MINISTRY OF HEALTH

2008 National Malaria Control Action Plan

Actions for Scale-up for Impact on Malaria in Zambia

In support of the
National Malaria Strategic Plan
2006-2010

Acronyms

ACT	Artemisinin Combination Therapy
BCC	Behaviour Change Communication
BHCP	Basic Health Care Package
CBMPCP	Community Based Malaria Prevention and Control Programme
CBO	Community Based Organisation
CDC	Centers for Disease Control
CHAZ	Churches Health Association of Zambia
CHW	Community Health Worker
CRAIDS	Community Response to HIV/AIDS
CRS	Catholic Relief Services
CSO	Central Statistical Office
DFID	Department for International Development
DHMTs	District Health Management Teams
DHO	District Health Office
DMMU	Disaster Mitigation Management Unit
ECZ	Environmental Council of Zambia
FAMS	Finance Accounts Management Systems
FANC	Focused Antenatal Care
FP	Family Planning
GFATM	Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria
GRZ	Government of the Republic of Zambia
HCP	Health Communication Partnership
HCs	Health Centres
HMIS	Health Management Information System
HMM	Home Management of Malaria
HSSP	Health Services and System Programme
IEC	Information, Education and Communication
IPT	Intermittent Preventive Therapy
IPTp	Intermittent Preventive Treatment during Pregnancy
IRS	Indoor Residual House Spraying
ITNs	Insecticide Treated Nets
IVC	Integrated Vector Management
IVCC	Innovative Vector Control Consortium
JICA	Japanese International Cooperation Agency
JSI	John Snow Incorporation
KCM	Konkola Copper Mines
LLINS	Long-lasting Insecticidal Nets
M & E	Monitoring and Evaluation
MA	Malaria Agents
MACEPA	Malaria Control and Evaluation Partnership in Africa
MC	Malaria Consortium
MDGs	Millennium Development Goals
MDSS	Malaria Decision Support System
MIP	Malaria in Pregnancy
MIS	Malaria Information System
MoH	Ministry of Health
MSL	Medical Stores Limited
NGO	Non-governmental Organisation
NHC	Neighborhood Health Committee
NHSP	National Health Strategic Plan

NMCC	National Malaria Control Centre
NMCP	National Malaria Control Programme
NMSP	National Malaria Strategic Plan
ORTWG	Operational Research Technical Working Group
PECM	Prompt and Effective Case Management
PHD	Provincial Health Director
PHLWAS	People Living with HIV/AIDS
PHO	Provincial Health Office
PMI	President's Malaria Initiative
PMTCT HIV/AIDS	Prevention of Mother to Child Transmission of HIV/AIDS
PRA	Pharmacy Regulatory Authority
PSI	Population Service International
RAPIDS	Reaching HIV/AIDS Affected People with Integrated Development and Support
RBM	Roll Back Malaria
RDT	Rapid Diagnosis Test
RTI	Research Triangle Institute
SADC	Southern Africa Development Community
SFH	Society for Family Health
SHP	School Health Programme
TBA	Traditional Birth Attendant
TDRC	Tropical Diseases Research Centre
THAPAZ	Traditional Healers Association of Zambia
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UNZA	University of Zambia
USAID	United States Agency for International Development
UTH	University Teaching Hospital
VCT	Voluntary Counselling and Testing
WB	World Bank
WHO	World Health Organization
ZABCOM	Zambia Business Coalition Against Malaria
ZANARA	Zambia National Response to HIV/AIDS
ZANIS	Zambia News and Information Services
ZMF	Zambia Malaria Foundation
ZNBC	Zambia National Broadcasting Corporation

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Executive Summary

Malaria is a major public health problem in Zambia and is endemic in all nine provinces. It is the leading cause of morbidity and second leading cause of mortality. The burden of disease is highest among children under five years of age, among pregnant women, and among the poor and vulnerable in society. The high morbidity levels have contributed to decreased productivity through absenteeism and lowered output. In 2006, 4,978,458 malaria cases were reported, with an incidence of 412 per 1,000 population. A remarkable reduction was achieved in 2007 with 4,442,518 reported malaria cases, with an incidence of 358 per 1,000 population (Health Management Information System [HMIS]). Zambia is thus poised to make dramatic progress in reducing the health and economic burden attributable to malaria.

Zambia's vision is to have a malaria-free Zambia; every Zambian has the right to access effective malaria preventive services and curative care delivered as close to the household as possible. The progress to date in malaria programming in Zambia has built the confidence of many donors and multilateral, bilateral and implementing partners to commit to supporting malaria programme scale-up. There has been an enormous increase in finances, malaria commodities, and technical support for the interventions since 2000. This strong partnership will continue to be strengthened.

The following main interventions and priority activities have been set in the 2008 National Malaria Control Programme Action Plan:

- Scaling up transmission reduction using insecticide-treated bednets (ITNs) to cover the rest of the country, an expanded and targeted application of indoor residual house spraying (IRS) in 36 districts, and other integrated vector control interventions.
- Providing prompt and effective case management (PECM) with improved access to malaria commodities; particularly, improved supply and availability of the highly effective drug Coartem® coupled with efforts to roll out home management of malaria and improved private sector access to affordable medicines.
- Providing a package of interventions to reduce the burden of malaria in pregnancy, and collaborating very closely with the Reproductive, Newborn and Child Health and HIV/AIDS (prevention of mother to child transmission [PMTCT] and paediatric HIV) units.
- Supporting programmes that include operations research, year-round information, education and communication/behaviour change communication, programme management and monitoring and evaluation. A nationally representative malaria indicator survey will be conducted beginning in April 2008. One of the priorities under programme management is to enhance performance and mobilize adequate resources, improving Global Fund absorptive capacity in order to improve the country's Global Fund ranking.
- Strengthening capacity and enhanced performance for *scale-up for impact* (SUFI) implementation through the development of a technically sound, operationally feasible SUFI business plan. A needs assessment and a comprehensive programmatic review, as well as a mid-term review of the current National Malaria Strategic Plan will be conducted.
- Addressing the main challenges: ineffective logistics management systems up to health facility; low confidence in use of rapid diagnostic tests (RDTs); weak quality assurance systems; inadequate storage, transport, and human resources; and low ITN utilization.

The overall total 2008 malaria prevention and control budget is estimated at US$59,816,211.

1.0 Introduction

Zambia covers 752,612 square kilometres and is divided into nine provinces and 72 districts. It has an estimated population of 12 million. Malaria is a major public health problem in Zambia. It is endemic in all the nine provinces, and is the leading cause of morbidity and second leading cause of mortality. Trend analysis shows that malaria incidence and death rates tripled over the past three decades. The burden of disease has been highest among children under five years of age (up to 40% of the overall infant mortality rates), pregnant women (up to 20% of the overall maternal mortality rate), and among the poor and vulnerable in society. Nationally, 17% of children below five years of age were positive for malaria parasitemia, with 13% suffering from severe anaemia (Malaria Indicator Survey 2006). In addition to its direct health impact, malaria causes a severe social and economic burden on communities, especially on the poorest and most vulnerable individuals and households who are also trying to cope with the HIV/AIDS pandemic. The high morbidity levels have contributed to decreased productivity through absenteeism and lowered output. In 2006, an incidence of 412 per 1,000 population (4,978,458 cases) was reported through the Health Management Information System (HMIS), making malaria one of the top ten diseases, accounting for 45% of hospitalisations and outpatient department visits with a reported 6,484 institutional deaths per year (Zambia. Ministry of Health, 2006a). A remarkable reduction in malaria incidence was achieved in 2007, with 4,442,518 reported malaria cases and an incidence of 358 per 1,000 population (HMIS, see Figure 1).

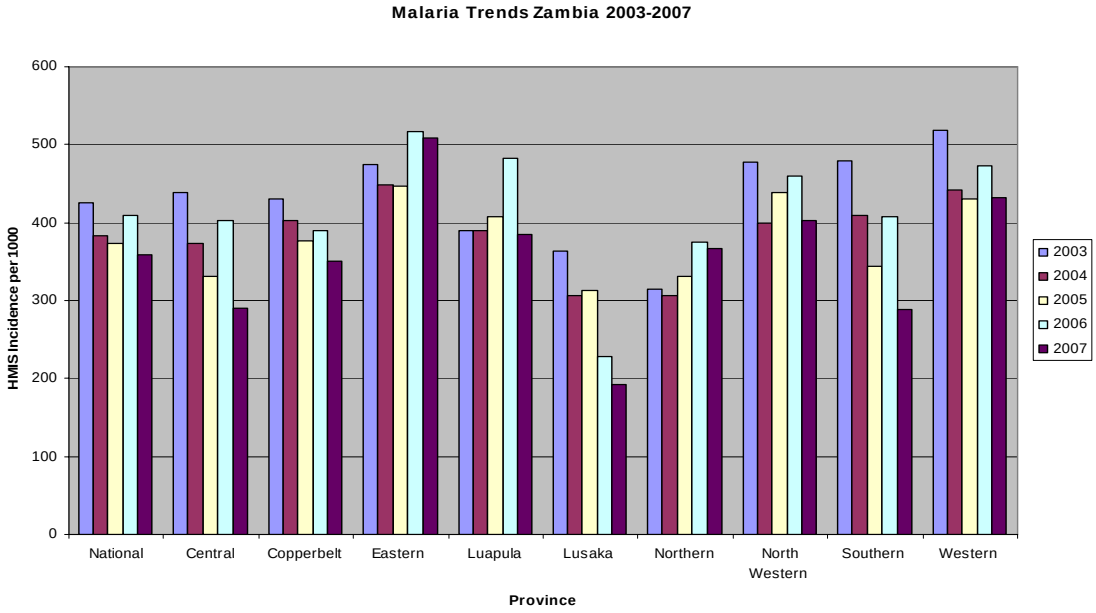
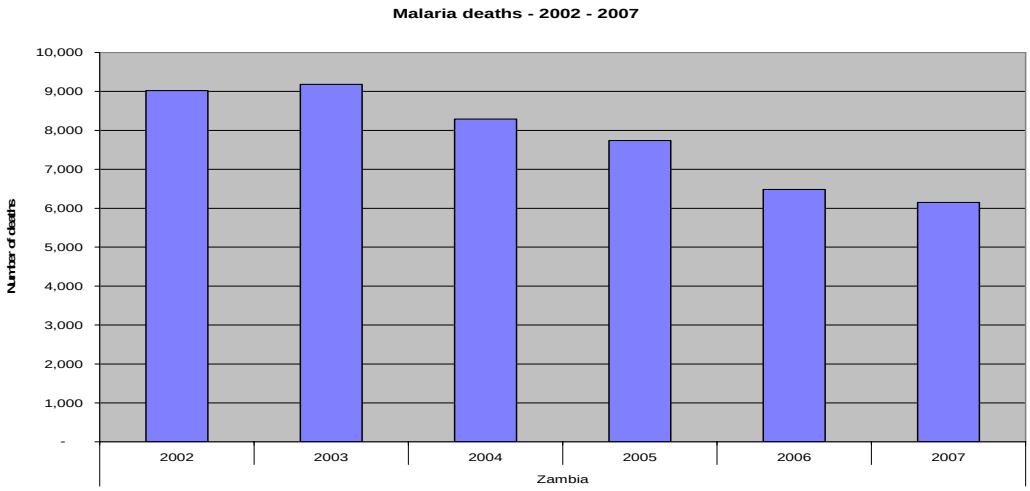


Figure 1. Most provinces have had a downward trend in malaria incidence from 2003, but incidence increased in 2006 and then declined in 2007 to figures less than in 2005, apart from Eastern and Northern Provinces where the incidence remained higher.



Source (HMIS)

Figure 2. Nationally, the number of deaths, hence the mortality rate per 1,000 population, due to malaria has continued to decrease from 2003 to 2007.

In the Fifth National Development Plan (2006-2010), tackling health concerns such as malaria is a major social objective (Zambia. Ministry of Finance and National Planning, 2006). The vision is to have a malaria-free Zambia, and Government believes that every Zambian has the right to access effective malaria preventive services and curative care delivered as close to the household as possible (Zambia. Ministry of Health, 2006a). Institutional structures and strategies for malaria interventions have been put in place by Government in collaboration with stakeholders and donors. This involves the use of an integrated approach of proven malaria control interventions. Malaria control is addressed not as a separate, vertical, disease-specific intervention, but as part of holistic health services at all levels of care, and as part of a larger community development effort. In this vein, malaria control has been prioritized in the Basic Health Care Package (BHCP), National Health Strategic Plan (NHSP) and the National Malaria Strategic Plans (NMSPs). Malaria control is guided by the National Malaria Control Programme (NMCP) under the leadership of the National Malaria Control Centre (NMCC).

The progress to date in malaria programming in Zambia has built the confidence of many donors to commit to supporting malaria programme scale-up. The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM), several multilateral and bilateral partners such as United States Agency for International Development (USAID), World Health Organization (WHO), United Nations Children's Fund (UNICEF), the World Bank, the Bill & Melinda Gates Foundation (through the Malaria Control and Evaluation Partnership in Africa – MACEPA – a programme at PATH), Japanese International Cooperation Agency (JICA), and most recently the US President's Malaria Initiative (PMI) have agreed to partner with the NMCP and the Zambia Roll Back Malaria (RBM) partnership to embark on a scaling up intervention for impact. There has also been an enormous increase in finances, malaria commodities, and technical support for the malaria control interventions between 2000 and 2007.

Strategic initiatives to control malaria have been implemented in specified time frames closely coinciding with health sector planning cycles. The theme of the 2006-2010 NHSP is "Moving towards the Millennium Development Goals (MDGs)". Malaria features prominently in the MDGs, which were established to focus international efforts on addressing critical issues related to health, poverty, and equity. In the recent past, interventions were guided by the 2000-2005 Malaria Strategic Plan and currently by the 2006-2010 National Malaria Strategic Plan. These were based on the NHSP, Poverty Reduction Strategies, and the Fifth National Development Plan (2006-2010).

The goals of the 2006-2010 NMSP are:

- To reduce malaria incidence by 75% and to significantly reduce deaths due to malaria by the end of 2010.
- Through the attainment of a 75% reduction, malaria control will ultimately contribute to the reduction of all-cause mortality by 20% in children under five.
- Malaria control will not only improve the main health prognostic indicators, but also provide economic payoffs at household and national levels.

