providing a nationwide support. AWARE RH project has provided support for the North Bank during its lifetime but has ended. UNICEF is also buying nets for children under five in a smaller scale. The Gambian Government ensures staffing and institutional support.

The country estimates of costs to deliver both doses of IPTp are about 1 USD. This cost include sensitization, SP and quinine procurement and distribution, review printing and distribution of guidelines, training of providers, ITN procurement and distribution

# 3) Implementation status

Based on GFTAM quarterly reports, the number and percentage of health facilities implementing IPTp is 31(100%) in the western region (round3) and 31 (85%) in the other regions of the country (round 6). IPT uptake has been increasing since introduction in 2002 but IPT2 uptake is still relatively weak. In a nationwide survey of antenatal clinic data, 54% of pregnant women who registered for antenatal care in 2006 received at least one dose of IPT (CIAM, unpublished data, 2008). However, there was wide regional variation ranging from 16% in Upper River Region to 77% in Central River Region.33% of pregnant women had received two doses of the IPTp drug sulphadoxine / pyrimethamine (S/P) during pregnancy (MICS, 2006).. About 49% of pregnant women that received the first dose of IPT also got the second dose.

Reproductive and Child Health (RCH) units are the main implementers of MIP intervention. Trekking ANC teams also provide ITNs and IPTp but no documentation neither in the annual reports neither in the Strategic document is related to these trekking activities

Training of health personnel on Malaria in Pregnancy focusing on the IPT strategy has been conducted widely. From GFATM reports, it appears that a cumulative total of 557 health workers have been trained for the reporting period. Regarding community trainings, a total of 6388 community members were trained on prevention and control of malaria in pregnancy including the IPT strategy. The people trained included, Traditional Communicators, Drama groups influential and opinion leaders together with other community members. These are expected to carry out the community IPT IEC activities.

The training manual is developed as the national training guidelines to improve the knowledge, skills and attitude of health workers on Malaria in Pregnancy (MIP). The training manual covers IPT, case management and ITNs distribution to pregnant women.

The main constraints impeding MIP activities are the high attrition rate of health personals and inadequate logistic for trekking activities.

# 4) Management and partners' roles

Within DOSH, NMCP and the RCHP collaborate and work closely with all stakeholders at National, Regional, Facility and Community levels in the implementation of IPT strategy in the country. This collaboration is translated trough the establishment of a technical advisory group on policy formulation, planning and implementation of MIP Strategy. Other DOHS department also play a role in the implementation of the MIP policy. These include National Pharmaceutical Service, Regional Health Teams, Health Facilities, The Private sector / NGO health facilities.

External partners such as UN Agencies, donors, international NGOs are also involved and provide technical assistance in policy development, distribution of nets and community mobilization. The role of each of this partner is well described in the MIP guidelines.

## 5) Supply and logistic

Significant progress has been achieved in ensuring adequate supply of IPT medication. Stockouts have been reduced and are no longer a major problem. From the GFATM reports, the number and percentage of health facilities with no reported stock outs lasting more 1 week was 32 (96%) at Round 6 quarter 5 and 16 (100%) for the Round 3 Qtr 16 Transport and logistics remains a problem particularly from regional to facility levels. There is only one ambulance available at districts for many tasks such as referral, drugs transportation and trekking teams.

SP is managed within the national pharmaceutical system which is under NPS responsibility. At facility level, Sulfadoxin-Pyrimethamin is kept in the pharmacy and provided with prescription.

## 6) Communications

IEC/BCC activities are implemented specifically toward pregnant women on IPT. Information, Education and Communication (IEC) on IPT has been intensified at community level and outreach stations. Different channels of community were used including Radio, TV and community meetings .IEC materials like posters, T/Shirts and leaflets were distributed to the health facilities and communities for IPT IEC activities. Bill boards were also constructed on major high ways to inform people especially travelers. The trained drama groups and TCs also conducted series of performances at community level for public education. No data being collected on message effectiveness.

# 7) Monitoring and Evaluation

There are data routinely collected at facility level regarding uptake of IPT. A number of process Indicators are listed in the national strategic plan such as the percentage of registered pregnant women that received only one dose of SP (1st dose) in each health facility and regional, the % of registered pregnant women that received two doses of SP (1st and 2nd doses) in each health facility and region and Number of IEC campaigns conducted on IPTp in mass and traditional media according to work plan.

These data are captured in ANC/maternity registers and then linked to HMIS. Regional Health Team also perform monthly supervision visits to health facility while program and central level conduct quarterly monitoring visits to regional Health Teams. At the health facility levels, key issues identified included women not reporting early for ANC registration leading to low uptake of IPT2.

# b) Gaps and requirements

## i. Key bottlenecks and challenges

- 1 Lack of data on awareness of IEC/BCC activities on IPTp
- 2 Lack of KAP studies on IPTp in these regions
- 3 Low coverage for IPTp 2
- 4 No data captured on effectiveness on IPTp tools
- 5 IPTp services not delivered by all private sector / NGO partners
- 6 Embassies not fully aware of IPTp services
- 7 Late booking for ANC services
- 8 Inadequate data management skills among health workers

## ii. Proposed solutions to attain 2010 targets

- 1 Data on awareness of IEC/BCC activities on IPTp should be collected
- 2 KAP studies should be conducted on IPTp in these regions
- 3 Conduct operational research to establish barriers to IPTp 2 up-take and use research findings to address the issues

#### iii. Technical assistance needed

- 1 To develop a comprehensive national MIP implementation and joint (NMCP, RH and the Regional Health Teams) supervision, monitoring and evaluation plans;
- 2 To set up a database on trainings conducted and design a mechanism to systematically monitor the effectiveness of the trainings as an intervention to improve performance;
- 3 To put in place a Mechanisms to ensure community ownership of interventions (MIP) being implemented (community mobilization and action plans, community self monitoring and evaluation system to demonstrate ownership);
- 4 KAP study on IPTp
- 5 To conduct operational research to establish barriers to IPT2 and use research findings to address issues
- 6 To develop MIP research agenda;
- 7 To develop pregnancy exposure register.

Table 15 – IPT funding and major commodity needs to attain RBM 2010 targets (costs in USD)

Number and cost of pregnant women receiving IPT	2008	2009	2010	2011	2012	2013	2014	2015	Total
A. Average Cost of IPT (2 doses) per pregnant woman*	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	
B. Number of pregnant women targeted to reach 100% coverage	113 367	116 507	119 734	123 051	126 460	129 962	133 465	136 968	999 515
C. Number of pregnant women targeted to reach RBM targets (or national if higher)	90 694	93 206	95 788	98 441	101 168	103 970	106 772	109 575	799 612
Resoourece needeed	90 694	93 206	95 788	98 441	101 168	103 970	106 772	109 575	799 612
D. Available resources for IPT	32 000	41 000	34 000	37 000	23 000	5 000	5 000	5 000	182 000
FUNDING GAP to reach RBM targets (or national if higher) (A*C) - D	58 694	52 206	61 788	61 441	78 168	98 970	101 772	104 575	617 612
Total number of SP doses required to reach RBM targets (or national if higher)	181 387	186 411	191 575	196 882	202 335	207 940	213 545	219 149	1 599 224
COMMODITY GAP to reach RBM targets (or national if higher) - number of SP doses	58 694	52 206	61 788	61 441	78 168	98 970	101 772	104 575	617 612

# 5.2 Case management

# 5.2.1 Diagnosis

# a) Situation analysis

# 1) Policies, strategies and approaches

There is no stand alone malaria diagnosis policy. It's part of the malaria case management policy. The case management training guide is based on WHO recommendations with an annex section describing diagnosis methods. The guidelines do not specify the role of microscopy and RDTs in case management including at what level they should be used and by whom. Laboratory methods are described in detail the Giemsa stain thick blood smears as the basis for microscopic diagnosis. Other diagnosis methods are Rapid Diagnostic Tests (RDTs) and the Quantitative Buffy Coat test. A general instruction for malaria rapid test dipstick job aid is also available. This document describes the procedures but does not specify the type of test.