Zambia is poised to make dramatic progress in reducing the health and economic burden attributable to malaria. There is a highly effective drug policy based on the deployment of a more effective drug, the rollout of a package of interventions to reduce the burden of malaria in pregnancy, and scale-up of transmission reduction through integrated vector control, particularly, use of insecticide-treated bednets (ITNs) and an expanded and targeted application of indoor residual house spraying (IRS). Based epidemiologically on similar settings in Africa, scaling up coverage of personal and community protection interventions (ITNs and IRS) is expected to have rapid and significant impact on malaria illness, deaths, and health care cost: coverage in the range of 80% of vulnerable households will result in greater than 50% reduction in malaria illnesses and malaria drug use as well as healthcare costs.

Sustainable, evidence-informed efforts are required to control the malaria disease burden and in the long term to provide a basis for better health outcomes. A key aspect of implementing the various interventions is the timely production and documentation of data and information of malaria intervention outcomes and service provision which remained a challenge in 2006 and 2007. The Malaria Information System (MIS) has since been devised with the revision of the HMIS.

1.1 Major achievements recorded in 2007

- In 2007 alone, 3,416,348 long-lasting ITNs (LLINs) were distributed, compared to the overall total distribution of just over 4 million nets from 2003 through 2006, through the various channels that include the Community-Based Malaria Prevention and Control Programme (CBMPCP), the School Health Program (SHP), Malaria in Pregnancy (MIP), and the mass distribution campaign. Mass distribution was the main channel deployed in 2007.
- IRS in the eligible districts was conducted with increasing coverage; in 2005/2006, coverage was 83.5%, in 2006/2007 it was 87.3%, and with timely and well-coordinated implementation, coverage increased to 93% in 2007.
- Eleven IRS districts were geo-coded, which enhanced planning and quantification.
- The procurement constraints initially experienced in 2005-2006 following the nationwide rollout of Coartem® in 2004, have now been resolved. Since 2007, the country has had adequate supplies of artemisinin-based combination therapies (ACTs) at the central Medical Stores.
- There has been development of a communication strategy and increased stakeholder involvement such as local leadership (chiefs) and the media.
- Priority operations research was identified and conducted.

1.2 Challenges

The major challenges faced in scaling up malaria control interventions in 2007 were the following:

- Inconsistent supplies to districts and health facilities; inability to ensure that the available ACTs at Medical Stores Limited (MSL) were delivered on time in correct quantities to the districts and health facilities; overcoming stock outs was difficult in the absence of a more effective logistics management system.
- Limited availability of Sulphadoxine pyremethamine (SP) for the intermittent preventive treatment during pregnancy (IPTp) programme.
- Lack of adequate quantity and quality of human resources for effective programme implementation.
- Low use and acceptance of rapid diagnosis tests (RDTs) in most districts despite adequate stocks at the MSL and orientation of staff.
- Weak quality assurance mechanism for RDTs.

The 2008 National Malaria Control Action Plan is based on the 2006-2010 Zambia National Malaria Strategic Plan and guided by lessons learnt in implementation of previous annual plans.

1.3 Main objectives in 2008

- To ensure that at least 80% of people sleep under ITNs in every district by December 2008.
- At least 80% of pregnant women have access to the package of interventions to reduce the burden of malaria in pregnancy by December 2008. The package of interventions will include three courses of IPT, an ITN, and anaemia reduction.
- At least 85% of people sleep in sprayed structures in eligible areas of the 36 selected districts by December 2008, an upward revision from the 15 initially planned districts in the 2006-2010 NMSP.
- At least 80% of malaria patients in all districts are receiving prompt and effective treatment according to the current drug policy within 24 hours of onset of symptoms by December 2008.

The priority activities in 2008, particularly at a time when there is a global call for malaria elimination, include strengthening the capacity and enhanced performance for *scale-up for impact* (SUFI) through conducting a comprehensive programmatic and strategic plan review, needs assessment, and development of a technically sound, operationally feasible SUFI business plan, mobilizing adequate resources and improving performance and ranking of already existing funds. In addition, the second nationally representative malaria indicator survey will be conducted, building on the first one conducted in 2006. There will be efforts to strengthen partnerships as well as improve collaboration with other units within the Directorate of Public Health and Research (Reproductive Health, Child Health, Paediatric HIV, PMTCT and Health Promotion Units) and with other directorates in the Ministry of Health (MoH) such Policy and Planning, Technical Support Services, and Clinical Care and Diagnostics.

2.0 Insecticide Treated Nets (ITNs)

2.1 Introduction

The year 2007 marked a significant scale-up of ITN activities in the country. Approximately three million ITNs were distributed, achieving the 80% coverage target set in three provinces. The ITNs were distributed in line with the 2006-2010 NMSP through the various strategies by different partners. Six provinces have so far been covered, and in 2008 we shall aim at scaling up coverage to include the remaining three provinces, namely Copperbelt, Lusaka, and Central. A number of lessons were learnt during the ITN distribution which will be used to ensure that distribution to the rest of the country is done effectively and efficiently.

2.2 Review of 2007 Action Plan

The following objectives were set for 2007:

- To improve communication among NMCC and all ITN partner organizations.
- To improve the collection, compilation, and dissemination of ITN procurement, distribution and utilisation data.
- To achieve 60% ITN utilisation through improved information, education and communication/ behaviour change communication (IEC/BCC) activities.

2.2.1 Actions and progress in 2007

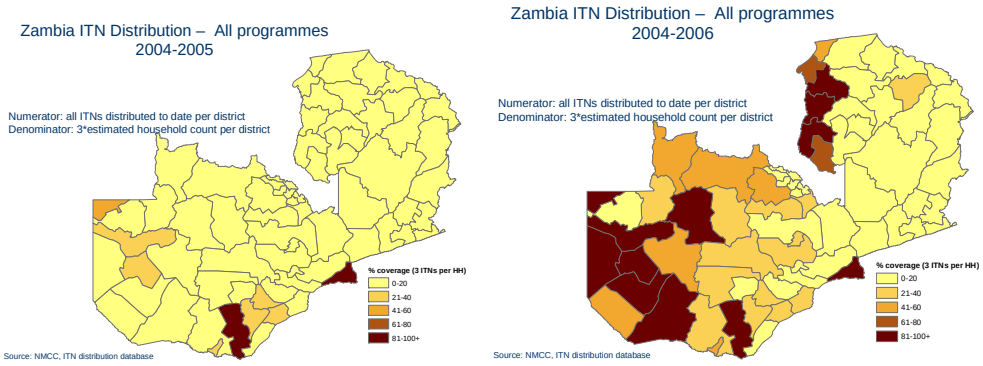
Over three (3) million ITNs were distributed in 2007 in line with the 2006-2010 NMSP through the various strategies by different partners. Six provinces have so far been covered under the mass free distribution through a range of main sources (Table 1).

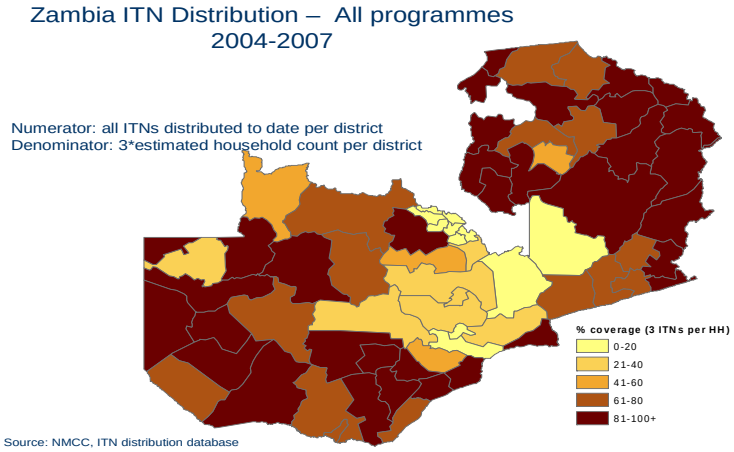
Table 1: Main Sources of ITNs

Source	**Quantity of Nets Procured**
GFATM	1,082,000
World Bank	1,080,000
PMI/PEPFAR/RAPIDS	505,000
Japanese Government (JICA)	392,500
USAID/SFH	322,348
UNICEF	16, 500
MACEPA	18, 000
Total	**3,416,348**

The World Bank initially provided 80,000 ITNs and later an additional 1 million; JICA initially supplied 26,500 ITNs and then an additional 366,000; the GFATM initially provided 337,000 ITNs and then 285,000 and 460,000 additionally.

ITN Distribution from 2004 to 2007





2.2.2 Lessons learnt

During the net distribution, a number of lessons were learnt:

- The direct distribution of ITNs to the districts by suppliers was cost effective, ensuring that the ITNs reached the districts on time. The funds saved supported the district distribution to health facilities and up to the household. All contracts to supply and deliver ITNs, therefore, should indicate direct delivery to district level.
- The Central Statistical Office (CSO) figures are the official population statistics. However, district population based on head counts differed from the CSO population figures, resulting in under-estimation of the ITNs. It is necessary to align these figures accordingly.
- The objective of ITN distribution stipulated in the NMSP of reaching at least 80% coverage proved difficult at actual implementation. During planning, the ITNs were estimated at 80%, thus an under-estimate of the other 20% or more of the population. The aim now shall be to achieve 100% coverage in all targeted areas to ensure all households are covered.
- Coverage alone does not equate to correct utilization; sensitization must be strengthened, focusing on the most effective tools such as community radio stations, church meetings, and drama in order to increase utilization rates and reduce abuse.

- It was noted that the use of local leadership and Neighborhood Health Committees (NHCs) is cardinal for successful distribution and programme implementation.

2.2.3 Challenges

- Storage facilities and warehousing were inadequate; hence, priority must be set to ensure that these facilities are refurbished or constructed.
- Transport has been a major challenge for most District Health Management Teams (DHMTs), leading to high expenditure on hire of private vehicles to transport ITNs to health facilities.
- The decision by central level to use CSO figures disadvantaged some households, as they were either left out in the distribution exercise or given fewer ITNs than required.

2.3 ITN programme objectives for 2008

- Ensure 100% of households in all eligible areas have at least three ITNs with at least 85% utilization rates.
- Ensure at least 90% of nets within communities are efficacious.
- Strengthen coordination at central, provincial, district and health centre as well as community levels.
- Strengthen the collection, compilation and dissemination of ITN data.

2.4 2008 actions

Recommendations derived from the lessons learnt guided the decision to take the following actions in 2008:

- Finalize and disseminate National ITN Guidelines.
- Mobilize resources to procure LLINs for the three remaining provinces and fill gaps in all the other districts to achieve 100% coverage in line with the revised objective.
- Establish sustainability programmes through multiple distribution channels:
  - Subsidized LLINs, EPI, MIP, and equity distribution through Voluntary Counselling and Testing (VCT) centres.
  - Community Malaria Booster Response and /or other community mechanisms.
  - Expand and strengthen employee based schemes (Zambia Business Coalition Against Malaria [ZABCOM]).
  - Commercial distribution (not subsidized).
- Continue re-treatment exercise to reach target of at least 800,000 ITNs.
- Establish functioning ITN technical working groups in all districts, which should include local partners to strengthen coordination and improve implementation.
- Replace old nets with new LLINs.
- Strengthen support by local leaders and NHCs.
- Procure ITNs for Epidemic Preparedness.
- Strengthen IEC/BCC at all levels.

2.5 Support needs for District Action Plans

DHMTs play a cardinal role to ensure increased coverage and utilization of ITNs, and there is need to strengthen their capacity in terms of planning and implementing ITN activities.

Key areas to be addressed include:

- Disseminate the ITN guidelines to all stakeholders.

- Strengthen coordination of all partners implementing ITN activities (DHMTs to hold technical working group meetings quarterly).
- Enroll more NHCs to support mass distribution and re-treatment campaigns.
- Provide ongoing technical support to the districts in collecting data on ITN coverage and utilization rates to update the database.
- Support mobilization of resources for DHMTs to refurbish or construct storage facilities as well as facilitate acquisition of transport.

2.6 Support needs for Partner Action Plans

The RBM partnership realizes that malaria is everyone's concern, and thus strengthened partnership will be a priority. This partnership extends from the national to the international level and works towards the reduction of morbidity and mortality rates due to malaria as stipulated in the sixth MDG. To ensure this, the following need to be achieved:

- Increased stakeholder participation.
- Continued resource mobilization.
- Improved reporting systems to partners, including donors.
- Prioritize malaria control in terms of budgeting by government and all partners.

The overall estimated budget for the ITN programme is **US$ 32,047,124**.

Table 2: Detailed 2008 ITN Action Plan				Time Frame														
No.	**Activities**	**Indicator**	**Target**	J	F	M	A	M	J	J	A	S	O	N	D	**Estimated Cost (USD)**	**Funding Partner**	**Implementing partner**
				1	2	3	4	5	6	7	8	9	10	11	12			
Objective 1: Ensure at least 100% of households in all non IRS areas have at least three ITNs with 85% utilization rates																		
Activity 1.0: Mass distribution with an estimated cost of US$ 26,101,723																		
1.1	Conduct capacity assessments for Lusaka, Copperbelt and Central Provinces	# of assess-ments conducted	3 provinces				X	X								3,677	GRZ	NMCC, PHO, DHMT, HCs, MACEPA
1.2	Procure 3, 000, 000 LLINs for Copperbelt, Central and Lusaka provinces	# of LLINs procured	3,000,000										X			22,105,263	GFATM	MOH, NMCC
1.3	Distribute 3,000,000 LLINs to Copperbelt, Central and Lusaka provinces	# of LLINs distributed	3,000,000											X	X	1,737	GFATM	NMCC, PHO, DHMT, HCs, UNICEF, JICA, WHO, CHAZ, ZMF, RAPIDS, CARE, NHC, Local leaders
1.4	Procure 500,000 to replace worn out LLINs	# of LLINs procured	500,000								X		X			3,684,211	GFATM	MOH, NMCC
1.5	Distribution of 500,000 LLINs for replacements	# of LLINs distributed	500, 000											X		306,835	GFATM	NMCC, PHO, HCs, DHMT, UNICEF, JICA, WHO, SFH, RAPIDS, CARE, CHAZ

No.	Activities	Indicator	Target	J	F	M	A	M	J	J	A	S	O	N	D	Estimated Cost (USD)	Funding Partner	Implementing partner
Activity 2.0 : Malaria in Pregnancy (MIP) at a budgeted cost of US$ 4,009,059																		
2.1	Procure 400,000 LLINs for all 9 provinces	# of LLINs procured	400,000											X		2,450,000	PMI	PMI/Deliver
2.2	Distribute 400,000 LLINs to all 9 provinces	# of LLINs distributed	400,000												X	786,000	PMI	MOH, NMCC, UNICEF, PHO, DHMT, PMI/SFH
2.3	Procure 90,000 LLINs for all 9 provinces	# of LLINs procured	90,000										X			663,158	GFATM	CHAZ, SFH
2.4	Distribute 90,000 LLINs to all 9 provinces	# of LLINs distributed	90,000												X	52,105	GFATM	MOH, NMCC, WHO, UNICEF, PHO, DHMT, SFH, WHO
2.5	Monitor MIP program in selected districts	# of districts monitored	20	X	X		X			X			X			57,796	PMI	MOH, NMCC, WHO, PMI/SFH, PHO, DHMT, HCs
Activity 3.0: Ensure that all vulnerable populations (PLWAs, OVC, chronically ill) have access to ITNs under Equity Programme to cost US$ 270,628																		
3.1	Procure 25,000 LLINs	# of ITNs procured	25,000										X			184,210	GFATM	CHAZ
3.2	Distribute 25,000 LLINs	# of ITNs distributed	25,000											X	X	80,789	GFATM	ZMF, MOH, NMCC
3.3	Conduct needs assessment to identify vulnerable groups	# of vulnerable groups identified	25,000				X			X			X			5,629	GFATM	NMCC, ZMF, Social Welfare, DHMTs, NHCs

No.	Activities	Indicator	Target	J	F	M	A	M	J	J	A	S	O	N	D	Estimated Cost (USD)	Funding Partner	Implementing partner
Objective 2.0: Ensure at least 90% of nets within communities are efficacious																		
Activity 4.0: Re-treatment exercise at a budgeted cost of US$ 1,339,503																		
4.1	Procure re-treatment kits	# of retreat-ment kits procured	500,000				X									947,368	WB	MOH, NMCC
4.2	Distribute re-treatment kits	# of nets re-treated	500,000					X	X							105,263	MACEPA	MOH, MACEPA. PHO, DHMTs, HCs and all partners
4.3	Support DHMTs, HCs and NHCs in the collection of data prior to re-treatment exercise	# of officers and volunteers supported	2,880					X					X			159,158	MACEPA, UNICEF	MOH, NMCC, PHO, UNICEF, WHO, NGOs, MACEPA
4.4	Monitor re-treatment exercise	# of districts monitored	10							X				X		127,714	MACEPA, GRZ	MOH, NMCC, PHO, UNICEF, WHO, NGOs, MACEPA
Objective 3.0: Strengthen coordination at central, provincial, district and health centre levels																		
Activity 5.0: Hold Technical Meetings and participation in seminars to cost US23,776																		
5.1	Hold quarterly technical working group meetings	# of meetings held	4	X			X			X			X			7,687	GRZ	NMCC and all partners
5.2	Participation in local seminars and workshops	# seminars/ workshops attended	4	X			X			X			X			7,615	GRZ	NMCC and partners
5.3	Participation in international seminars and workshops	# seminars/ workshops attended	4	X			X			X			X			9,474	GRZ	NMCC and partners

No.	Activities	Indicator	Target	J	F	M	A	M	J	J	A	S	O	N	D	Estimated Cost (USD)	Funding Partner	Implementing partner
Activity 6.0: Strengthen activities under the Zambia Business Coalition against Malaria (ZABCOM) at a cost of US$ 16,568																		
6.1	Hold technical working group meetings	# of meetings held	3				X			X			X			5,765	GRZ	MOH and private sector
6.2	Hold workshops	# of workshops held	1							X						10,803	GRZ	MOH and private sector
Activity 7.0: Support Provincial Health Offices (PHOs) in planning sessions at cost of US$ 4,893																		
7.1	Participate in planning meetings for Central, Copperbelt and Lusaka Provinces	# of planning meetings participated in	4				X									4,893	GRZ	MOH, UNICEF, WHO, MACEPA
Activity 8.0: Strengthen the implementation of the Community Malaria Booster Response (COMBOR) at a c oat of US$ 295,276																		
8.1	Hold stakeholders' meetings to strengthen DFTs	# of meetings held	2			X					X					213,230	World Bank	MOH, ZANARA, CRAIDS
8.2	Monitor and evaluate effectiveness of programme	# of community projects evaluated	4	X			X			X	X					2,467	World Bank	MOH, ZANARA, CRAIDS
8.3	Support educational trip	# of trips taken	1				X									79,579	World Bank	MOH, ZANARA, CRAIDS

3.0 Indoor Residual House Spraying (IRS)

3.1 Introduction

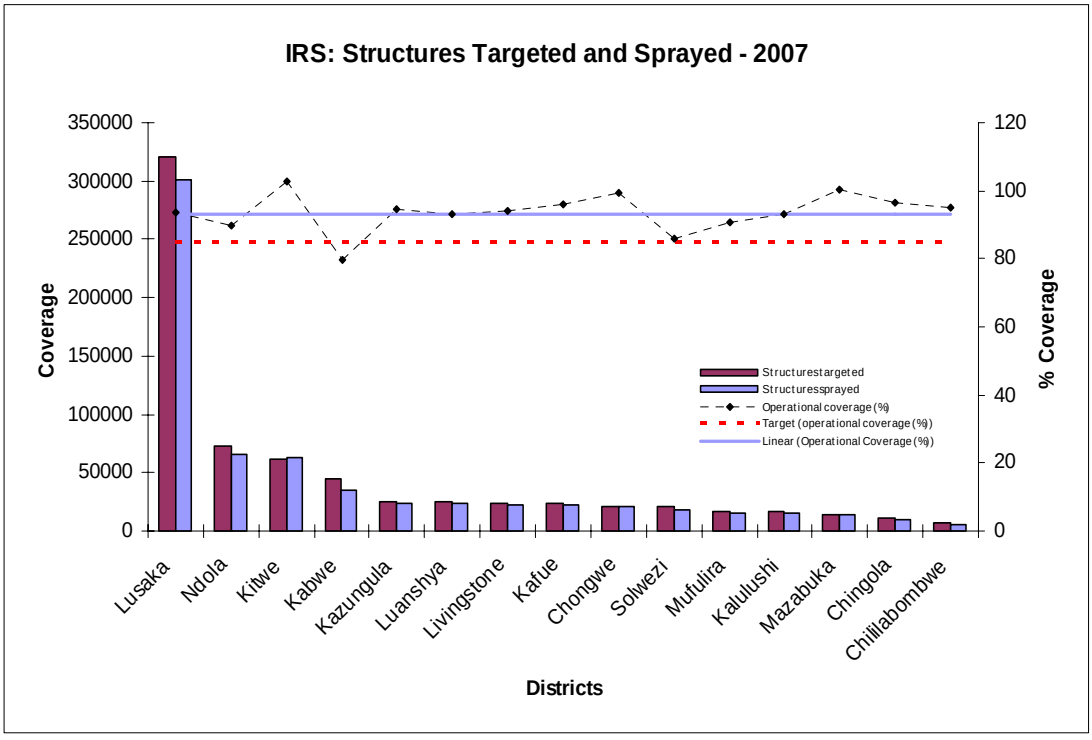
IRS is prioritised particularly in urban areas with high density of eligible dwellings and economically important areas. In the 2008/2009 spray season, 1,600,000 eligible structures or households will be targeted in 36 districts (an increase by 21 districts) that have at least 50% eligible dwellings, conducted through a well-coordinated annual campaign prior to the peak malaria transmission period. The IRS interventions will be deployed with a high level of attention to planning and partnership, community participation and sensitization, and improved and effective operational implementation as well as environmental and human safeguards, quality assurance, and impact assessments.

3.2 Objective

The 2008 IRS objective is to ensure that at least 85% of the targeted households in the 36 districts are protected by the end of 2008.

3.3 Achievements during 2007

- Achieved 93% coverage on average, an improvement from the 87% achieved in the 2006/2007 campaign.



- Well-coordinated and timely implementation of IRS activities with regular partner appraisal.

- Successfully conducted training of trainers workshop for 60 participants targeting district and provincial personnel; this was followed by cascade trainings of a total of 1,300 spray operators in the 15 IRS districts.
- Geo-coded structures in the following eleven IRS districts: Solwezi (North-Western Province); Chililabombwe, Chingola, Kalulushi, Luanshya, and Mufulira on the Copperbelt Province; Kabwe (Central Province); Kafue and Chongwe in Lusaka Province; Mazabuka and Livingstone in Southern Province.
- Conducted post-spray meeting with an attendance of 60 participants; MoH (DHMT, (Provincial Health Office [PHO], and NMCC) and IRS donor and partner representatives.

3.4 Challenges faced in 2007

- Inadequate transport and storage facilities in most IRS districts.
- Delayed procurement of the additional 500 spray pumps.
- Inadequate district supervision and community sensitization for IRS activities.
- Non-incorporation of IRS activities in the district basket action plans and budget as districts continue to expect total funding from NMCC for IRS.
- No reports from most districts on local partnership contribution and involvement.

3.5 Actions to be undertaken in 2008

In order to rapidly scale up and reach the national IRS targets, the programme will strive to implement IRS in a timely manner with well-coordinated activities at all levels. Environmental and human safeguards and timely procurement of commodities with a streamlined stock management and quantification will be prioritised. Needs assessment of the 21 new districts will be conducted early. Household mapping will be conducted in order for logistics and information management to be strengthened at all levels. There will be reinforced social mobilization through early community participation and awareness using different channels including the use of national and local district radio and television stations and incorporation of the IEC/BCC/Advocacy group.

3.6 Support needs for District Action Plans

- Capacity building through quality training of IRS programme officers, coordinators, supervisors and spray operators.
- Finalization and dissemination of IRS guidelines.
- Provision of adequate transport for commodities, equipment, and spraying teams.
- Refurbishment of storage facilities both at provincial and district levels.
- Stock control and management with accurate quantification of spraying equipment and commodity requirements.
- Districts support to help them forge strong advocacy, social mobilization, and intersectoral collaboration efforts.

Table 3: 2008 Detailed IRS Activities

Overall Objective: The 2008 IRS objective is to ensure that at least 85% of the targeted households in the 36 districts are protected by the end of 2008.

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
1.0 Specific Objective: To ensure that all IRS activities are well coordinated																		
Activity 1.0 National level IRS coordination at an estimated cost of US$ 74,000																		
1.1	Coordination of IRS programme - national, partner, provincial and district	# of activities coordinated	4			X			X			X	X	X	X	17,000		NMCC
1.2	Policy and planning	# of meetings conducted	2				X								X	20,000		MoH, NMCC
1.3	Central Data Management Systems	Functional central data system	1			X										5,000		NMCC, HSSP, MACEPA, WHO ,
1.4	Resource Mobilization	# of meetings conducted	3		X		X		X							20,000		MoH, NMCC
1.5	Conduct on spot field visits in all the eligible IRS districts	# of on spot consultations	36			X		X		X		X		X		12,000		NMCC, HSSP, GLOBAL FUNDS, PMI
2.0 Specific Objective: To ensure that IRS is conducted in all the eligible 36 districts																		

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
Activity 2.0 Implement IRS in 36 districts at a cost of US$ 7,827,000																		
2.1	Conduct needs assessment for the earmarked districts	# districts needs assessments conducted	36	X	X	X	X									12,500		NMCC, PHO, DHO, KCM, MCM, HSSP & PMI
2.2	Procurement of spray pumps, accessories, PPE, insecticides (1,245 spray pumps & accessories; 520,000 sachets (32,500kg) insecticides; 2,500 sets of PPEs)	# of spray pumps accessories, PPE, insecticides	-			X	X	X	X							3,900,000		PMI, GRZ, WB, GF
2.3	Distribution of IRS Commodities	# of times of timely distribution	3 out of 3						X	X	X					106,500		HSSP, NMCC, DHO, WB, GF
2.4	Conduct training of trainers workshop for DHO and PHO personnel	# of staff trained	80						X							160,000		NMCC, HSSP, GF, WB, MCM, KCM, PHO, DHO, UNZA
2.5	Eligible districts recruit and conduct cascade training of spray operators	# of spray operators recruited and trained	1,350							X						610,000		DHO, PHO, HSSP, NMCC, UNZA, MCM, KCM

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
2.6	Eligible districts implement IRS on schedule	# of implementing districts	36									X	X	X		3,000,000		GF, NMCC, PHO, DHO, HSSP
2.7	Conduct supervisory and monitoring activities	# of visits	3									X	X	X	X	38,000		NMCC, PHO, MCM, KCM, UNZA, HSSP
3.0 Specific Objective: To ensure that all the eligible IRS households in the selected implementing districts have been geo-coded and mapped																		
Activity 3.0 Geo-coding and Mapping of Households at a cost of US$ 30,000																		
3.1	GIS training in the earmarked districts	# of districts (7) and provinces (4) trained in GIS / Geo-coding	13	X	X	X										15,000		NMCC, MACEPA, HSSP, GF
3.2	Production of Trace maps for the earmarked districts	# trace maps produced	22				X	X	X	X	X					5,000		
3.3	Monitoring and supervision of geo-information and data production in the earmarked districts	# of monitoring & supervisory visits made	3		X	X	X									10,000		NMCC, MACEPA, HSSP
4.0 Specific Objective: To ensure that all the IRS IEC/BCC materials are produced and reviewed																		

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
Activity 4.0: Production and Review of IRS IEC/BCC materials at a cost of US$ 152,000																		
4.1	Production of materials: 5,000 leaflets, 54,000 flyers, and 36,000 posters	# of leaflets, flyers, posters produced	5,000 L 54,000 F 36,000 P					X	X	X	X					145,000		WB, WHO, GF, NMCC, MACEPA
4.2	Review of IEC materials and IRS protocols and guidelines	# of meetings	1						X							7,000		WHO, HSSP, KCM, MCM, PHO, DHO, NMCC, GF, MACEPA
5.0 Specific Objective: To ensure that all the environmental safeguards for IRS are in place.																		
Activity 5.0: Environmental safeguards, storage and waste disposal mechanisms at a cost of US$ 500,000																		
5.1	Maintenance and refurbishment of storage facilities	# of storage facilities refurbished	36		X	X	X	X	X							490,000		NMCC, HSSP, WB, PMI
5.2	Collection of empty sachets and IRS waste from districts	# of districts' waste collected	36											X	X	10,000		NMCC, WB, PMI, HSSP, DHO, PHO and local supplier
	Grand Total for IRS															**8,583,000**		

4.0 Entomology

4.1 Introduction

Zambian malaria control is dependent on decreasing the number of infective bites from the malaria vector to reduce disease transmission in addition to an effective treatment policy. In this regard, the programme has embarked on an Integrated Vector Management (IVM) strategy with IRS and ITNs as the main interventions with Larviciding and Environmental Management (EM) as supplementary interventions. To this effect, entomological monitoring of the vector control interventions is an indispensable component of an evidence-based implementation of the IVM approach.