Use of RDT is not effective at community level. There are non specific criteria to determine use of microscopy and/or RDTs when a malaria symptomatic patient presents.

Home-based management of malaria (HMM) is also part of the malaria case management policy and is implemented Nationwide but reported only for the western region. National guidelines on HMM exist and RDTs are not used at community level. For children under five, the Community integrated management of childhood illness approach is the recommended approach.

## 2) Financing

GFATM, WHO GOG are the current funding donors supporting diagnostic services. This funding include procurement, transportation of diagnostic materials, laboratory equipments and training.

## 3) Implementation status

#### Training and supervision

From GATM report, 45 laboratory assistance and 15 nurses have been trained on malaria microscopy and the participants are draw from both public and NGO. The aim of the trainings was to standardize and improve on malaria microscopy for accuracy diagnosis. These national training of laboratory personnel occurred once to twice per year and have been taking both format on-job and workshop type. Trainers have been selected by the NHLS which conducted training of trainers.

The guidelines are sufficiently explicit for health workers on how to interpret and follow results of parasitological malaria diagnosis. They include the management of negative slides and treatment failure.

As for all components, supervision visits are organized on a quarterly basis by central level to regional health Team RHT and some facilities. RHT performs monthly basis supervision to facilities. This supervision check for quality of data collected. No data are collected on the proportion of health workers who treat according to laboratory results.

#### Laboratory services

Hourly access to laboratories is limited as most of them are opened from 08AM to 02pm. However, there are no barriers to equitable access to parasitological services such as costs, capacity. Services are free of charge for targeted groups and at minimal cost for others (only for consultation). Barriers to high quality laboratory services are the limited number of skilled personnel, and overall health/socio-economic constraints such as lack of electricity, lack of adequate storage facilities for RDTs and reagents.

## 4) Management and partners' roles

The National Pharmaceutical Service is responsible for adequate laboratory services provision at facility level. Besides public health facilities, most of private and NGO facilities provides laboratory services. It is difficult to appreciate how these private comply with MoH policy. At regional level, the RHT are responsible for coordinating all partners. They ensure as possible adequate adherence to national protocols by all providers.

## 5) Procurement and logistics

The procurement process is coordinated between the National Pharmaceutical Service (NPS) the NMCP and the National Laboratory Services (NLS). is responsible for procurement while is for storage. This process is related to laboratory commodities and equipments. There is no specific branding policy regarding equipments.

Quantification is based on adjusted consumption and morbidity data. Forecasting procedures are not fully reliable and commodities stock still exist.

The Royal Victoria teaching Hospital is responsible for labs reagents storage and distribution.

## 6) Communication

Diagnosis is not as a stand alone issue but included in the national case management communication strategy.

# 7) Monitoring and evaluation (including quality control and external quality assurance)

Quality control of slides is currently taking place under NLS responsibility. This QC system based on the collection of 10% of slides does not include the private sector of the community. There is no quality assurance process in place neither for microscopy nor for RDTs.

## b) Gaps and requirements

i. Key bottlenecks and challenges

- 1 Limited access to diagnostic services in some regions
- 2 Lack of 24 hrs laboratory access
- 3 Inadequate and interrupted electricity supply
- 4 Limited diagnostic services are being provided by partners
- 5 Inadequate human resource at the level of the lab
- 6 No routine maintenance of microscopes
- 7 National quality control system do not cover the private sector

# ii. Proposed solutions to attain 2010 targets

- 1 Expand laboratory services
- 2 Increase availability of RDTs to increase access to diagnosis
- 3 Increase access to laboratory
- 4 24 hrs availability of electricity supply
- 5 Provide regular maintenance of microscopes
- 6 Build capacity on malaria microscopy and malaria diagnosis
- 7 Extend quality control services to private sector labs

## TA needs

- 1 Set up reference laboratory for diagnosis of malaria
- 2 Build capacity on malaria laboratory diagnosis

Table 16. Diagnostic services funding and major commodity needs to attain RBM 2010 targets (costs in USD)

14510 101510	Ignostio	sic services funding and major commodity he			Tecus to attain Rem 2010 targets (60				Joseph Joseph						
Number and cost of malaria diagnostic services		2008		2009		2010		2011		2012		2013		TOTAL	
	Age Group	Micro- scopy	RDTs	Micro- scopy	RDTs	Micro- scopy	RDTs	Micr o- sco py	RDTs	Micro- scopy	RDTs	Micr o- sco py	RDTs	Micro - scop y	RDTs
A. Average cost per															
diagnostic test	All		1,25		1,25		1,25		1,25		1,25		1,25		1,25
B. Number of															
suspected malaria															
(fever) cases targeted															
to be tested	< 5 yrs		127 053		631 049		997 252		743 256		727 667		747 823		3 974 101
to reach 100%															
coverage	> 5 yrs		246 302		991 058		1 623 023		1 403 725		1 408 661		1 447 681		7 120 451
	Total														
	(<5+>5 yr)		373 355	0	1 622 107	0	2 620 275	0	2 146 981	0	2 136 328	0	2 195 505	0	11 094 551
C. Number of															
suspected malaria															
(fever) cases targeted															
to be tested	< 5 yrs		101 642	-	504 839	-	797 802	-	594 605	-	582 134	-	598 259	-	3 179 280
to reach RBM targets															
(or national if higher)	> 5 yrs		197 042	-	792 847	-	1 298 419	-	1 122 980	-	1 126 929	-	1 158 145	-	5 696 361
	Total (<5+>5														
	yr)		298 684	-	1 297 686	-	2 096 220	-	1 717 585	-	1 709 063	-	1 756 404	-	8 875 641

D. Available													
resources for malaria													
diagnostic services	All	100000	100000		100000		100000		100000		100000		600 000
FUNDING GAP to													
reach RBM targets													
(or national if higher)													40 404
(A*C) - D	All	273 355	1 522 107		2 520 275		2 046 981		2 036 328		2 095 505		10 494 551
Total number of				/								/	
RDTs required to													
reach RBM targets													5 807
(or national if higher)		238 947	774 320		1 357 856		1 136 226		1 134 397		1 165 819		565
COMMODITY GAP				/		/		/		/		/	
to reach RBM													
targets (or national if													
higher) - number of													5 327
RDTs	All	158 947	694 320		1 277 856	/	1 056 226		1 054 397		1 085 819		565

#### 5.2.2 Treatment

# a) Situation analysis

# 1) Qualitative Issues: Policies, strategies and approaches

Malaria case management is also a pillar of the national policy. The first line drugs is the combination Artemether-Lumefanthrine (Coartem) and the second line drugs is Quinine. This latter drug is the one recommended for treatment of severe malaria, administered by either IV or IM route depending on the availability of the infusion facilities. These recommendations are in line with WHO guidelines.

Since September 2008, nationwide community deployment of malaria treatment is effective and implemented by Village health workers (VHW). Artemether-Lumefanthrine (Coartem) is also the treatment is recommended at that level.

Recommendations exist on drug options for treatment of malaria in pregnant women. In pregnancy context, uncomplicated malaria is considered as an emergency condition and requires a very effective treatment with lowest possible clinical failure.

Policy changes are based on locally generated evidence Resistance of Plasmodium falciparum to chloroquine was first detected in The Gambia in 1986, but resistance has subsequently become increasingly prevalent. In 1998, a Government study conducted in Mansa Konko and Basse showed 6% clinical failure rate by day 7 increasing to 9% by day 14.

The national policy includes public private partnership. Many Private Health facility are targeted by malaria control interventions

## 2) Financing

GFATM, WHO Unicef and the GOG are the main funding donors supporting malaria treatment.

Besides these, some voluntary organizations and NGO's are providing drug donations.

Consultation fee to the public for malaria exist at all levels of the health system, but they are free for children under 5 and pregnant women. For non target groups, the 05 dalasi payment is made for treatment and is part of a cost recovery system.