4.2 Objectives

4.2.1 To conduct research in malaria entomology in order to facilitate the prevention and control of malaria epidemics.

4.2.2 To provide and enhance the efficiency, evidence-based, cost-effectiveness, environmental soundness, and appropriate combinations of regulatory and operational vector control measures, with a measurable impact on transmission risks

4.3 Major entomology achievements in 2007

- Commodities and equipment for insectary maintenance procured under Research Triangle International (RTI) and Innovative Vector Control Consortium (IVCC). Renovations of the insectary completed and functional.
- Epidemiological and entomological investigations started with establishment of team members and entomological indices.
- Laboratory and Simulation field trials conducted for Insect Growth Regulators (IGRs) as an effort towards environmentally safe alternative interventions in the vector control as a means of Resistance Management strategy.
- Post-IRS Entomological and Parasitological surveys conducted for the 2006/2007 spraying campaign.
- Environmental safeguards activity plan submitted to World Bank for approval and support.

4.4 Actions to be taken in 2008

- Conduct entomological surveys in 36 targeted districts.
- Conduct Vector Susceptibility and Resistance activities.
- Implement Insecticide Resistance Management.
- Operationalise the Malaria Decision Support System (MDSS).
- Implement Larval Source Management.
- Implement Environmental Safeguards.
- Hold IVM review meetings and supervisory visits.

4.5 Challenges

- Late disbursement of funds for insectary renovations and procurement of commodities and equipment for its maintenance was a major stumbling block in the commencement of the studies on vector susceptibility and resistance.
- Delayed approval of the IVCC project negatively affected the implementation of the insecticide resistance management and the MDSS.
- The non-operationalisation of the Environmental Plan delayed the implementation of the environmental safeguard policy at district level.

Table 4: 2008 Entomological activities costing

Activity	**Cost (USD)**
Conduct entomological surveys in 36 targeted districts.	61,200.00
Conduct Vector Susceptibility and Resistance activities.	54,000.00
Insecticide Resistance Management.	54,000.00
Operationalise the Malaria Decision Support System.	120,000.00
Implement Larval Source Management.	336,000.00
Environmental Safeguards.	125,000.00
Hold Integrated Vector Management review meetings and supervisory visits.	50,200.00
TOTAL	**800,400.00**

4.6 Support needs for District Action Plans

District Action Plans need support in:

- Provision of adequate training, transport, equipment and commodities for the applicators.
- Quality Entomological and IVM training for Environmental Health Officers.
- Technical assistance support by districts to communities.
- Districts' support for advocacy, social mobilization, and intersectoral collaboration.

Table 5: 2008 Entomology Action Plan

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
Activity 1: To conduct entomological surveys in 36 targeted districts																		
1.1	Determine vector bionomics and conduct entomological monitoring of IRS	# of districts surveyed	36	X	X	X	X	X	X	X	X	X	X	X	X	61,200		NMCC,DHO,HSSP, UNZA, GRZ
Activity 2: To Conduct Vector Susceptibility and Resistance activities																		
2.1	Conduct field surveys for vector collections and insectary maintenance	# of districts surveyed	36	X			X			X			X			54,000		NMCC/UNZA, GFATM
Activity 3: To Implement Insecticide Resistance Management																		
3.1	Evaluation of new insecticide/larvicides as alternatives to DDT	# of larvicides/ insecticides evaluated	4	X			X			X			X			54,000		NMCC, WHO,UNZA, GFATM
Activity 4: To Operationalise the MDSS																		
4.1	Data collection and dissemination	# of districts covered	6	X	X	X	X	X	X	X	X	X	X	X	X	120,000		NMCC, IVCC,MTC

Table 5: 2008 Entomology Action Plan

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
Activity 5: To Implement Larval Source Management																		
5.1	Procure equipment and commodities and conduct larviciding and simple EM in the IVM context	# of districts covered	6				X	X	X	X	X	X	X			336,000		NMCC, VBC, GFATM
Activity 6: To Implement Environmental Safeguards																		
6.1	Develop guidelines	# of districts monitored	36	X			X			X			X			125,000		NMCC/DHO/ECZ/ MoH, WB, PMI
6.2	Conduct operational research			X			X			X			X					
6.3	Monitor safeguards, conduct EIA, baseline, SEA, and Compliance inspections			X	X	X	X	X	X	X	X	X	X	X	X			
Activity 7: To Hold IVM review meetings and supervisory visits																		
7.1	Quarterly review meetings	# of meetings visits conducted	4	X			X			X			X			50,200		MoH, NMCC, PHO, DHO, GFATM
7.2	Supportive visits	visits conducted	36			X			X			X			X			
TOTAL																**800,400**		

5.0 Prompt and Effective Case Management (PECM)

5.1 Introduction

Case management is responsible for all the diagnostic and curative aspects related to malaria. The main objective is to ensure that at least 80% of malaria patients in all districts are receiving prompt and effective treatment according to the current drug policy within 24 hours of onset of symptoms by December 2008. In 2003, the malaria treatment policy was changed, and ACT, specifically artemether-lumefantrine (AL) was selected as the first-line drug for uncomplicated malaria. The policy has since been rolled out country-wide. However, access to ACTs has been limited to the public health facilities. In order to increase access to AL, a phased implementation plan has been initiated to provide the treatment beyond public facilities through home management of malaria (HMM) using community health workers (CHWs). The HMM will utilise RDTs to improve case management at community level. A consistent supply of commodities will be ensured. The private sector will be engaged to provide affordable ACTs. RDTs were introduced to all public health facilities without microscopy. Expansion of focussed antenatal care has continued under the MIP programme, conducted through continued monitoring, supervision, training, and provision of equipment such as haemoglobin meters (Hemocues) and IPTp.

5.2 Action and progress during 2007

The program made efforts to ensure a continued and timely supply of antimalarial drugs. However, there were delays in procurement and supply. In tandem, provision of prompt and accurate diagnostic tools was a high priority. To this effect, the program procured and distributed 96 microscopes to 96 selected health facilities, initiated training for malaria microscopists, and distributed 400,000 RDTs to health facilities without microscopy services. In order to increase the available RDT brands that can be used in Zambia, an additional brand (SD Bioline) was evaluated with successful results. A quality assurance system for diagnostics was initiated, through training of ten frontline laboratory workers in the correct use and interpretation of the diagnostic tools. There were two other case management trainings conducted for frontline health workers in both the public and private sector. As part of the overall strengthening of MIP management, 400 Hemocues procured in 2006 were distributed in 2007. Health worker training in the correct use of the equipment accompanied this.

Phase 1 of the HMM was initiated with a situation analysis being conducted in the first nine districts and the first training being conducted in Livingstone.

5.3 Major challenges in 2007

- Access and timely availability of funds to implement activities.
- Pricing disparity of AL between the public and private sectors.
- Restricted access to effective treatment within 24 hours due to low health facility coverage of the population.
- Problems of supply, appropriate storage facilities, distribution, record keeping, and prompt and accurate reporting persist in health facilities.
- Lack of transport, communications, and feedback mechanisms for referral patients.

- Microscopy services remain limited though efforts have been made to increase them.
- Health worker adherence to diagnostic tools results remains poor, as health workers continued to ignore negative test results and treated patients symptomatically.

5.4 2008 PECM objective

The 2008 objective is primarily to increase access to accurate diagnosis and effective treatment of malaria from 73.1% to 80%.

5.5 Actions to be taken in 2008

The six top priority actions for 2008 are as follows:

- Ensure appropriate management of malaria cases at the health facility level, including scaling up diagnostic capacity.

  Improve the quality of case management in the public sector by providing timely and accurate malaria diagnosis to guide treatment in all health facilities in Zambia.

- Maintain sustained supply of antimalarial drugs and diagnostic tools to all levels of care and eliminate any gaps in the supply chain management of these commodities.

  Strengthen logistics management by ensuring a maintained supply of antimalarial drugs and diagnostic tools.

- Roll out in a phased approach, the HMM intervention through provision of ACTs and RDTs by community health workers.

  Phase 1 of implementation of home management of malaria using ACTs and RDTs in nine districts by the end of 2008.

- Ensure that the provision and use of ACTs is implemented in the private sector.

  Introduce affordable ACT and improve case management among urban registered private sector providers.

- Continue to support the scale-up of management of malaria in pregnancy via Focused Antenatal Care (FANC) in all 72 districts by the end of 2008.

  Strengthen management of malaria in pregnancy through FANC.

- Improve management of severe malaria with a focus on recognition of danger signs and pre-referral treatment at all levels.

  Strengthen recognition and management of severe malaria.

Table 6: Summary of PECM Objectives

Objective	Indicator	Target
Improve quality of case management in the public sector by providing timely and accurate malaria diagnosis to guide treatment in all health facilities in Zambia.	- % health facilities with no stock outs of AL for 1-2 weeks. - Healthcare providers correctly diagnose and treat malaria according to national policy - % facilities providing timely and appropriate diagnosis. - % health facilities with no stock outs of diagnostic materials in last 2 weeks.	- 95% (12/12 months) - 90% - 90% - 95%
Strengthen logistics management by ensuring a maintained supply of antimalarial drugs	- % districts using new ordering/reporting system. - % of district pharmacists trained in drug logistics management. -% health facilities with no stock outs of antimalarial drugs in last 2 weeks	- 90% - 90% -90%
Phase 1 of implementation of home management of malaria using ACTs and RDTs in 9 districts by the end of 2008.	- % CHWs trained/district (or % NHCs with at least one CHW trained) to use ACT. - % CHWs with no stock out for more than one month. - % patients treated by CHWs per month	- 50% -95% - 50%
Introduce affordable ACT and improve case management among urban registered private sector providers.	- % providers with no stock outs. - % patients receiving appropriate treatment. - % patients receiving appropriate instructions.	- 12/12 months - 80% - 80%
Strengthen management of malaria in pregnancy through the FANC	- % health facilities with trained staff providing FANC. -% of all health facilities providing FANC. - % pregnant women receiving 2 IPT doses - % pregnant women receiving 3 IPT doses -% mothers attending FANC receiving haematinics.	- 80% - 50% - 80% for IPTpII - 50% for IPTpIII - 80%
Strengthen recognition and management of severe malaria.	-% of severe malaria cases correctly managed at district hospital level. -% severe cases at clinic level referred appropriately	- 80% -80%

5.6 Support needs for District Action Plans

- Provide standard guidance for districts on what to include in their plans on malaria case management and showing appropriate measures.
- Provide resources for technical and supervisory support.

5.7 Support needs for Local Partner Action Plans

- Ensure members of the Development Plan Committee have updated information on malaria for planning and implementation.
- Provide information to organisations such as Red Cross, Churches Health Association of Zambia (CHAZ), defence forces, police, White Ribbon Alliance members and other local partners, with suggestions on how they can support treatment of MIP and IPTp.

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
Objective : To ensure that at least 80% of malaria cases are appropriately diagnosed and treated within 24 hours by December 2008																		
1.0 Specific Objective: Improve quality of case management in the public sector by providing timely and accurate malaria diagnosis to guide treatment in all health facilities in Zambia																		
Activity 1.0 Provide easy, timely and accurate malaria diagnosis to guide treatment of malaria in all health facilities in Zambia costing US$2,554,720.																		
1.1	Train microscopists working in laboratories but have no formal training.	# of trained microscopists	30		X	X	X									139,000		WB, GF, CHAZ, UTH, UNZA, MOH/NMCC
1.2	Re training of microscopists already trained but are low performing	# of retrained microscopists	10		X	X	X									19,000		WB, GF, CHAZ, UTH, UNZA, MOH/NMCC
1.3	Procure and distribute RDTs to all health facilities and communities	# of RDTs procured, # of facilities using RDTs	2 million		X	X	X	X	X	X	X	X	X	X	X	2,170,000		PMI, WB, GF, GRZ
1.4	Orientation of frontline health workers in the use of RDTs for districts not trained	# of Health workers oriented	500		X	X	X			X	X	X				130,400		WB, GF, CHAZ, UTH, UNZA, PMI/HSSP, GRZ
1.5	Training of provincial and district supervisors not trained in 2007 in malaria diagnosis quality assurance	# of provincial /district supervisors trained	6/44				X			X			X			29,500		WB, GF, CHAZ, UTH, UNZA, MC, PMI, GRZ
1.6	Quarterly sending of known samples to the provinces and districts for reading and testing	% of sample correctly read	80%			X			X			X			X	54,000		WB, GF, CHAZ, UTH, UNZA, PMI, GRZ
1.7	Biannual meeting with	# of provincial	144		X					X						12,820		WB, GF, CHAZ, UTH,

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
	provincial and district managers on malaria case management	& district mangers met																UNZA, PHOs, DHMTs, MOH/NMCC
2.0 Specific Objective: Strengthen logistics management by ensuring a maintained supply of antimalarial drugs																		
Activity 2.0 Strengthen drug logistics management at a cost of US$ 6,213,490																		
2.1	Quantify, procure and distribute Coartem® (doses, insurance, commission and distribution)	# Coartem® doses procured	3.8 m	X	X				X	X						5,320,000		GF, CHAZ, PRA, PSI/SFH, WB, CF, PMI/JSI. UNICEF
2.2	Quantify, procure and distribute SP for IPT	# SP doses procured	400,000 x 3 doses	X	X				X	X						324,240		WB, CHAZ, PRA, CF, PMI/JSI, UNICEF
2.3	Situation analysis of drug logistics management	# of institutions visited	150 health facilities	X	X				X	X				X	X	11,300		WB, CHAZ, MSL, MC, CF, PMI/JSI
2.4	Meeting to address identified gaps	# of meetings held	1			X										7,550		WB, MSL, MC, CF, PMI/JSI
2.5	Training of health workers in drug logistics management	# trained	1454								X	X	X			550,400		GF, WB, MSL, MC, CF, PMI/JSI
3.0 Specific Objective: Phase 1 of implementation of home management of malaria using ACTs and RDTs in 9 districts by the end of 2008.																		
Activity 3.0 Rollout of home management of malaria using ACTs and RDTs in 9/72 districts by the end of 2008 costing US$ 391,000																		
3.1	Orientation of CHWs on HMM in 9 districts on ACTs and RDTs	# oriented	360 (9 by 40)	X	X	X										277,000		WB, GF, UNICEF, SFH, CHAZ, WHO, MC, CRS
3.2	Deregulate Coartem® for CHWs	Deregulation	-								X	X	X			20,000		PRA, MOH/NMCC

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
	Undertake policy review	# of kits updated/ # documents printed	2000 printed docs, 1120 kits updated										X	X	X	40,000		PRA, WB, GF, UNICEF, SFH, CHAZ, WHO, MC, MOH/NMCC
	Develop policy framework												X	X	X			PRA, WB, GF, UNICEF, SFH, CHAZ, WHO, MC, MOH
	Update community drug kit to include Coartem®												X	X	X			MSL, WB, GF, WHO, UNICEF, SFH, CHAZ, MOH, MC
	Printing documents														X			WB, GF, MC, UNICEF
3.3	Quantify and procure Coartem® for use at community level	# of doses procured and distributed	XX			X			X			X			X	XX		GF, PMI, WB, CF, MOH
3.4	Pilot over packaging for HMM Coartem® (explore repackaging)	# of doses repackaged	XX		X	X	X									XX		CF, PSI/SFH, GF, NMCC
3.5	Printing of training materials and supervision tools	# of tools printed	1200 (1120+80)	X	X	X										6,000		GF, WB

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
3.6	BCC/ Community sensitization on effective roles of CWS Develop IEC, radio spots, guidelines, Print and disseminate guidelines Orientation/sensitization of communities	# of IEC activities done	200	X	X	X	X	X	X	X	X	X	X	X	X	-IEC action plan		WB, GF, PSI/SFH, CHAZ, UNICEF, CRS, PMI, MACEPA
		# of guidelines	100			X	X	X								-IEC action plan		
		# of communities sensitized	9 districts	X	X	X	X	X	X	X	X	X	X	X	X	-IEC action plan		
3.7	Evaluation of Home Management of Malaria in first implementing districts	# of communities assessed # of CHWs assessed	9 districts								X	X				28,000		PRA, WB, GF, UNICEF, PSI/SFH, CHAZ, WHO, MC, NMCC/MOH
3.8	Disseminate findings of Phase 1 HMM	# of meetings	10									X	X			20,000		PRA, WB, GF, UNICEF, PSI/SFH, CHAZ, WHO, MC, NMCC
4.0 Specific Objective: Introduce affordable ACT and improve case management among XX urban registered private sector providers.																		
Activity 4.0 Roll out current treatment guidelines with subsidized ACTs to selected private practitioners at a cost of US$ 24,000																		
4.1	Conduct situation analysis on antimalarials available in private sector	# of practitioners assessed	XX	X	X											XX		WB, PSI/SFH, PRA, WHO, CF

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
4.2	Stakeholder meetings to identify partners, agree on implementation strategy including a draft MoU	# of practitioners identified	XX		X	X										XX		WB, PSI/SFH, PRA, WHO, CF
4.3	Finalize development of subsidy plan to make Coartem® available to private practitioners (quantification, procurement, repackaging, distribution)	# of meetings held	2			X	X									4,000		WB, PSI/SFH, PRA, WHO, CF
4.4	Implement subsidy plan for Coartem® for private practitioners	# of private practitioners providing subsidized Coartem®	XX					X	X	X	X	X	X	X		XX		WB, PSI/SFH, PRA, WHO, CF, DFID, MOH
4.5	Identify and train those private practitioners not trained to date on reviewed malaria treatment guidelines	# of practitioners trained	XX			X	X	X	X							XX		WB, PSI/SFH, PRA, WHO, CF, DFID
4.6	Review of findings from subsidy plan for expansion and possible inclusion of drug stores.	Review findings report	1						X	X	X					20,000		WB, PSI/SFH, PRA, WHO, CHAZ, CRS, CF, DFID
Specific Objective : Strengthen management of malaria in pregnancy through the FANC																		
Activity 5.0: Strengthen management of malaria in pregnancy through the FANC at a cost of US$ 1,737,500																		

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
5.1	Strengthening of FANC in two provinces (eastern & central) where IPTp uptake is low	IPTp improved & FANC strengthened	80% IPTp 1, 50% IPTII							X	X	X	X			500,000		RHU, PMI/JIPHEGO, NMCC
5.2	Procure HB meters (Hemocue)	# of HB meters (Hemocue) procured	1,000		X	X	X									500,000		WB, PMI/HSSP, GF, RHU, WHO, NMCC
5.3	Procurement of Hemocue cuverttes for HB estimation for all the districts with machines	# of Hemocue cuverttes procured	500,000		X	X	X									537,500		WB, HSSP GF, NMCC, RHU, WHO, USAID
5.4	Training of frontline health workers in IPT and use of HB meters	# of health workers trained	1,000				X	X	X							200,000		GF, PMI/JIPHEGO, NMCC, RHU
Specific Objective: Strengthen recognition and management of severe malaria.																		
Activity 6.0 : Strengthening severe malaria recognition and management at a cost of US$ 167,262																		
6.1	Conduct training on reviewed treatment guidelines to frontline health workers (Danger sign recognition, pre-referral treatment and advice)	# guidelines/# trained	1450 guide-lines / 236 trained		X	X	X	X								61,200		WB, GF, PRA, WHO, UNICEF, UTH, NMCC
6.2	Training of health workers in inpatient facilities on triage, emergency assessment and	# oriented	200				X	X	X							106,062		WB, CHU, RHU, GF, NMCC, MC

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
	treatment																	
Activity 7.0 Central level monitoring and supervision at a cost of US$ 49,530																		
7.1	Development of supervisory tools for case management supervisory and monitoring visits	Tools developed	1		X	X										7,530		PRA, WB, GF, UNICEF, SFH, CHAZ, WHO, MC, MSL, JSI, CF, PMI/HSSP
7.2	Conduct supervisory visits on case management to include : • Quarterly review/supervision meetings of CHWs • Quarterly supervision of private practitioners on adherence to new drug policy • Support supervision of trained health workers in severe malaria management and use of HB meters • Quarterly provincial and district supervision; on site reading of slides and RDTs testing observation • Central, provincial and district supervision of	# of meetings	4			X			X			X			X	36,000		PRA, WB, GF, UNICEF, SFH, CHAZ, WHO, MC, MSL, JSI, CF, PMI/HSSP

Table 7: Prompt and Effective Case Management (PECM) Plan 2008

Activities		Indicator	Target	Suggested Time Frame For Implementation												Est. Cost (US$)	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D			
				1	2	3	4	5	6	7	8	9	10	11	12			
	health workers on the RDTs implementation process • Quarterly supervision of trained microscopists • Tailored training or support supervision to address identified gaps at lower level in logistics management • Pharmacovigilance monitoring • Sharing of best practices from the province and district • MIP – IPT uptake, FANC • Obtain consumption data from districts on AL																	
7.3	Case management quarterly working group meetings	# of meetings	X	X	X	X	X	X	X	X	X	X	X	X	X	6,000		Technical working group members
7.4	Annual support to IRS, ITN, M&E, & operations research units	-	-	X	X	X	X	X	X	X	X	X	X	X	X	-		WB, GF, CHAZ, UTH, UNZA

The total PECM budget is US$ 11,137,502

6.0 Operations Research

6.1 Introduction

The Operations Research Unit has a mandate to provide timely, accurate, and relevant information regarding the effectiveness of various malaria control interventions. Evidence-informed health care is key in ensuring that only interventions that are effective are implemented. In the case of malaria, it goes beyond implementing effective programmes to also ensuring that the best approaches are explored and used to refine the implementation process. This ensures that best practices are adhered to, maximizing the desired health outcomes.

In order to provide access to information that has been generated, dissemination channels are explored to suit the various stakeholders such as implementers, policy makers, funding agencies, and academic institutions. To achieve this, dissemination meetings are held annually targeting various partners; presentations of abstracts at both local and international conferences are made to share key information; and journal publication of results and posting of reports on the NMCC website has been explored.

Given the challenge to ensure that credible research is conducted, capacity building for research is also an important agenda item for operational research. This ensures broad participation from multidisciplinary angles of research. Increased participation improves the quality and quantity of information that is generated. Stakeholder participation has also helped in indirectly addressing the human resource constraints. With support from partner institutions, research action plans are effectively implemented, as we are able to tap into the available expertise.

Translating research information into policy decision-making is a global challenge. However, in the case of the malaria programme, the research has been designed in such a way that it is responsive to the programme needs and also provides strategic direction to institutions and individuals venturing into malaria research. The findings of the various research activities have also been useful in providing progress updates on indicators required for monitoring purposes and also for planning future programmes. It is also important to advocate for the findings to be incorporated into the policy process.

The current efforts on scaling up of malaria control interventions have led to an increased need for applied research. This will help to measure the impact on the interventions on malaria morbidity and mortality. Economic consequences of the malaria burden at micro and macro levels of the health system need to be documented.

6.2 Goal

To provide timely and sound evidence to guide implementation of malaria control and inform policy decision-making.

6.3 Action and progress in 2007

6.3.1 Operations research

- Completed seven surveys/studies.
- Provided small grants to five students and one DHMT.
- Developed and approved six proposals.
- Held three quarterly ORTWG meetings.
- Finalized the Research guidelines for districts.

6.3.2 Capacity building

- Trained students at MSc/MPH in operations research.
- Developed training curriculum for malaria managers.
- Multidisciplinary human resource mobilization of other health workers to participate in research.

6.3.3 Timely dissemination of research findings

- Nine publications.
- Six abstracts presented at conferences and seminars.

6.3.4 Advocate for evidence-informed policy decision

- Rapid assessment for home management of malaria provided baseline information for the implementation of the HMM strategy using RDTs and ACTs by CHWs.
- Information in other areas is still being collected to inform policy decision-making such as: Safety of ACTs in pregnancy; efficacy of SP-IPTp; efficacy of K-O Tab 123 for ITNs and drug policy review.

6.4 Challenges in 2007

- Untimely flow of funds for implementation of planned activities resulting in crisis management.
- Lack of computer dedicated to storage of databases.
- High staff turnover at DHMT level.
- Inadequate transport for field activities (resorted to hiring at high cost).
- Research findings not readily utilized when developing implementation plans.
- Dissemination of findings.Retention of the much-needed expertise by way of giving financial support for their time and expertise spent on malaria related issues.
- Assured continuity and timely completion of activities.

6.5 2008 objectives and targets

6.5.1 To build capacity for research on malaria using the developed malaria research guidelines for the districts.

- At least 208 staff from 15 districts trained in operations research by December 2008.
- At least five (5) graduate students attached to malaria operations research per year.

6.5.2 To increase stakeholder participation in research.

- Hold quarterly operations research technical working group (ORTWG) meetings.Increase partner representation in the ORTWG.Nominate partners to participate and represent in areas of expertise.

6.5.3 To disseminate research findings in a timely manner.

- 100% of districts receive reports on research findings.
- Update, keep current, and make accessible the malaria study database.
- Hold and participate in scientific fora (local and international).
- Publication of research findings in peer-reviewed journals.

6.5.4 To identify priority areas for research and stimulate operations research in malaria control.

- At least five (5) major study proposals (including impact assessments) developed and approved for 2009.
- At least 10 districts or community-based (small-scale) study proposals developed and approved in 2008.

6.5.5 To advocate for use of results in influencing policy decision making and programming.

- Review the SP component of the malaria treatment policy.
- Review the safety of ACTs in pregnancy (scale up the pregnancy registry).
- Influence more than 50% of policies related to malaria control by research evidence.

6.6 Priority areas for 2008

A. Continuing with annual research activities

- Drug compliance monitoring.
- Antimalarial drug efficacy monitoring.
- Bioassays in IRS and ITN areas.
- Capacity building for both district and institutional partners.
- Dissemination of research findings and their inclusion in policy decision-making.

B. Implementing the research priority areas

The following proposals have already been developed**,** ethical approval obtained, and pending funding:

- Impact of rapid scale up on malaria morbidity and mortality patterns.
- Malaria drug policy review.
- Feasibility of ACT and RDT in HMM.
- KAP on ITN and IRS program.
- Quality assurance of malaria diagnosis.
- Efficacy of SP for IPTp.

C. Proposal Development for 2009 Studies

6.7 Gap analysis

6.7.1 Where are we?

- Priority areas have been identified.
- Proposals have been developed and approved.
- There is multi-sectoral, multidisciplinary working group participation.
- Most of the routine activities were carried out in 2007.

6.7.2 Where do we need to be?

- Update malaria research databases.
- Make funds available to carry out stipulated activities in the action plan.
- Build research capacity at district level.
- Fund post-graduate research in malaria.
- Improve applied research in IRS and ITN.
- Disseminate research findings to all stakeholders.
- Scale up data collection for safety of ACTs in pregnancy.
- Review SP component of the malaria treatment policy.
- Scale up the malaria-HIV co-infection study.
- Undertake impact studies (all programme areas).

6.8 Support needs for District Action Plans

The district has been identified as a key stakeholder in implementation of these activities, and therefore there is need to strengthen the capacity of districts in planning and conducting operations research. Some of the key areas that need to be addressed are as follows:

- Reviewing the malaria planning guidelines for the districts to incorporate the research component.
- Training key district personnel in operations research methodology.
- Providing ongoing technical support to the districts in identifying key research questions and proposal development.
- Distributing completed Research Guidelines for the District.

6.9 Support needs for Partner Action Plans

Recognizing that malaria control is not the responsibility of government alone, there is need for partnership strengthening so as to maintain the momentum of scaling up of malaria interventions for impact. Some of the activities will include:

- Increasing stakeholder participation.
- Budgeting for partners' time on malaria-related activities.
- Supporting malaria-related activities financially in the partner action plans.
- Timely reporting to donor partners.