No incentives are distributed to VHW for malaria activities as they already receive incentive for TB through GFATM.

Malaria treatment is highly subsidized and cost is not a limiting factor to accessing prompt and effective treatment. Access to treatment is globally equitable but non Gambians pays upper fees than Gambian even if this is still is a low fee.

# 3) Implementation status: Training and supervision

Training manuals and standard treatment guidelines on case management exist. There is only one manual for all levels except for VHW who are trained using an integrated training manual. National training sessions of health workers occur twice a year and the format is both on-job and workshop type. The trainers are selected and by RHT and TOT is performed by central level. Health workers in the private are part of national training programs but not those from informal sectors. These latter are informed on malaria treatment trough sensitization.

All trained health workers including Village Health workers are allowed to dispense ACT.

# 4) Clinical/community care and follow up

#### (a) Uncomplicated malaria

Treatment of uncomplicated malaria is basically presumptive for under five, IMCI syndromic approach being recommended. For above 5, diagnosis test usage is encouraged before treatment. Blood slides for malaria parasites are also required for confirming the diagnosis in areas of low endemicity and in cases of treatment failure.

Timely access to lower level health facilities is unlimited as they are 24h opened to provide services with no difference during week ends.

#### (b) Severe malaria

Quinine is clearly the recommended drug for the treatment of severe malaria. Clear guidelines exist on the complete treatment for a severe malaria case. Pre-referral treatment is not described while ancillary treatments are recommended. These latter refer to urgent treatment related to coma or unconscious patient, convulsions, severe dehydration or shock and severe anemia. Supportive treatment is related to high temperature, Pulmonary oedema, renal failure and profuse bleeding. Treatment is provided over 24 hours and there are no limitations.

## 5) Health systems

Timely referral and transfer of patients from one level of health care to another, still faces difficulties due to paucity in the number of trained personnel as well as an inadequate number of ambulances which are also not always sufficiently fuelled and satisfactorily maintained. This is aggravated by the fact that the facilities receiving these referrals lack the capacity to manage most of them effectively. Late referrals and unsafe methods of evacuation of patients especially at community level contribute to preventable deaths. This situation is further compounded by the lack of or non-functioning telecommunication system within the referring or receiving health facilities

No specific data exist on the pattern of treatment seeking behavior. Delay in seeking behavior it still commonly observed despite a high awareness. No survey has been performed to assess the proportion of the private or informal health use as first point. Traditional healers appear still to be the first choice in rural area

# 6) Management and partners' roles

Public health facilities, nurses, privates and NGOs are the major players in providing treatment services. The Royal Victoria Teaching Hospital (RVHT) is the ultimate referral facility where all public and privates refer if necessary.

## 7) Procurement and logistics

The National Pharmaceutical service (NPS) in coordination with NMCP is responsible for the procurement of anti malarial drugs. NPS is also responsible for tracking the distribution/utilization of supplied drugs. but there is no mechanism to control drug leakage towards the parallel market. The regulatory status of ACTs is both over-the-counter and prescription. There is no routine system of testing the quality of antimalarials, especially ACTs, in both the public and private sectors but there is a plan to make it operational

No mechanism is in place to control the quality of importers, wholesalers, and other related businesses. However, there is a registered approved list of medicines known as the essential medicine list (EML). The selling costs of anti malaria drugs in the private sector are not tracked and less is known about level of marks up. The National Drug Regulatory Authority (NDRA) is in charge of regulation on medicines while the NMCP ensure health worker adherence to national regulations.

ACT needs quantification use a combination of methods such as number of fever episodes and consumption method. Quantification is not fully accurate as manual management of drug at regional and facility level affects reliability and quality of data on drug consumption.

It is known that beside the Coartem which the only ACT is recommended in the public health system, many other products are made available by the private sector. But no mechanisms are in place to control the private and informal sectors. In addition, there is no nationwide ban on sales of oral artemisinin monotherapies.

## 8) Communications

Malaria case management intervention is supported by community IEC and advocacy. Both electronic and print media as well as community based meetings are used. There is IEC/BCC informing the public and public health practitioners of the need to take the full course of treatment, danger signs of illness and what to do. However, these messages are not always based on results from KAP studies. No data have been captured to characterize the public's perceptions and acceptability of ACTs.

## 9) Monitoring and evaluation

The number of malaria case is routinely captured at facility level then compiled through the HMIS system. These do not include home-based management.

Supervision is integrated and is run on a quarterly basis from central level and monthly from the RHT. Supervisions are also opportunity to monitor quality of malaria case management in both public and private sector. Malaria treatment efficacy is monitored by MRC and as mentioned above, findings effectively inform the policy. In the other side routine pharmacovigilance system isn't yet well established.

## b) Gaps and requirements

# i. Key bottlenecks and challenges

- 1 Inadequate incentives given to VHWs
- 2 Inadequate resources(antimalarial drugs and human) to support malaria case management at facility level
- 3 Delay in health care seeking early treatment
- 4 No data on health care providers prescribing practices
- 5 Some private sector /NGO not adhering to the national malaria treatment guideline
- 6 VHWs not using RDTs in malaria diagnosis
- 7 No additional staff deployment during malaria peak season at facility level
- 8 No indication on the proportion of health workers adhering to national treatment guidelines
- 9 Antimalarial drugs in private sector/ NGO are not tracked and there are no limits for mark-ups

## ii. Proposed solutions to attain 2010 targets

- 1 Provide additional incentives to VHWs
- 2 Adequate resources(antimalarial drugs and human) should be provided to support malaria case management at facility level
- 3 Intensify IEC/BCC at community level to promote early treatment
- 4 Data on health care providers prescribing practices should be provided
- 5 All private sector /NGO should be encourage to adhere to the national malaria treatment guideline
- 6 Measures should be put in place to train VHWs on malaria using RDTs
- 7 Accelerated intake in training institutions
- 8 Study should be conducted to determine the proportion of health workers adhering to the national treatment guidelines in the management of malaria
- 9 Mechanism should be put in place to keep track of antimalarial drugs in private sector/ NGO

### Iii. Technical assistance needed

- 10 Setting up of drug quality control system
- 11 Training on drug quality control and post marketing surveillance
- 12 Training of trainers on pharmaco-vigilance
- 13 Training on pharmaceutical management for malaria (procurement and supply management- e.g. drug quantification using quantimed)
- 14 Training of trainers on management of malaria (case management)
- 15 Set up a computerized drug inventory control system at the regional levels
- 16 Malaria-matrix study to determine the prevalence and incidence of malaria (uncomplicated and severe malaria)
- 17 Training on use rational use of antimalarial drugs
- 18 Study on prescription pattern and practices and rational use of antimalarial drugs

Table 17 – Treatment funding and major commodity needs to attain RBM 2010 targets (costs in USD)

Number and cost of malaria treatments	Age	2008	2009	2010	2011	2012	2013	2014	2015	Total
	5-11	2000	2000	2010	2011	2012	2010	2011	2010	1000
	mo.	0,9	0,9	0,9	0,9	0,9	0,9	0,9	0,9	
Average cost per	1-6 yr	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	
treatment*	7-13 yr	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	
	> 14 yr	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	
	Total	4,9	4,9	4,9	4,9	4,9	4,9	4,9	4,9	4,9
	5-11	,	,	,	33 864	27 841	28 613	29 384	30 155	,
	mo.	220 934	166 430	85 672						622 892
Number of cases targeted for	1-6 yr	553 286	421 978	222 947	88 124	72 452	74 459	76 466	78 473	1 588 186
	7-13 yr	258 967	179 947	75 913	30 006	24 670	25 353	26 037	26 720	647 613
treatment	> 14 yr	656 516	416 305	127 859	50 539	41 551	42 702	43 853	45 004	1 424 329
	Total	1 689 702	1 184 661	512 392	202 533	166 514	171 127	175 739	180 352	4 283 020
Available					1 703 758	887 266	70 815	72 585	74 400	
Resources	All	1 501 630	2 321 372	1 702 114		007 200				8 186 954
FUNDING GAP	All	6 777 909	3 483 466	808 608	-711 347	-71 345	767 707	788 538	809 324	12 799 844
Total number of										
1 <sup>ST</sup> line doses										
required		1689702	1184661	512392	202533	166514	171127	175739	180352	4 283 020
COMMODITY										
GAP - number of										
1st line doses		1 383 247	710 911	165 022	-145 173	-14 560	156 675	160 926	165 168	2 582 216

# 6. Cross-cutting issues

# 6.1 Advocacy/BCC/IEC

# a) Situation analysis

# 1) Policies, strategies and approaches

Advocacy is one of the main components in the National Strategic. All audiences are targeted by the national program specifically addresses in the advocacy activities. Parliamentarians, traditional leaders, journalist and many other groups have been approached in the framework of this advocacy intervention.

Beside Advocacy, IEC BCC activities support both malaria prevention and case management interventions. Communications and behavior change is part of the MOH Strategic Health Plan and this component is specifically described in the NMCP strategic plan. There is no specific Malaria Communications (and Behavior Change) Strategy but guidelines exits.

# 2) Implementation status and approaches

## Political leadership

Advocacy is a cross cutting strategy, a key aspect of which is to provide adequate, accurate and timely information to policy decision-makers. This strategy has been extensively used in malaria prevention and control in The Gambia at very high levels. In April 2000, during the African Summit on Roll Back Malaria, the President of the Republic of The Gambia committed the country to the "Roll Back Malaria Partnership" and made commitments "to intensify efforts to halve the malaria mortality for Africa's people by 2010".

The Head of State is successfully involved in malaria control. He highly supports IVM intervention notably IRS larviciding and environmental sanitation. In February 2008, the President launched "Operation Eradicate Malaria in The Gambia". He doesn't personally attend WMD rallies but always delegates the MOH. With the technical support of CIAM, parliamentarians have been trained on Malaria and have committed themselves in integrating key pronouncements on malaria into politician their speeches.

As same as the Head of State, health and administrative authorities at provincial/district/county levels) are also involved in advocacy. They chair national Malaria events such as attending or leading WMD rallies.

## 3) Financing

Financial resources are made available to carry out advocacy and communication activities. They are allocated both from national budget and from partners such as GFTAM and WHO. There are specific allocated funds for advocacy activities Table 19. Table 26.

#### 4) Coordination

To some extend a coordination mechanism exists between NMCP and partners on advocacy needs and activities. However, most of the time there is no routine coordination task force except quarterly meetings with partners. There are ad hoc coordination mechanisms for special events (e.g. WMD, SADC malaria day).

All (RBM) partners have been involved in the development of the MNCP communication strategy. The same implication is observed during update and approval process.

No current newsletter exists to disseminate information to partners. The "Diatta Kindya" newsletter use to be issued by DOSH covering all diseases but the issuing has stopped for a long time now. The revitalization of this publication is planned by DOSH.

There is no private sector network capacity building strategy in-place. Private sector is nevertheless involved in IEC and BCC (or advocacy) activities. For example GAMCEL have provided T shirts. The Association of health Journalist, Total Gambia (T-shirt + fund), and some Banks provide support to malaria control. They are included as partners. Shell Company bought nets and air time radio for community sensitization.

# 5) Key Opinion Leaders/Organizations

Key opinion leaders, civil society and other relevant organizations are really involved in the communication/IEC/Advocacy activities. One can list the Imams, professional Groups such as teachers and multidisciplinary facilitating team (regional level), CBOs and Women groups. Popular and well-known personalities celebrities are also committed. The famous artist Dialiba Kouyateh is one of them. As a Unicef Ambassador he gives support to malaria social mobilization activities

However, opinion leaders are not involved in resource mobilization.

## 6) Community activities

Sensitizations are the basic community level advocacy activities implemented. Civil society plays a determinant role both for advocacy and IEC activities at the community level. This includes community health workers networks, Outreach services, FBOs, CBOs, FB and traditional healers). All these groups have been trained or sensitized on malaria and provided with materials to distribute or use.

#### 7) Media-related activities/mass media

Media have been interested and involved in malaria activities. All media channels, written press Radio and TV are being used to promote behavior change. These activities includes interactive Malaria shows or road shows, Radio spots or programs, public debates on radio/TV, TV series with malaria messages integrated ("social soap series") Newspapers' special editions or thematic insert. There is not web sites yet devoted to Malaria.

# 8) Monitoring and evaluation

The communication strategy does include an M&E component and communication indicators have been defined. Routine data are collected and reported such as the number and percentage of communities reached trough ITN promotion campaigns, community volunteers trained and radio programs on the promotion and correct use of ITNs.

Beside routine data, regional and nationwide surveys measure knowledge indicators such as general knowledge on Malaria, causes of malaria and other KAP indicators. But there are no small scale KAP studies.

### 9) Development and production of IEC materials

Development of IEC materials is centrally coordinated and overseen by NMCP or other organization designated by the program but still some partners develop their own materials. Messages and IEC materials are as much as possible harmonized. Main partners are CRS HEPDO and NSSAA.

Ad hoc review commissions are set for IEC materials. There is no regular review commission meeting. The review procedure is based on experience and is no standardized.

Audience specific materials exist targeting pregnant women, children under five and differentially ables. Specific materials is also developed and used notably for Malaria Day, Net retreatment campaigns and other special events.

IEC materials are tested before printing. They don't need official (NPMC/MOH) approval before printing. This allows some partners to develop and use their own material.

But there are no standardized clear procedures. Revision of material occurs under certain circumstances such as change f policy, emerging issues.

# 10) Educational programs

Specific educational programs or school activities have been developed by Novoscotia Gambia Association NSGA Peer education. These programs target children and adolescents.

Peer Health Educators and 172 Teacher Coordinators drawn from 84 schools, 424 students reached by in-school presentations by PHE teams. Communities reached by NSGA peer health education program reaching an estimated number of 30, 343 people in these communities.

Schools do have space in their schedule/curriculum for health or malaria related activities. Have bee trained Teacher coordinators

Education authorities at different levels are, as well as teachers being "trained" for the use of these programs? Teacher coordinators

# 11) Methodologies and research

Except large scale surveys, there is a lack of operational research on malaria communication issues in the Gambia. There is no task force or research group on operational research.

## b) Gaps and requirements

#### i. Key bottlenecks and challenges

- 1 No established mechanism for IEC materials development and approval
- 2 Weak coordination mechanism between NMCP and some partners on advocacy
- 3 No private sector network capacity building strategy in-place on advocacy
- 4 No malaria news letter
- 5 Inadequate IEC materials at community level
- 6 Inactive structures for resource mobilizations
- 7 Inadequate funds for community sensitization activities
- 8 Inadequate advocacy activities for malaria at levels

### ii. Proposed solutions to attain 2010 targets

- 1 Develop a social mobilization strategy for malaria prevention and control
- 2 Strengthen coordination between NMCP and partners
- 3 Establish a mechanism for development and approval of IEC materials
- 4 Provision of private sector network capacity building
- 5 Establish a private sector network capacity building strategy for advocacy
- 6 Establish a malaria newsletter
- 7 Produce and distribute adequate IEC materials at community level
- 8 Establish mechanism to raise funds for IEC activities and materials development
- 9 Diversify source of funding for IEC/BCC activities.

#### iii. Technical assistance needed

- Technical Assistance would be needed in the area of strengthening the RBM partnership at country level. Partnership exist but on adhoc basis. Partners only meet to resolve issues as they arise. Regular partnership meetings are only conducted on quarterly basis with Global Fund implementation only.
- 2. Existence of a strong partnership can help the program increase advocacy and resource mobilization for malaria. A communication well defined across the whole program needs to be developed to support the implementation of the whole national strategy.
- 3. Partner capacity building programs also need to be addressed but this can only happen if the partnership is well established and clearly defined.
- 4. TA is therefore needed to strengthen the Roll Back Malaria Partnership at country level to achieve best results in partnership.