Table 8: Operations Research Work Plan: Detailed description, targets, timeframes, cost and partner

Activities	**Indicators**	**Targets**	**Suggested Time Frame for Implementation**												**Est. Cost US$**	**Partners**
Operations research	**Available evidence for decision making**	**Information available on programme effectiveness**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**		
Objective: Provide timely and sound evidence to guide implementation of malaria control and prevention activities and enhance evidence based policy decision making																
Compliance monitoring (patient & health worker)	% patient compliance, % HW prescribing AL correctly	7 districts		X	X										58,700	NMCC, Chainama, UNZA, DHMTs, WHO, UNICEF, Russian-WB
Antimalarial drug efficacy monitoring	% ACPR of first line antimalarial drugs	7 districts		X	X	X	X	X							185,925	NMCC, Chainama CHS, UNZA, DHMTs, TDRC, MIAM, WHO, R-WB
Malaria Policy analysis (stakeholder and implementation analysis)	Report on successes and challenges finalized & disseminated	10 districts, stakeholders, review SP component	X	X	X	X									38,655	NMCC, DHMTs, TDRC, World Bank, UNZA, UTH
Feasibility of using ACTs and RDTs for Home Management of Malaria	RDTs and ACTs piloted at community level	7 districts	X	X	X	X	X	X	X	X	X	X	X	X	54,000	NMCC, PRA, TDRC, CHU, World Bank

Activities	Indicators	Targets	Suggested Time Frame for Implementation												Est. Cost US$	Partners
			Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec		
			1	2	3	4	5	6	7	8	9	10	11	12		
Malaria in pregnancy evaluation (efficacy, KAP, impact)	ACPR and safety of SP in pregnancy	8 districts	X	X	X	X	X	X	X	X	X	X	X	X	100,000	NMCC, UNZA, TDRC, World Bank, PMI
KAP Study on ITNs/IRS in target districts	% of people with correct KAPs	IRS and ITN districts	X	X	X	X									43,430	NMCC, UNZA, World Bank
Modeling future impact of malaria control interventions	Model developed and updated	All interventions areas						X	X	X	X	X	X	X	30,000	NMCC, R-WB
Bioassay on insecticides for ITNs and LLINs	Parasite rates, KDRs, MRs	ITNs mass campaign districts	X	X	X	X	X	X	X	X	X	X	X	X	50,000	NMCC, WHO, UNICEF, R-WB, IVCC
Training district level staff in applied research methods	No. of personnel trained	15 Districts (280 district staff)				X			X			X		X	150,080	NMCC, UNZA, R-WB
Proposal writing workshop for 2009 priority areas	No. of proposals written	5 proposals							X	X	X				22,388	ORTWG, R-WB, GFATM
Hold quarterly research working group	No. of quarterly meetings	4 ORWG meetings	X			X			X			X			30,000	ORTWG, MACEPA,GFATM

meetings																
Activities	**Indicators**	**Targets**	**Suggested Time Frame for Implementation**												**Est. Cost**	**Partners**
			Jan	**Feb**	**Mar**	**Apr**	**May**	**June**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**US$**	
Post graduate research support	No. of students supported	10 MSc/MPH students			X	X	X	X							25,000	NMCC, MACEPA, R-WB, GFATM, UNZA
Attending scientific meetings	No. of meetings and papers presented	Scientific meetings			X			X			X	X			50,000	MACEPA, R-WB, GFATM
Hold annual malaria conference	No. of conferences	1 conference per year											X		50,000	ORTWG, R-WB, GFATM
Subscriptions and publications to journals	No. of journals or e-library subscribed to	-	X	X	X	X	X	X	X	X	X	X	X	X	26,000	NMCC, UNZA, TDRC, R-WB
Local research bulletin formation	Core group formed, editorial board identified, sponsors	Local health research results							X	X	X	X	X	X	10,000	ORTWG, R-WB
Malaria and HIV co-infections study	Renew ethics approval	5 sites						X	X	X	X	X	X		50,000	ORTWG, R-WB
Research and Development	AL resistance marker baseline study	Country level collaborations	X	X	X	X	X	X	X	X	X	X	X	X	12,000	NMCC, UNZA, TDRC, MIAM, MSTVT, R-WB
TOTAL COST (Operations Research)															**986,178**	

7.0 Information, Education, Communication/Behaviour Change Communication (IEC/BCC), and Advocacy

7.1 Introduction

Communication is an integral and important component in the prevention and control of malaria. In order to attain the set Abuja RBM targets, communication needs to be fully integrated into the key malaria interventions and not seen as an isolated intervention. Strategically designed and targeted communication can play an important role in supporting the scaling up of malaria prevention and control efforts at individual, household, community, and national levels. Over the past year, new communication facilities have been established, particularly in the rural areas where the information needs are greater. These communication channels include television, community radio, dissemination (distribution) and placement of posters, and distribution of educational materials through health facilities and community based organisations. Key partners such as Zambia News and Information Services (ZANIS) procured mobile video units and are willing to facilitate mobile video shows at minimum cost. As the national malaria control programme scales up interventions to achieve impact, communication activities need to be intensified.

The IEC/BCC component of the malaria control programme has the task of ensuring the following:

- Identify and plan appropriate activities for RBM IEC/BCC campaigns.
- Identify and develop the range of IEC/BCC materials.
- Support provinces and districts to establish and strengthen IEC/BCC activities.
- Support districts to make an inventory and support the development of community based malaria control IEC/BCC.

7.2 Goal, objectives, and targets from the National Malaria Strategic Plan

The goal of the IEC component is to reduce the burden of malaria morbidity and mortality through behaviour change communication. Communication is an important process of informing and persuading communities to adopt positive behaviours to take preventive measures, recognize signs and symptoms of malaria, and seek early and appropriate treatment. On a broader scale, effective communication is essential for society to generate political will and mobilize resources to tackle the effects of malaria.

Communication that addresses specific behaviours is cardinal. Behavioural impact cannot be achieved without structured and strategically planned communication support for specific and precise behavioural results. It is important to ensure that the correct information (message) is communicated in the right way (method), at the right time, to the right people (audience), and with the right effect.

The rapid scale-up of malaria control in Zambia will prove successful if communities accept and use preventive and treatment measures being implemented. Communities need to develop the conviction that malaria is a preventable and curable disease and adopt appropriate behaviour. Each malaria intervention (ITNs, IRS, MIP/IPTp, and case management) requires a package of IEC/BCC materials, skills, and resources to deliver the messages in an effective manner.

7.3 Review of actions and progress during 2007

In 2007, a number of achievements were recorded, and the 2008 Scale-up Plan builds on the success of the 2007 Action Plan. The programme utilised high profile annual events such as Southern Africa Development Community (SADC) Malaria Week, Africa Malaria Day, and other national events to bring national visibility to malaria control efforts. The following were the major activities conducted:

- Printing of the Malaria Communication Strategy.
- Review of IEC materials.
- Commemoration of Africa Malaria Day and SADC Malaria Week (activities included Race Against Malaria, involvement of the House of Chiefs, production of a TV documentary to highlight SADC Malaria Week activities, production of Africa Malaria Day, and SADC Malaria Week supplements with a Special SADC Malaria Week Supplement in the newspapers including the Post Newspaper).
- Development of IEC materials on ITNs and IRS.
- Production and broadcast of radio and television spots on IRS and ITNs.
- Development of a mini-communication strategy in support of the IRS campaign.
- Production of IRS television drama documentaries in English and local languages.
- Broadcast of various programmes on ZNBC television and radio 1 and 2, as well as community radio stations.
- BCC trainings and development of BCC Action Plans for districts in Eastern and Southern Provinces.
- Trainings by Central level in partnership with Health Communication Partnership (HCP) and MACEPA for community radio stations that in turn developed 2008 programme plans.
- Advocacy meeting for the House of Chiefs.
- Production of a Special Malaria Supplement for the SADC Heads of State Summit held in Lusaka.
- Journalist trainings and the first-ever Malaria Media Awards.
- Studies and surveys conducted in Zambia which found that current knowledge levels of malaria preventive measures were high: approximately 90%. However, adoption of new behaviours does not seem to follow the high level of knowledge.

7.4 Actions to be taken in 2008

The focus for 2008 will be to sustain these current high knowledge levels and endeavour to raise the intervention utilisation rates through targeted IEC and advocacy campaigns. We will also ensure full utilisation of combined communication channels on a continuous basis as opposed to event-driven campaigns in an effort to get people to adopt desired positive behaviours for malaria control and prevention. Continued engagement of the media and the House of Chiefs will be areas of priority, as well as orientations for traditional leaders which will include headmen, religious leaders, traditional healers, and civic leaders. Interpersonal communication (IPC) at the community and household level will be done through partnership with ZANIS in

carrying out mobile video shows in the most rural areas and utilisation of community radio stations where they exist. Drama performances will be undertaken at community level to enhance the IPC. Health workers will be engaged, although they are constrained due to inadequate numbers and lack of time to carry out IEC/BCC work. The gap could potentially be filled through engagement of CHWs, NHCs, and community- and faith-based groups that shall be mobilized to deliver the IEC/BCC messages. CHW training shall include IEC/BCC. Messages will be developed that will bring about behavioural change, targeting increased usage of nets, IRS acceptance, IPT delivery and uptake, and early care-seeking behaviour.

The objectives will address all programme area needs and target specific audiences, such as the school health programme targeting school-going children: traditional leaders, civic leaders, media, and faith-based organisations. Once these objectives are achieved, they will be maintained and increased to sustain the desired behaviours. The programme will strengthen partnership with key stakeholders that have technical skills in communication such as the Ministry of Information and Broadcasting, HCP, and Society for Family Health (SFH). Progress monitoring will be emphasized.

7.5 Support needs for District Action Plans

District Health Action Plans require support in form of resources: staff, finances, equipment and technical. Resource allocation for IEC/BCC plans needs to be increased if tangible scale-up results are to be achieved. The national IEC/BCC plan will build on the achievements and plans that address specific IEC/BCC needs in the districts. Central level will need to be proactive in mobilizing resources; encouraging partners to support and buy into district plans. Identification of key partners should be a key priority. Full involvement of local leadership in health issues, particularly malaria, should be encouraged. The national level IEC working group will provide technical assistance to districts to ensure consistency across districts in promoting malaria prevention and control; to achieve equitable benefits for the community.

7.6 Support needs for Partner Action Plans

Partners need to be identified, mobilized, and made to feel relevant to the cause. They should be given an opportunity to support activities and provided with guidelines for material development and information dissemination. Partners with competencies and record of achievements in specific areas will be engaged to achieve impact. Collaboration at the community, district, provincial, and national levels should be encouraged to facilitate sharing of information and development of focused messages to avoid duplication of efforts. IEC technical working group meetings will be held on a quarterly basis to review, plan and identify areas of need for IEC/BCC. Joint planning will be encouraged to ensure prudent use of resources to achieve a common goal and eventually the RBM, the Millennium Development, and the National Development Goals.

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
Activity 1.0 Distribution and orientation to malaria communication strategy in the 72 Districts by the end of 2008																			
1.1	Conduct provincial launch of the communication strategy	Communication strategy launched and distributed	9 Provinces	x												**30,000**			CHAZ, GF, HCP, MACEPA, ZANIS, WHO
1.2	Orient district staff to the communication strategy			x		x		x		x									
1.3	Distribution of the communication strategy			x		x		x		x									
	Subtotal															**30,000**	**30,000**		
Activity 2.0 Behaviour Change Communication Capacity Building																			
2.1	Conduct training	Orientations conducted	7 Provinces		x	x										**187,500**			Global Fund
2.2	Development of district BCC Action Plans					x													
2.3	Orientation of the NHCs, MA, CBOs, FBOs (To be included in action plans and conducted by districts)						x	x	x	x	x					District Action Plan			Districts
2.4	Support for implementation of District BCC Action Plans (Disbursed to PHO)						x				x					**180,000**		**180,000**	World Bank
2.5	Formation, TORs and budget for IEC/BCC provincial and district committees										x	x				**9,000**			Malaria Consortium

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
2.6	Monitoring of district BCC implementation							x	x					x		**10,000**			
	Subtotal															**386,500**			
Activity 3.0 Production of IEC materials																			
3.1	Meetings to coordinate and review existing IEC materials	Number of targeted areas with IEC materials	National/ All districts		X											**5,000**			PMI/HCP, CHAZ, GF, MACEPA, SFH, ZANIS
3.2	Printing of translated rapid diagnostic test kits (RDTs) job aids				X											**15,000**	**25,000**		World Bank
3.3	Development and distribution of IEC materials					X	X										**25,000**		PMI/HCP, GF
3.4	Development and distribution of School Health programme IEC materials								X	X	X						**46,000**		GF, WB
3.5	Refurbishment of billboards					X	X	X	X	X	X	X	X	X	X	**80,000**			
3.6	Production of drama documentaries in seven (7) local languages and English							X	X			X	X			**130,000**			ZANIS, *CDC*
	Subtotal															**230,000**	**96,000**	**134,000**	
Activity 4.0 Support behaviour change communication proposals																			

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
4.1	Orientation meeting of BCC implementing partners								X							**1,000**			WB Booster Project, CHAZ, HCP, MACEPA, ZMF, SFH,
4.2	Review proposals									X	X					**1,000**			NMCC, IEC/BCC TWG
4.3	Financial support to partners	Proposals supported and monitored	5 Proposals						X	X	X					**250,000**			MACEPA, PMI, MOH
4.4	Supervision/technical support visits									X	X	X	X	X	X	**10,000**			
4.5	Evaluation														X	**10,000**			
	Subtotal															**272,000**			
Activity 5.0 Advocacy and coordination meeting																			
5.1	Preparatory meetings	Advocacy meetings conducted	2 National and 9 Provincial			X	X	X								**2,000**		**2,000**	CHAZ, HCP, MACEPA, WHO, UNICEF, ZMF
5.2	Development of advocacy information kits						X	X								**6,000**		**6,000**	
5.3	Meeting with MPs, House of Chiefs, FBOs,						X	X								**120,000**		**120,000**	
5.4	Meeting with commercial companies (Celtel, MTN, Zamtel)											X	X			-			

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
5.5	Monitor implementation of community action points													X	X	**10,000**		**10,000**	
	Subtotal															**138,000**		**138,000**	
Activity 6.0 Community mobilization																			
6.1	Review and development of radio and television scripts and discussion guides	Community activities conducted	72 Districts	X	X	X	X									**10,000**			GF, HCP, MACEPA, WHO, UNICEF, SFH, ZANIS
6.2	Development of radio and television spots (CM, IRS, ITN, IPT)						X	X	X	X	X	X	X	X	X	**2,000**			
6.3	Subcontract production of radio and television spots						X	X	X	X	X	X	X	X	X	**20,000**			
6.4	Broadcast of spots and programmes			X	X	X	X	X	X	X	X	X	X	X	X	**250,000**			
6.5	Mobile video shows			X	X	X	X	X	X	X	X	X				**100,000**			
6.6	Orientation of community based groups (NHCs, MA, CHWs, TBAs, CBOs, PHLWAs)						X	X	X	X	X	X	X	X	X	**50,000**			
6.7	Monitoring and evaluation				X		x			x		x	x		x	**5,000**			
	Subtotal															**437,000**	**70,000**	**367,000**	
Activity 7.0 Commemoration of World Malaria Day and SADC Malaria Week																			
7.1	Preparatory meetings	Malaria days commemorated			X	X	X					X	X			**5,000**			CHAZ, HCP, MACEPA, WHO,

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
																			UNICEF, SFH, ZANIS, GF, USAID
7.2	Development and distribution of guidelines and IEC print materials				X							X				**30,000**			
7.3	Development and broadcast of spots					X	X						X			**30,000**			
7.4	Mobile Video Shows						X						X	X		**50,000**			
7.5	Technical and financial support to districts				X	X	X						X			**15,000**			
7.6	Commemoration (Main Day Activities)						X							X		**50,000**			
7.7	Monitoring and evaluation				X	X	X								X	**2,000**			
7.9	Race Against Malaria						X									**10,000**			
	Subtotal															**192,000**	**22,000**	**170,000**	
Activity 8.0 Sensitization of communities during Child Health Week																			
8.1	Preparatory meetings	IEC activities conducted	72 districts		X						X					**1,000**			Malaria Consortium WHO, UNICEF, HCP, CHAZ, ZANIS, SFH
8.2	Development and distribution of guidelines and IEC materials					X	X	X				X				**50,000**			
8.3	Development and broadcast of spots							X	X					X		**15,000**			

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
8.4	Production of a television drama documentary (Child Health – Malaria)								X					X		**2,000**			
8.5	Mobile video shows						X		X					X		**10,000**			
8.6	Community and advocacy meetings						X		X					X		**2,000**			
8.7	Orientation of district and provincial staff						X							X		**10,000**			
8.8	Monitoring and evaluation								X					X	X	**10,000**			
	Subtotal															**100,000**	**10,000**	**90,000**	
Activity 9.0 Orientation for Media Heads and Radio Managers																			
9.1	Preparatory meetings		40 media heads								X					**1,000**			SFH, MACEPA, WHO, UNICEF, HCP, ZANIS
9.2	Conduct orientation meeting										X					**10,000**			
9.3	Monitoring and evaluation											X	X			**5,000**			
	Subtotal															**16,000**		**16,000**	
Activity 10.0 Training for Community Radio Stations (4 Provinces)																			
10.1	Preparatory meetings	Journalists trained	20 journalists		X											**1,000**			MACEPA, HCP, CHAZ, ZANIS,
10.2	Review of training materials				X											**3,000**			
10.3	Conduct trainings					X										**66,000**			

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
10.4	Provide technical support					X	X	X	X	X	X	X	X	X	X	**5,000**			
10.5	Support broadcast of programmes					X	X	X	X	X	X	X	X	X	X	**50,000**			
10.6	Monitoring and evaluation						X		X	X	X	X	X	X	X	**5,000**			
	Subtotal															**130,000**	**130,000**		
Activity 11.0 Holding of the 2007 Media Awards																			
11.1	Preparatory meetings	Journalists awarded	8 journalists			X										**2,000**			MACEPA,HCP, CHAZ, Malaria Consortium
11.2	Placement of adverts in the media (print and Electronic)						X									**5,000**			
11.3	Review and selection of submitted articles and programmes												X			**2,000**			
11.4	Media Award Ceremony													X		**12,500**			
11.5	Monitor malaria stories in the media						X	X	X	X	X	X	X	X	X	**-**			
11.6	Evaluation														X	**2,000**			
	Subtotal															**23,500**		**21,000**	
Activity 12 Participation in Agriculture and Commercial Show and International Trade Fair																			
12.1	Technical meetings	Report	2 shows					X	X	X						**1,000**			GF, SFH

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
12.2	Stand preparations								X	X	X					**5,000**			
12.3	Production, distribution and display of IEC materials					X	X									**10,000**			
	Subtotal															**16,000**		**16,000**	
Activity 13 Mobilization of Traditional Healers																			
13.1	Preparatory and technical meetings	Traditional Healers oriented	9 provinces			X	X									**2,000**			ZMF, WHO, CHAZ, THAPAZ, NGOs
13.2	Development of IEC							X								**10,000**			
13.3	Orientation of traditional healers (patient education, referral of severe malaria, community mobilization)									X	X					**50,000**			
13.4	Monitoring and evaluation															**2,000**			
	Subtotal															**64,000**		**64,000**	
Activity 14 Commemoration of other days (World AIDS Day, World Health Day, etc.)																			
14.1	Preparatory and technical meetings		9 provinces													**2,000**			WHO, HCP, ZMF, CHAZ
14.2	Development of IEC on Malaria and HIV/AIDS					X								X		**10,000**			
14.3	Printing of IEC	Number of IEC printed				X								X		**50,000**			

Table 9: 2008 IEC/BCC Advocacy Plan

Activities		Indicator	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
14.4	Distribution of IEC	Number of materials distributed				X								X		**20,000**			
	Subtotal															**82,000**		**82,000**	
Activity 15 Engagement of Private Sector (Tourism and hospitality industry)																			
15. 1	Preparatory and technical meetings		2 provinces (Livingstone & Lusaka)						X							**2,000**			WHO, HCP, ZMF, CHAZ
15.2	Development of IEC on Malaria and Tourism								X	X						**30,000**			
14.3	Advocacy Meeting	Meeting held								X	X					**20,000**			
15.4	Establish malaria desks at ports of entry (Borders, Airports, airlines, etc)	Malaria desks established	10 airports & borders									X	X			**50,000**			
Subtotal																**102,000**		**102,000**	

GRAND TOTAL US$ 2,219,000

8.0 Performance Monitoring and Evaluation (M&E)

8.1 Introduction

Monitoring and evaluation of the malaria interventions and their associated impact on malaria burden is critical for the NMCP to demonstrate progress in achieving positive outcomes and impact in the scale-up of interventions. The 2006-2010 NMSP provides a monitoring and evaluation framework which ensures that Zambia deploys an evidence-based, cost-effective package of interventions that are appropriately evaluated and documented.

8.2 Progress update for 2007

- Upgraded the MIS from version 3.0 to 4.2 in all the 10 sentinel districts.
- Established the Global Malaria Programme Database; selected districts and NMCC staff were trained in use of the database.
- Trained 60 key staff from the 15 IRS districts in the use of Personal Digital Assistants (PDAs) and Healthmapper Geographical Information Systems (GIS) software to collect and process IRS data.
- Geo-coded 11 out of the 15 IRS districts: North-Western Province (Solwezi), Copperbelt Province (Chililabombwe, Chingola, Kalulushi, Luanshya and Mufulira) Central Province (Kabwe), Lusaka Province (Chongwe and Kafue), and Southern Province (Livingstone and Mazabuka).
- Developed an IRS planning and monitoring system.
- Participated in the national MoH coordinating M&E meetings.
- Participated in a regional workshop on M&E for Population, Health and Nutrition Program in Ethiopia.
- Maintained contact with the RBM Monitoring and Evaluation Reference Group.

8.3 Challenges:

Challenges encountered in 2007 included the following:

- Irregular and inconsistent MIS monthly reporting by all sentinel districts.
- To understand progress in facility-delivered interventions; especially drug supply management, case management, and diagnostics.
- Feedback from national level and provinces/districts and vice versa not done.
- Inadequate Information Technology and Communication (ITC) infrastructure and lack of up-to-date ITC tools especially at district level.
- Irregular M&E review and coordinating meetings.
- Inadequate skills for data management and reporting.
- Inadequate personnel and skills development.
- Lack of transport for monitoring of activities at provincial and district levels.
- Difficulty of performance assessment of key service delivery issues (determining ITN coverage and ITN need).
- Inadequate channels for information dissemination.

8.4 Objectives for 2008

- Fully operationalise the National Malaria M&E Plan by end of 2008.
- Strengthen the M&E capacity of the NMCP at all levels.

- Improve district ability to report on malaria-related performance, including malaria burden and delivery of malaria interventions by all sentinel districts by end of 2008.
- Strengthen the coordination of malaria M&E activities at all levels by the end of 2008.
- Conduct key evaluations of service delivery areas to understand how well the malaria M&E system is functioning and document impact on key interventions.

Table 10: M&E funding sources and gaps

Funding source	**Available USD**
GRZ	60,000 (ZMK240m)
World Bank Malaria Booster programme	?
Global Fund Round 1 Phase 2 Year 4	21,700
Global Fund Round 4 Phase 1 Year 2	83,000
Global Fund Round 4 Phase 2 Year 3	47,500
Global Fund Round 7	?
PMI	388,000
MACEPA – MoH	260,000
MACEPA	800,000
TOTAL	**1,660,200**

1 US$ = ZMK 4000

8.5 Support needs for District Action Plans

- Inclusion of standard M&E tools and reporting.
- Technical assistance support by PHO to districts.
- Technical assistance support by districts to health centres.
- Data collection tools, procurement tools, and training in the use of the tools.
- Evaluation methods.
- Transportation (vehicle procurement).

8.6 Support needs for Partner Action Plans

Partner Action Plans need to reflect core components for M&E, as well as consistent M&E standards, indicators, and tools. A lot of progress has been made nationally and regionally on standardizing malaria M&E indicators. Partners should incorporate these in their plans. This guidance is available and updated in the M&E plan.

Table 11: M&E Activities, 2008

No.	Activities	Indicator	Target	Estima-ted cost (USD)	Source of funds	Month												Potential implementation partners
						J	F	M	A	M	J	J	A	S	O	N	D	
Objective 1: **To strengthen the coordination of malaria M&E activities at all levels by the end of 2008**																		
1	**National Malaria M&E Coordination**																	
1.1	M&E Technical Working Group meeting (quarterly) with representation from districts and provinces	Number of meetings held	4	17,000	MACEPA			X			X			X			X	NMCC
1.2	Weekly MoH Technical Working Group meetings	Meetings attended	All	0	-	X	X	X	X	X	X	X	X	X	X	X	X	MoH
1.3	Maintain linkage with RBM Monitoring and Evaluation Reference Group (MERG) and Representation at WHO AFRO and ICST Annual meetings	Number of RBM meetings attended		40,000	MACEPA					X						X		NMCC (M&E FP), MACEPA, WHO (FP)
	Subtotal			**57,000**														
Objective 2: To improve the district ability to report on malaria-related performance, including the burden of malaria and the delivery of malaria interventions																		
District performance monitoring																		
2.1	Support for linking collecting, analyzing, reporting on routine information with MOH, Planning/HMIS Including links with PHO and CRAIDS officers, DHOs (malaria focal points) and DFTs	Timely reporting through the HMIS	4	150,500	World Bank	X	X	X										MoH (M&E FP), ZANARA MACEPA, WHO, PMI

No.	Activities	Indicator	Target	Estima-ted cost (USD)	Source of funds	Month												Potential implementation partners
						J	F	M	A	M	J	J	A	S	O	N	D	
Programmatic Monitoring																		
2.2	Support for Malaria Information System (MIS) in 10 sentinel districts (feedback, Presentation of information, capacity building in managing the data – presentation)	Number of sentinel districts reporting using MIS	10	27,000	Global Funds	X	X	X	X	X	X	X	X	X	X	X		NMCC, WHO (FP)
2.3	Support to 10 sentinel sites	Number of sentinel sites supported	10	300,000	PMI	X	X	X	X	X	X	X	X	X	X	X	X	NMCC, TDRC
2.4	Support supervision, integration with EPI	Number of support super-visions conducted	12	61,000	GRZ Grant, MACEPA													MoH, NMCC, WHO (FP)
2.5	Updating ITN distribution database	Up to date ITN database	Updated database	15,000	MACEPA, GRZ Grant	X	X	X	X	X	X	X	X	X	X	X	X	NMCC (M&E)
2.6	Maintenance of the IRS information system	Functiona l IRS Informati on system		10,000	MACEPA/PMI	X	X	X	X	X	X	X	X	X	X	X	X	HSSP, MACEPA, NMCC
2.7	IRS spray areas mapped – 10 districts	Number of IRS districts mapped	10	250,000	MACEPA/PMI/ Global Funds	X	X	X	X	X								HSSP, MACEPA, NMCC

No.	Activities	Indicator	Target	Estimated cost (USD)	Source of funds	Month												Potential implementation partners
						J	F	M	A	M	J	J	A	S	O	N	D	
2.8	Summary report of spray activities for 2007 spray season	2007 IRS report produced	Completed report	2,000	PMI				X									NMCC, Districts, MACEPA HSSP
2.9	IRS Impact assessment	IRS impact assessment conducted		20,000	MACEPA/PMI				X									HSSP, NMCC, MACEPA
2.10	**Epidemic monitoring – reports disseminated, reporting for provision of buffer stock** [#]	Epidemics reported		50,000	MACEPA	X	X	X	X	X	X	X	X	X	X	X	X	WHO, MoH, NMCC
	Subtotal			**885,500**														
Objective 3: To conduct key evaluations of service delivery areas to understand how well the malaria M&E system is functioning and document impact on key interventions																		
Evaluation																		
3.1	Conduct household survey - Zambia Malaria Indicator Survey (MIS)	2008 MIS survey report produced		800,000	MACEPA/World Bank/ Global Funds/ UNICEF/ HSSP/ MOH	X	X	X	X	X	X	X						NMCC, MACEPA, CDC, WHO, MoH, UNZA, RBM-MERG, IVCC, CSO

No.	Activities	Indicator	Target	Estimated cost (USD)	Source of funds	Month												Potential implementation partners
						J	F	M	A	M	J	J	A	S	O	N	D	
3.2	Evaluation of malaria interventions delivered through facilities (health facility survey)	2008 Health facility report produced	1	300,000	WHO/ MOH			X	X									NMCC,WHO, MACEPA
3.3	Dissemination of the Malaria expenditure / economic impact evaluation results	Report produced and dissemin-ated	1	15,000	MACEPA		X											MACEPA, NMCC
Reporting																		
3.4	Dissemination of the National Malaria M&E Plan and printing	M&E plan dissemin-ated		30,000	MACEPA		X											NMCC, MACEPA, PMI
3.5	Prepare Annual Malaria Status Report 2008	2008 Malaria Status Report produced	1	5,000	MACEPA	X	X											MACEPA, WHO, NMCC
3.6	Donor reporting (Global Fund, WB Booster, USAID, MACEPA) narrative	Quarterly reports produced	4	2,000	MACEPA			X			X			X			X	NMCC, MoH
3.7	Continue utilizing www.nmcc.org.zm for communication of M&E related products and documents	Website updated		5,000	MACEPA	X	X	X	X	X	X	X	X	X	X	X	X	MACEPA, MoH, NMCC

No.	Activities	Indicator	Target	Estimated cost (USD)	Source of funds	Month												Potential implementation partners
						J	F	M	A	M	J	J	A	S	O	N	D	
3.8	Peer-reviewed articles related to scale-up of interventions and linking coverage and impact	Number of peer-reviewed articles produced	4	20,000	MACEPA			X			X			X			X	MACEPA, NMCC
	Subtotal			**1,177,000**														
Objective 4: To strengthen the M&E capacity of the National Malaria Control Programme at all levels																		
Capacity Development																		
4.1	Provincial and district-level M&E skills development (data management, malaria indicators, HMIS, survey methods, performance assessment, data use for decision making) - Malaria focal persons, information officer	Number of staff trained	100	49,000	MACEPA/ GRZ Grant						X				X			NMCC, MoH, WHO, MACEPA
4.2	NMCC – strengthen M&E core competencies including linkages with other programmes (HIV, TB)	Linkages with other pro-grammes strengthened		15,000	MACEPA			X			X			X			X	MACEPA, NMCC, WHO
	Subtotal			**64,000**														

The total M&E budget for 2008 is US$ 2,183,500

9.0 Programme Management Plan and Budget 2008

9.1 Priority areas

9.1.1 Organizational alignment and coordination

- Improve coordination at national, provincial, and district levels.
- Improve coordination with donor and implementing partners.
- Strengthen relationships with other Ministries.