Table 19 – Advocacy, IEC / BCC funding needs (costs in USD)

	2008	2009	2010	2011	2012	2013	2014	2015	Total
Costs for planned advocacy activities	367,130	367,130	367,130	367,130	367,130	367,130	367,130	367,130	2,937,040
Costs for planned BCC/IEC activities	4,883,410	4,992,730	4,883,410	4,992,730	4,883,410	4,992,730	4,883,410	4,992,730	39,504,560
Total estimated costs	5,250,540	5,359,860	5,250,540	5,359,860	5,250,540	5,359,860	5,250,540	5,359,860	42,441,600
Available resources for advocacy	30,500	55,500	40,500	40,500	40,500	30,500	30,500	30,500	299,000
Available resources for BCC/IEC	471,543	672,413	213,547	453,017	226,457	9,896	9,896	9,896	2,066,664
Total available resources	502,043	727,913	254,047	493,517	266,957	40,396	40,396	40,396	2,365,664
FUNDING GAP – advocacy	336,630	311,630	326,630	326,630	326,630	336,630	336,630	336,630	2,638,040
FUNDING GAP – BCC/IEC	4,411,868	4,320,317	4,669,863	4,539,713	4,656,954	4,982,834	4,873,514	4,982,834	37,437,896
TOTAL FUNDING GAP	4,748,498	4,631,947	4,996,493	4,866,343	4,983,584	5,319,464	5,210,144	5,319,464	40,075,936

# 6.2 Surveillance, Monitoring and Evaluation & Operational research

# a) Situation analysis

# 1) Policies, strategies and approaches

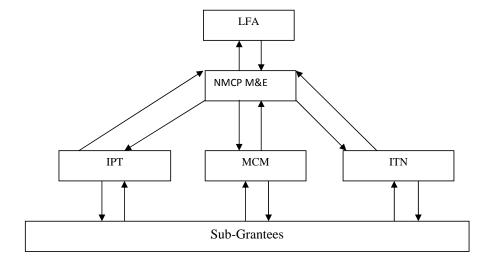
There is no national M&E plan. As strict requirements of GFATM agreements, monitoring, evaluation and reporting have been developed to meet GFATM round 3 and round 6 stipulations. Despite this lack of integration, M&E activities are strongly linked to the national HMIS trough standardized data collection tolls. In addition, HMIS has greatly benefited from Malaria GFATM grants in term of capacity building, human resources and equipments. Comprehensive quarterly and annual reports are produced but still specific to each GFATM grants.

### 2) Implementation status

### Program organization

The data collection systems use a variety of methods but rely basically on routine data collection from health facilities and other primary data from NGO and other implementing groups. The system also includes the organization of large impact surveys. Literature search and documentation review are also be used, where necessary, to complement the primary data.

The GFATM M&E system is described on the flowchart below.



An M&E coordination unit and team is based within NMCP office. The M&E staff includes an M&E specialist, an M&E coordinator, an M&E assistant, a data manager and an IT technician. Both qualitative and quantitative data are regularly reported and effort is done to ensure quality control of data. The data collection system has been strengthened by hiring data entry clerk at facility level. Analyze and reports are produced from the regional to the national level with cross checking mechanisms.

### 3) Financing

The M&E plans are costed and sufficiently funded to be implemented and respond to GFATM requirements. More is needed to implement all required surveys and KAP studies.

#### 4) Data collection tools and checklists

There is an M&E Framework with minimum agreed indicators (list indicators) and targets. A database of routine exists in combination with HMIS and survey database as well. Introduction of the WHO Global Database is not yet effective but planned for the near future. The central M&E unit is sufficiently equipped (computers and internet access) at NMCP level. This is not the case at regional and some districts are not yet connected to internet.

# 5) Routine data collection and methodology

The data source and frequency of collection for indicators are as identified in the M&E Plan . Emphasis is placed on the collation of data that provides specific, quantifiable and time bound reporting of progress towards the achievement of results that can, as necessary, be independently verified. There is a system in place for controlling data quality. The verification method is based on a physical control of data in randomly selected facility with a threshold of 5%+- of mismatch.

The country has also completed the GFATM M&E System Strengthening assessment.

#### 6) Periodic surveys

Periodic surveys performed by the NMCP are the Malaria Indicator Survey (MIS) and the Multiple Indicator Cluster Survey (MICS). TWO MIS editions have been performed at Regional Western Division related to the Round 3 GFATM project. One baseline MIS is in progress for the Round 6 covering the other five regions.

The country surveillance system isn't strong yet. It is just starting six sites with the support of MRC and CIAM matching with HIV sentinel sites.

### 7) Cross-linked programs

The coordination and exchange mechanisms of information with other programs over M&E are weak. NMCP generally invite other program for exchange but the contrary is not frequently the case.

Routine data is regularly shared with partners, but feed back doesn't go far to the lower level of the Health system. Quarterly partner meeting include RHT and facility staff

# b) Gaps and requirements

#### i. Key bottlenecks and challenges

- 1 Inadequate equipment, such as computers and internet access at all levels for data processing
- 2 Data is not adequately shared with community groups and basic health facilities
- 3 Health facilities and community groups do not know the indicators used to monitor the impact of malaria interventions
- 4 Limited capacity(human and material) for data processing, analysis and report writing
- 5 Absence M & E plan at national level
- 6 Inadequate data quality assurance
- 7 Limited surveillance system for malaria

### ii. Proposed solutions to attain 2010 targets

- 1 There should be adequate equipment, computers and internet access at all levels for data processing
- 2 Share malaria data with community groups and health facilities
- 3 sensitize or orientate health facility staff and community groups on indicators to monitor impact of malaria interventions
- 4 Strengthen capacity on data processing, analysis and report writing
- 5 Develop a national malaria M & E plan
- 6 Strengthen data quality assurance
- 7 Strengthen surveillance system for malaria and prevention control

Table 20 – Surveillance, monitoring & evaluation and operational Research funding needs (costs in USD)

Monitoring and evaluation needs	2008	2009	2010	2011	2012	2013	2014	2015	Total
		33,710	48,610						
Routine surveillance	120,210			33,710	132,610	33,710	48,610	33,710	132,610
Routine Logistics Monitoring									-
Supervision for above and data utilization									-
Meetings for decision making									_
Drug efficacy monitoring <sup>1</sup>	180,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000	1,440,000
Insecticide resistance monitoring <sup>2</sup>	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	480,000
MIS survey <sup>3</sup>	400,000			400,000			400,000		1,200,000
Other planned surveys									-
Pharmacovigilance <sup>4</sup>	150,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000
LLIN tracking surveys <sup>5</sup>	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	40,000
IRS quality assurance <sup>6</sup>	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	400,000
Strengthening capacity to enforce regulations									-
Equipment (computers, GPS, PDAs etc)									-
Operational research	45,000	105,000	45,000	105,000	45,000	105,000	45,000	105,000	600,000
Other costs analysis and reporting	41,650	45,650	41,650	45,650	41,650	45,650	41,650	45,650	349,200
Total estimated costs	1,051,860	529,360	480,260	929,360	564,260	529,360	880,260	529,360	5,494,080
Available resources	80,925	171,925	65,925	65,925	186,925	65,925	65,925	65,925	769,400
FUNDING GAP	970,935	357,435	414,335	863,435	377,335	463,435	814,335	463,435	4,724,680

# 7. Program Management and Health Systems

# 7.1 Program Management

# a) Situation analysis

# 8) Policies, strategies and approaches

The National Malaria Control Program (NMCP) is responsible for:

- Overall coordination of the implementation of the activities;
- Preparing consolidated annual work plans from the divisional work plans;
- Preparing quarterly and annually reports and submitting these to the RBM Task Force;
- Reviewing 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;
- Providing timely feedback to directions received from the National Steering Committee and its sub-committees;
- Providing regular feedbacks and support to the division;
- Advocacy and resource mobilization.

NMCP is part of the DOHS and the decision-making authority flows from NMCP to Director of Health and to Permanent Secretary. All decisions have to be submitted to the hierarchy

Independent decisions are related to implementation and staffing issues.

Well trained staffs are located at central level. No specific staff exists at regional level where integration is based on polyvalent staff in charge of RCH, EPI, Malaria, Aids etc. However, there are specific vector control staffs at regional level in charge of ITN, larviciding and IRS activities they work under Regional Director Supervision. Central level personals are sufficient with adequate expertise for scale-up activities. The only need expressed is for an epidemiologist to strengthen the M&E program component.

### 9) Enabling environment

The NMCP benefits from sufficient office space and equipments, such as computers, phones, internet access to work effectively. NMCP is housed in a brand new building shared with CIAM and built with the financial support of Gates Foundation. There are sufficient rooms and space to host the staff in good working conditions. The expressed need is related to a vector control section such as a laboratory insectariums and non chemical stores.

The program also disposes sufficient vehicles to undertake a scale-up process. Currently each region has been provided with a vehicle and western region has benefited of two cars. An additional vehicle will be needed as the CRD this region planned to be divided into two. Four vehicles are available at central level for each of the following section: case management, IPT, M&E and Advocacy. GFATM is buying two additional small trucks for larval control activities. The NMCP expressed the need for more vehicles to strengthen IVM capacities. Moreover, larviciding is suffering from lack of sufficient machine pump.

NMCP is well equipped with communication systems; telephone, fax and internet are available. The situation is different at regional level. Some regions are still not connected to internet and except for URD, no fax is available at regional level.

GFATM is supporting some administrative cost except electricity which is afforded in association with CIAM and GBOS. Water supply is ensured by a bowl as unable to afford the town water supply system. GFATM is also supporting some functioning costs for the office such as stationary.

### 10) Financing

The main malaria funding sources are GOG, GFATM, Unicef, WHO Gates Foundation and Irish Aid. The Highly Indebted Poor Countries Initiative is also a significant funding source for the health system including malaria. In addition, the Head of State purchased larvicides and bought two aircrafts for larviciding. The Republic of Taiwan provides some support while Cuba has allocated two technical staff to support larval control.

Funds flow through a route from Donors to the Central Bank or the Treasury. They go to the Permanent Secretary before reaching NMCP.

### 11)Planning, monitoring and budgeting

At central level, NMCP focal points are responsible for the planning in collaboration with regional polyvalent teams. In fact, all levels are involved in the planning process. Other stakeholders involved include Central Medical Store CMS, Directorate of Plan and Information DPI, Reproductive and Child Health RCH, EPI, IMCI, Environmental Health, Finance Budget, Human resources, Hospitals, University of the Gambia, MRC and trainings schools

The program has clearly defined goals, objectives and targets which are based on MDGs, Abuja and RBM targets. Globally, malaria program fit into the development objectives of the country as part of the Master Health policy and the Gambia vision 2020.

Objectives and targets are translated into operational plan which are used to guide program implementation. These plans fall into GFATM requirements and serve as evaluation tool as well.

The NMCP has adequate capacity to plan and forecast financial resource needs and to implement a plan. In some circumstances, NMCP uses consultant services (i.e. for proposal development) but for routine the capacity exists. Staff shortage is more important at regional level

NMCP absorptive capacity to scale up malaria control efforts is high. The R3 has achieved a 90% absorption rate. Exception of conditionality supply procedure and regulations

NMCP contract out major components of its program to ensure rapid and efficient interventions scale. Bet net distribution is delegated to CRS Action Aid and Hepdo, IEC is performed by NGOs. MRC is responsible for drug and insecticides efficacy trials. ACT procurement is under WHO responsibility.

NMCP is responsible for Case Management IPT LAV and M&E

Supervision takes place quarterly. With data collection then feed back .The NMCP communicate with the district staff trough quarterly meeting. Links with district staff are related to activity implementation, funds transfer, and participation and follow up. Information channel relies on telephone internet alongside with official correspondences. Communication channels exist with the staff of related programs such as RH/MCH. This latter is involved in the planning and implementation process as then region implement IPT at regional level. Trough his GFATM grant, the NMCP has supported the production of ANC register and children card for RCH in the framework of MDG achievements despite .RCH is not a SR of GFATM

The principle of integration EPI RCH IMCI malaria are all integrated

### 12)Co-ordination of RBM partners and RBM partners roles

#### **National**

A national malaria coordinating committee is supposed to exist and chaired by the Director of Health. In fact this committee is not functional. No any terms of reference define the Director role as the committee chair. In addition, frequent turn over at ministry level has impeded adequate functioning of the committee. At the time of the needs assessment exercise, no director was in charge. In facts, the CCM which is playing the role of the malaria coordinating committee as CCM members are the same than the RBM committee. Globally, membership and attendance reflects the constellation of malaria control partners in the country. All partners implement their programs based on the MSP08-15 and are in the same framework and have supported adherence to national policies and strategies. An overall malaria control work plan that includes the activities of RBM partners in country is also

As part of the CCM, the national malaria coordinating committee influence, to some extent, resource allocation and prioritization of activities by Ministry of Health and partners. This has been for example in the GFATM PR selection.

There are coordinated mechanisms that allow RBP partners to track progress. These include quarterly partners meeting, annual and quarterly reports to the ministry and the CCM, Quarterly and annual reports. At ministry level is the Senior Management Team chaired by the Minister which is an integrated and comprehensive coordination mechanism. Field visits are annually also organized with partners and permit to have direct sight on program implementation.

Coordination with private sector doesn't exist. This constitute a important gap as private plays a role

## Sub national level coordinating mechanisms

RHT play the key role in coordination at sub national level. They are supposed to implement central decisions. However, they are not specifically focused on malaria and integrate all priority health issues in their scope. Beyond the health system is the Technical Advisory Committee including all development sectors at regional level (agriculture, Health, education etc...). The regional Commissioner is the focal point and chair regional Health committee.

# b) Gaps and requirements to allow NMCP to perform its role

### i. Key bottlenecks and challenges

- 1 Weak malaria coordination committee /task force at all levels
- 2 Inadequate skilled manpower at all levels
- 3 High attrition rate of health staff
- 4 Inadequate financial incentives for health workers at facility level
- 5 Lack of trained parasitologists and Epidemiologist at NMCP level
- 6 Inadequate spraying equipment and storage facilities at regional level
- 7 Lack of an Entomological lab and Insectariums

#### ii. Proposed solutions

- 1 Strengthen malaria coordination at all levels
- 2 Build capacity of staff
- 3 Implement strategies to increase staff retention
- 4 Provide incentives for health workers at facility level
- 5 Train parasitologists and Epidemiologist at NMCP level
- 6 Provide spraying equipment and storage facilities at regional level
- 7 Establish an Entomological lab and Insectariums

#### iii.Technical assistance needed

- 1. There is need to improve coordination between partners and this can only happen if a strong and functional partnership exists.
- 2. TA would therefore be needed to strength coordination and partnership at all levels

Table 21 – RBM partners, roles and coverage/implementation capacity and support needs

Partner	Role	Coverage/implemen tation capacity	Support needs
Government	Policy	National	
WHO	Technical support	National	
UNICEF	Technical support	National	
UNDP	Technical support	National	
ADB	Technical support	National	
Gambia Red Cross Society	Social mobilization	National	
Banjul Breweries	ITNs		
MRC	Research	National	
CIAM	Training and Research, Monitoring and Evaluation	National	
CRS	BCC, ITNs	National	
GAFNA	BCC, Nutrition, ITNs		
CCF	Case management, ITNs, BCC		
DHTs	Coordination, supervision and implementation of activities		
Republic of China Embassy	Financial support	National	
TAYAM	BCC and ITNs		
NYAAMA	BCC and ITNs		
TARUD	BCC and ITNs		
Nova Scotia Gambia Association	BCC		
Reproductive Child Health Unit	Coordination of IPT Implementation	National	
Health Education Unit	Coordination of IEC/BCC activities	National	
IMCI Unit	Support IMCI implementation	National	
National Pharmaceutical Services	Coordinate drug procurement and supplies management	National	
Association of Health Journalist	BCC	National	
World Evangelical Crusade (WEC)	Clinical		
Youth Foundation for Health	BCC, ITNs		
Bakoteh Red Cross home Link	BCC		
University of the Gambia	Research	National	
National Health Laboratory Services	Laboratory diagnosis	National	
UNFPA	Technical support	National	

Figure. Partnership coordination mechanism

Schematic diagram showing how coordination mechanism links to NMCP, other coordinating mechanisms, and senior MoH personnel

# 7.2 Supply management

# a) Situation analysis

#### 1) Procurement

Procurement is regulated at national level through the Gambia Public Procurement Agency GPPA This latter is responsible of all procurement plan for fiscal year. NNCP procurement processes obey to these regulations. The system for government procurements consist off all procurement pass trough GPPA there are threshold limits but all procurement must follow rules

It has the capacity to forecast with partners technical.

As the regulatory authority, the GPPA is the responsible for licensure of supplies. However no quality control mechanism is in place as there is no capacity to carry out quality control and assurance tasks.

### 2) Storage

The National Medical Stores at national level have sufficient storage capacity and conditions to accommodate large numbers of stocks. The storage condition and capacity of the some health facilities are inadequate.

There are 6 health Divisions in the country among which four have medical stores with limited capacity, whiles there is no medical store in the fifth division.

At central level adequate cold chain facilities are available. Although there are occasional power outages, there is a stand by generator in place as backup. At divisional and basic facility level cold chain facilities are not adequate due to irregular supply of electricity and lack of stand by generators. Where generators are available, fuel supply is inadequate to effectively maintain the cold chain.

### 3) Transport/Distribution

The distribution goes from Central Medical Stores to divisional stores, hospitals, health centers, community clinics and village Health posts. The average distribution schedule to all health facilities is bi-monthly and quarterly for divisional stores. There are provisions for supplementary supplies as and when required. Buffer stocks are also established in all divisional stores.

There is limited capacity for the distribution of drugs and other supplies at all levels. There are no vehicles for the distribution of supplies from the division medical sores to the health facilities and health facilities resort to using ambulances, and occasionally DHT utility vehicles for delivery. Lack of vehicles at the divisional level therefore contributes to delays in delivery of supplies and reported stock-outs at health facilities and limited monitoring and supervision of health facilities.

### 4) Leakage

Leakages are addressed by the tally cards and requisition books in place to ensure proper management of stock and are used as tools for monitoring to minimize pilferage. Theft is also prevented by escorting delivery trucks from central to divisional stores where items are received, verified and signed for by the store keepers/ recipients. All the DHT facilities, where the divisional stores are located are secured

Some net specifications are described in the LLIN distribution guidelines developed by CRS. Those specifications are related to the consignment shipped to the country at a given time and seem not to have a policy value.

### 5) Monitoring and Evaluation

There is no system in place for the monitoring and reporting of adverse drug reactions. However plans are in place to establish a pharmaco-vigilance system to address the above. There is a system in place to monitor ant-malarial drug resistance.

### 6) Logistics Management Information System

The inventory management system allows collection of data on management of stock (receipt, issue, use) at each distribution and treatment site, but the data collected is currently not computerized. The process of computerization of the CMS and the divisional stores, which is a priority activity, is in progress as mentioned in earlier section.

There are systems and tools to monitor supplies in order to reduce loss and wastage through the following mechanisms.

### 7) Supply

NMCP and the Supply Division work closely during all the procurement and distribution process. But there are the constraints/obstacles to timely delivery in the field such as lack of a formalized distribution schedule, poor road network, lack of appropriate & adequate transport, lack of monitoring plan and limited human resource capacity.

Limited human resource capacity is also identified as a challenge in the distribution of supplies. There is a need for the training of existing staff in store and stock management.

### b) Gaps and requirements to allow NMCP to perform its role

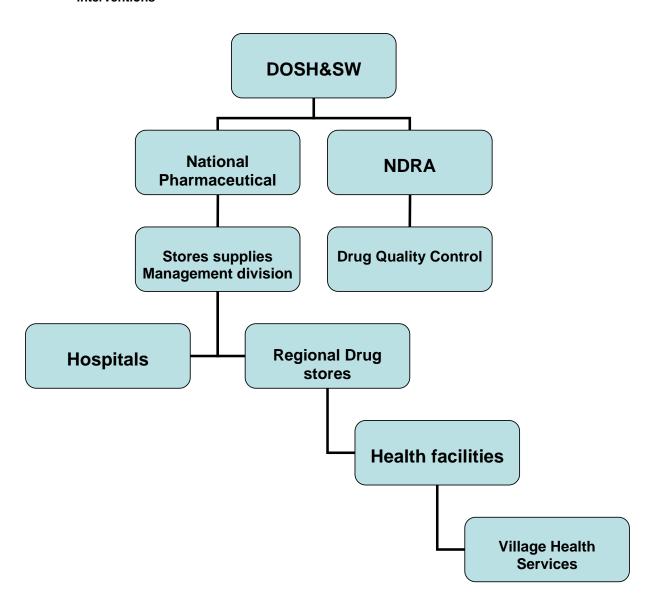
#### i. Key bottlenecks and challenges

- 1 No formal training on store management for the store keepers
- 2 Inadequate storage facility at regional and facility levels
- 3 Inadequate transport and fuel for distribution of drugs and other supplies
- 4 No database for tracking of commodities such as nets, insecticides and equipment at facility and regional level
- 5 Inadequate funding for the procurement of malaria commodities from government
- 6 Weak inventory control at regional and facility level
- 7 Inadequate staff to cope with work load

#### ii. Proposed solutions

- 8 Train staff on store management
- 9 Provide adequate storage facility at regional and facility levels
- 10 Provide adequate transport and fuel for distribution of drugs and other supplies
- 11 Develop and train data personnel for tracking of commodities such as nets, insecticides and equipment at facility and regional level
- 12 Provide funding for the procurement of malaria commodities from government
- 13 Improve the inventory control system at regional and facility level
- 14 Hire skilled staff for store management

Figures. Schematic diagrams showing supply management systems for core interventions



# 7.3 Health Systems Strengthening

# a) Situation analysis

### 1) The public sector health system

### 2) Stewardship

At national level, the capacity of the NMCP has significantly increased in terms of human resources, equipments and the availability of systems.

### 3) Information and knowledge

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. At NMCP level, the entire M&E unit is supported by GFATM so need fro GOG to recruit personnel to ensure sustainability

Despite large efforts in equipments, there his still a need for computers at regional level as in some place data transfers is still manual form hard copies. There is one main server at DPI and GFATM is providing a new on to replace the broken one. Approaches being used to strengthen the routine HMIS system include providing DPI with vehicles Server computers, Funding the supervisions activities and DPI harmonization of reporting tool. There are still gaps at health center level due to high human resource attrition and lack of equipments

There is regular feedback of information down to the different levels. Quarterly partners meetings with regional participation .The region are supposed to feed back to the health facilities during monitoring

### 4) Provision of Services

NMCP is in partnership with other service delivery programs such as Reproductive Child Health

Unit, Health Education Unit and IMCI Unit, This collaboration is functioning well under Director of Health authority.

### 5) Technologies and infrastructure

Laboratory infrastructure and management is not sufficient to cope with increased activity. Laboratory infrastructure is limited to major health center and hospital only 5% have labs so need to be extended. Quality assurance schemes have been put in place for laboratory but not for drug

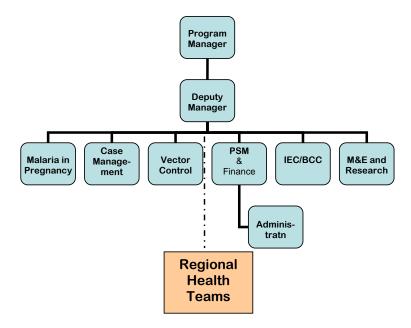
Two Cuban technical assistants are in place but there is still a gap in qualified human resource for microscopy.

The supply distribution system is no adequate for the needs of the NMCP. As drugs are in country, they are transported to the regional store. But no system is in place to push the drug to the facilities. The issue of time and delay in drug procurement is also a problem. This can be improved by:

- Regulation of procurement, and level of approval;
- Lighting of WHO procurement procedure;
- Early forecasting and notification to manufacturer.

### 6) Human resources: NMCP and national level issues

The NMCP have an organ gram



All position are currently filled and the NMCP organ gram reflect the human resource needs required to scale up malaria control. There is no vacant position but the need for an epidemiologist has been expressed to reinforce the M&E unit. This needed position is not funded yet.

It is possible to recruit properly qualified and experienced staff to fill key positions within NMCP.

All staff are motivated. Monthly allowances are provided to all government staffs while some other staffs are full time recruited by GFATAM. For implementation, perdiem level is agreed with GFATM and is considered adequate.

Key malaria control partners have sufficient human resource capacity to scale up their efforts

International NGO's have high qualified personnel's while local NGO's have less capacities but are building their capacity and linking with smaller NGO. They address capacity gaps through training and recruitment.

Professional development is a focus issue within NMCP as most of key personals have performed master training in their respective technical area. In addition GFATM support short courses opportunities but not long training.

There is HR development plan exists The DPI has produced a Master HR policy the objective of which is to focus the entire HRH process including the planning, training and utilization of HRH to the requirements of the Gambian community, in particular the poor and vulnerable groups, in line with the National Health Policy.

# b) Gaps and requirements to strengthen the health system

### i. Key bottlenecks and challenges

- 1 Inadequate laboratory services
- 2 Inadequate human resources in the health system
- 3 Limited feedback from central level to the periphery
- 4 Limited capacity at facility level for data analysis
- 5 Lack of knowledge on staffing norms
- 6 Inadequate HMIS system in place at all health facilities
- 7 Unsuitable design to allow expansion of the facilities to include other services

### ii. Proposed solutions

- 8 Expand laboratory services to increase access
- 9 Increase human resources in the health system
- 10 Strengthen feedback from central level to the periphery
- 11 Build capacity of health staff for data analysis
- 12 Sensitize health workers on staffing norms
- 13 Strengthen HMIS at all levels
- 14 Comply with standards and norms for constructing set by government in future

# Figures. NMCP and district level organ grams detailing staffing norms, actual staffing levels, and recommendations (if required) for additional positions

Table 22 - Actual staffing, staffing norms and requirements

Health Region	Doctors	Clinical officers	Registered Nurses	Nursing assistants	Env. Health Techs	Pharma- cists	Lab Techs	Comm'ty Health Workers
National								
					51			
Actual	30		763			43	30	
					55			
Norm	151		938			62	76	
Gap	121	0	175	0	4	19	46	0

<sup>\*</sup> Relevant sub national levels should be inserted into the table in place of "sub national 1", "sub national 2" etc

<sup>\*\*</sup> It may be relevant to insert a column for population if norms are set as ratios. Giving norms and gap at total level rather than sub-divided national is sufficient if data are not available.

Table 23 - Public Health facilities and infrastructure

Level/Type		Hospit	al	-	alth Fa level c		-1	Ith Fac		Fa lev	lealth acility el thr	-	se	utrea	
	Public	Civil society	Private for profit	Public	Civil society	Private for profit	Public	Civil society	Private for profit	Public	Civil society	Private for profit	Public	Civil society	Private for profit
Actual	3	7		6	2		12	8		16	13				
Norm	6			8			112								
Gap	3	-7	0	2	-2	0	100	-8	0	-16	-13	0	0	0	0

# **ANNEXES**

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		<del> </del>

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Fatou I Sanyang

Musa Ceesay Fatou Bah

Ebrima M Jallow Nicola Njai

Manjally Ndow Ramatoulie Bojang

Babucarr Sarr Lama Bah

Sutering Jobe (TC) Naba Kanyi (TBA)

Seedy Darbo (VHW)

Fatou Kinteh (Antenatal Mother)

Fanding Darbo (Imam)

Alhagie Abdoulie Sallah (Imam)

Omar Sey (VDC chairman)

Adama Jeng( Drama group president) Juldeh Jallow (TBA)

Haddy Sallah (TBA)

Addoulie Sallah (youth member)

Ebrima Jallow (VHW)

Alhagie Jumba Jobe (Alkaloo)

Saffie Tunkara (TBA)

Ebrima Jasseh (Youth Leader)

Haddy Kebbeh (health committee member)

Basiru Cham (Youth Rep.)

Aji fatou Jobe (health committee member)

Isha Njai (Drama group President)

Janha Mbowe(health committee member)

Haddy Lowe (TBA)

Alieu Gaye (health committee member)

Sarjo Jallow (EN), Babucar Jallow (EN),

Binta Cham (NA), Anna A Jatta (CHN), Ebrima Ceesay (Pharmacy Assistant), Joko

Fatou Sanyang (EN)

Jankoba Jabbie (RPHO), Birom Bah

(RPHN), Sanjally Trawally (SAO), Michael

Mendy (RVCO)

Aja Abie Khan, Kanifing, Kanifing

Municipality

Ebrima Jarjue, CRS, Fajara, Kanifing

Municipality

Alieu Sonko, RNM,OIC,Brikama H/C

Soma Health Centre (DoSH) (LRR)Public

Health Facility (DoSH)

Bureng Health Centre Public Health Facility

Community, Bureng village (LRR)

Community, Kerr Amadou Village (NBRW)

Community, Kerr Jarga Village

Essau Health Center (NBRW)

Regional Health Team, LRR

Regional Health Team Western

Catholic Relief Service (NGO)

DOSH.Brikama Health Centre

Mr. Jatta, Hon. Abdou Jarjue,

Kamma Jarjue TBA, Lamin Darboe, VDC Rep., Lamin Mimi Fofana, Alkalo, Yama

Touray, TC.

Mayork village Foni Bondali District WR

Aja Mai ceesay TBA, Alkali, Fatou Fatty,

Dusu TCs' VDC chair, VHWs

Chief Executive, principal Nursing Office,

Nurse Midwife

Marakissa Village

Pirang Village

Sibanor Village Foni Bintang District WR Isatou Ceesay Record keeper

Musukebba Ceewsay Drama group

Bampha Ceesay Alkalo Mariatou sanneh TBA

Sibanor Village Foni Bintang District WR Mariatou Dampha Nurse Assistant

Sainabou Drammeh Nurse Assistant Ousman Kambi Public health officer

Kaddy Manjang Assistant

Head Quarter Action Aid The Gambia

DOSH Quadrangle

Dr. Mamo Jawla WHO

Almamo Barrow Programme Manager

Ismaila Njie Chief Nursing Officer

Disease Control and Prevention

The Ambassador
Lai Gwo-dong
Taiwanese Embassy
Tashawna Bethea

Cuban Embassy
Taiwanese Embassy
American Embassy

Tashawna Bethea American Embassy Makew Janneh Kaira & Pa Babou NPS& LAB. Services

Edele Thebaud Deputy Country Representative Centre for Innovation Against Malaria Dr. Ayo Palmer, Director

(CIAM)
Medical Research Council (MRC)
Mr. Sering Jawo Ceesay,

University of The Gambia (UTG) Professor Ousman Nyan, Acting Vice

Chancellor

Gambia Bureau of Statistics (GBoS) Mr. Alieu Sarr, Deputy Statistician General,

**GBoS** 

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