9.1.2 Policy, programme planning and design

- Attend to ACT/RDT policy for community use, IRS statutory instrument for mandatory spraying, and ITN maintenance policy.
- Conduct comprehensive programmatic review and review current strategic plan.
- NMCC staff to participate in the provincial planning launch and review meetings.
- Facilitate staff travel within and outside the country.
- Ensure that policies and best practices are communicated to all levels.

9.1.3 Human resource management

- Improve staff competencies by providing training to at least six staff.
- Provide staff retention scheme (medical & educational scheme, salary top-up).
- Link HR needs in NMCC to MOH and National HR Plan.
- Put in place malaria focal point persons at provincial and district levels.

9.1.4 Financial management

- Provide quarterly performance and financial reports.
- Improve Global Fund absorptive capacity and ranking.
- Provide technical support, monitoring of utilization of funds at all levels.

9.1.5 Financing and resource envelope

- Establish overall financial needs and the gap during the period for NMCP.
- Coordinate resource mobilization to meet programme needs.
- Develop a SUFI business plan.
- Establish gaps in resources and implementation at the provincial and district level.
- Harmonize and coordinate all partners in programme implementation.

9.1.6 Program implementation

- Provide all running costs for effective implementation of the program.
- Rehabilitate and renovate selected offices.
- Procure computers, printers, and accessories and at least three (3) vehicles.
- Hold partners quarterly review meetings, coordinate Technical Working Groups.

9.1.7 Institutional capacity development

- Provide technical and financial support to NGOs and other stakeholders partnering with NMCC.
- Develop technical support and identify resource needs for training institutions to run courses in malaria disease and malaria control studies

Table 12: 2008 Programme Management budget

	Programme	Activities	Cost Items	Budget (K)	Output	Time Frame
A	**Organization, alignment and coordination**					
1	Improve coordination at provincial and district levels	Hold provincial & district meetings	Allowances, fuel & telephone, accommodation, stationery	9,483	Improved coordination at Provincial and District Levels	Semi-annual
2	Improve coordination with implementing partners	Hold partners meetings	Allowances, fuel & telephone, stationery	21,091	Improved coordination with implementing partners	Quarterly
3	Strengthen relationships with other Ministries	Hold meetings for other ministries	Allowances, fuel & telephone	72,164	Strengthened relationships with other Ministries	Semi-annual
		SUBTOTAL		**32,738**		
B	**Policy, Programme Planning and Design**					
1	Develop policy on CHW use of ACT/RDT	Facilitate policy formulation on ACT/RDS	Allowances, fuel & telephone	3,489	ACT/RDT policy for community formulated	3rd Quarter
2	NMCC staff to participate in provincial planning launch and review meeting	Participate in provincial planning launch and review meeting	Allowances, fuel & telephone, planning updates	7,907	NMCC programs included in provincial and districts annual plans	May – Aug

	Programme	Activities	Cost Items	Budget (K)	Output	Time Frame
3	Develop ITN maintenance policy	Hold ITN policy review meeting	Allowances, fuel & accommodation	5,517	ITN Policy in place	2nd Quarter
4	Coordination of NMCC TWG meetings	Facilitate the Technical Working Group meeting	Allowances, transport, fuel & telephone	6,374	Technical working group meeting held	Quarterly
5	Facilitation of staff travel with in and outside the country	Facilitate staff travel within and outside country	Allowances, transport, fuel & telephone	1,543	NMCC staff attend all meetings	Monthly
6	Ensuring that policies and best practices are communicated to all levels	Dissemination and maintain communication at all levels	Telephone, fuel, stationery, allowances, accommodation	6,143	Policies and best practices are communicated to all levels	Quarterly
		SUBTOTAL		**30,973**		
C	**Human Resource Management**					
1	Improve staff competencies by providing training to at least 6 NMCC staff	Train staff in various fields	Tuition, transport & exams fees	2,571	Improved staff competencies	Jan-Dec
2	Retain and motivate staff	Provide medical & education schemes, top ups	Education & medical scheme, top ups	12,429	Improved staff motivation	Monthly
3	Pay staff salaries on NMCC payroll & place staff on GRZ payroll	Pay staff monthly salaries	Salaries, stationery	115,778	Salaries paid monthly	Monthly

	Programme	Activities	Cost Items	Budget (K)	Output	Time Frame
		SUBTOTAL		**130,778**		
D	**Financial Management**					
1	Provide performance and financial reports	Provide technical support in FAMS to DHMTs/PHOs	Allowances, fuel, computers	**85,857**	Quarterly and annual financial reports submitted on time	Quarterly, Dec
2	Development of business plan	Needs assessment, programmatic review, strategic plan review	Consultant, stationery, allowances, venue	200,000	Business plan developed	April to June
			Subtotal	**285,857**		
E	**Program implementation**					
1	Operational costs	Provide running cost	Vehicle service and maintenance vehicles	30,857	Effective programme implementation	Monthly
			Telephone and fax services	714		Monthly
			Water bills	120		Monthly

	Programme	Activities	Cost Items	Budget (K)	Output	Time Frame
			Electricity Bills	257		Monthly
			Stationery	3,000		Monthly
			Cleaning materials, tools & uniforms	2,714		Monthly
			Refreshments for offices	343		Monthly
		SUBTOTAL		**38,005**		
2	Infrastructure, Equipment maintenance and procurement	Building materials	Building materials	68,371	Infrastructure, Equipments maintained	Jan-Dec
		Computers	Computers	36,429		Jan, May, Aug, Dec
		Printers	Printers	6,429		Quarterly
		Vehicles	Vehicles	111,429		March, Jun
		Heavy duty generator	Generator	25,971		July
		Procure Motor bikes	2 Motor bikes	14,280		Feb
		Subtotal		**262,915**		
3	Commemoration of National Days	Women's day	Logistics	2,143	Participate in national commemoration	March
		Labour Day	Awards & Logistics	5,857		May
		Independence Day	Logistics	1,429		October

	Programme	Activities	Cost Items	Budget (K)	Output	Time Frame
		Professional Secretary Day	Logistics	1,286		July
		SUBTOTAL		**10,715**		
F	**Institution Capacity Development**					
1	Provide technical and financial support to NGOs and other stake holders	Financial support to Institution & implementing partners	Grants, guidelines	72,857	NGOs & other stakeholders support malaria interventions	March-Dec
		Provide technical support to NGOs and stake holders	Allowances & fuel, guidelines	12,669	NGOs supported technically	Quarterly
		SUB TOTAL		**85,526**		
		GRAND TOTAL		**877,507**		

10.0 2008 Malaria Epidemic Preparedness and Early Warning System Action Plan

10.1 Introduction

Malaria epidemics are associated with either *Plasmodium falciparum* or *Plasmodium vivax* parasite species. In Zambia, *P. vivax* is not commonly found unless imported into the country. Over 98% of the parasite species found in the country is *P. falciparum*. This species is associated with severe forms of the disease. The country has three important vector species namely; *Anopheles gambiae sensu stricto (s.s), Anopheles arabiensis* and *Anopheles funestus* as a secondary vector. *An. gambiae* is one of the most efficient vectors in the world. This vector predominates in the country especially during the peak transmission period of November to April every year. Based on a combination of altitude and temperature information, an unstable malaria area appears to be most probable on the plateau. Districts that are located on the plateau tend to experience a break in transmission due to cool temperatures during the cold, dry season of May to August. This results in low herd immunity of the resident population in these areas. This area constitutes an epidemic zone.

From the above information, a fact emerges that all the precursors of a malaria epidemic exist in Zambia. In addition, natural disasters like floods, droughts and population displacements which could precipitate an epidemic by altering the eco-epidemiological situation do occur from time to time, the last being in 2007 when the country experienced severe floods in 11 districts country-wide. The country has a strong malaria control programme based on RBM principles, but it is still scaling up most of the preventive interventions to meet or exceed the Abuja targets. The investment that has gone into the programme is enormous, with funding from the Government of the Republic of Zambia (GRZ), GFTAM, World Bank, PMI, MACEPA, and other bilateral partners. A breakdown in any of the interventions could lead to a malaria epidemic or, correctly put, an upsurge of malaria. A malaria epidemic is always associated with high mortality and morbidity rates. Such a situation would negate all the progress made by the Malaria Control Programme so far. The Action Plan on malaria epidemic prevention for 2008 is an attempt to make it possible to detect and forecast malaria epidemics early so as to put in place prevention and control measures to avert the negative impact of a malaria epidemic.

10.2 Objective

The objective is to reduce morbidity and mortality rates arising from malaria epidemics to below 5% of the average figures with the target of detecting malaria epidemics within two weeks of occurrence and institute measures to control the epidemic within less than two weeks from the time of detection.

10.3 2008 activities

These activities have been divided into three parts:

- Strengthening malaria epidemic preparedness.
- Set up and strengthening malaria early warning systems.
- Establishing emergency funding.

Part 1: Strengthening Malaria Epidemic Preparedness

Preparedness is all about being prepared to control an epidemic of malaria should it occur. With a good Early Warning System (part 2 below) an epidemic can be detected early. There must be an emergency plan with guidelines in existence. Logistics and trained personnel should be available or readily mobilized. Control measures must be instituted early enough before the epidemic curve reaches its peak

Part 2: Setting up and strengthening a Malaria Early Warning System

Malaria Early Warning Systems provide incremental early warnings based on known meteorological (rainfall, temperature), environmental, social, or occupational (e.g. migration, agricultural developments) risk factors and other potential indicators, in order to enhance malaria epidemic preparedness and prevention.

Continuous monitoring and measurement of the precursors and vulnerability trends and dynamics will make it possible for the abnormal situation (epidemic) to be identified early enough for contingency plans and appropriate mitigatory stakeholder response mechanisms to take effect in a timely manner.

Prediction is possible only if (i) sufficient information about past events is available; (ii) information can be quantified as numerical data; and (iii) aspects of the past pattern are highly likely to continue into the future. Early warning indicators such as temperature and rainfall can predict the time and place of an epidemic; population vulnerability indicators will predict the severity of the disease outcome in the event of an epidemic. Epidemiological indicators are important in confirming both the onset and occurrence of the epidemic.

Part 3: Emergency funding

In the event of an epidemic being detected, there should be readily available funding to meet the operational cost of implementing a control plan. Logistics will have been procured already under Part 1. Each epidemic-prone district will keep a list of names and their contact addresses. The list should include clinicians, nurses, health officers trained in vector control, health personnel able to educate and mobilize communities, laboratory technicians, pharmacy personnel and drivers. The plan will include other components, e.g., vector control, IEC, etc. For details, reference should be made to the epidemic preparedness guidelines. (Meetings should be held regularly to update the plan).

Table13a: 2008 Emergency and malaria epidemic preparedness plan

Activity	Target	Partner	Budget USD	Q 1	Q 2	Q 3	Q 4
1. Procure logistics for epidemic control *(I. Provision of specifications* *II. Processing of tenders* *III. Procurement and distribution)*	2000 ITNs, 1,500 RDTs, 300 Hudson spray pumps & 2,000 sachets of insecticides @ (pumps & spares -165,000 $, PPE - 15,000 $, ITNs - 14,000 $, insecticides – 20,000 $, RDTs – 1,000 $, Distribution costs- 15,000 $)	GRZ WB WHO UNICEF	230,000		X	X	
	Buffer stocks of antimalarial drugs and other essential drugs for epidemic control		20,000	X	X		
	Procure a vehicle for emergencies and supervision (4 x 4 WD) and operational costs i.e. fuel and minor repairs	WB	45,000		X		
2. Selection of central points for the storage of epidemic control logistics	Needs assessment in the epidemic prone districts and provinces. (storage facilities and capacities, staffing etc), possibility of procuring metal containers for storage of commodities	GRZ WHO UNICEF	25,000	X	X		
3. Conduct supportive supervision and training in epidemic preparedness and control							
3.1 Conduct support supervision for epidemic prone and emergency areas	Supervision done in 10 epidemic prone districts	GRZ WHO UNICEF	5,000	X	X	X	X
3.2 Conduct support supervision in refugee camps	Supervision done in 4 refugee camps	GRZ WHO UNICEF	5,000	X	X	X	X
3.3 Conduct rapid assessment of areas affected by floods or drought or population displacements	NMCC staff to be a member of the VAC of the DMMU when assessing impacts of emergencies	GRZ WHO UNICEF	5,000	X	X		X
3.4 Hold workshop in epidemic preparedness and control	Train 40 senior district staff and 10 PHO staff	GRZ	75,000		X	X	

Activity	Target	Partner	Budget USD	Q 1	Q 2	Q 3	Q 4
3.5 Training of DRRTs in the IRS and use of ITNs where IRS teams do not exist in the epidemic prone and emergency areas	Train 15 DRRTs	GRZ WHO UNICEF	25,000			X	
4. Revise, print and disseminate epidemic preparedness guidelines	1,000 copies printed						
4.1 Conduct guidelines revision workshop	Workshop conducted	GRZ UNICEF	4,000				
4.2 Print 1,000 copies of guidelines	1,000 copies printed	GRZ UNICEF	20,000				
4.3 Hold an epidemic guidelines dissemination workshop	One day dissemination workshop for partners and stakeholders held	GRZ UNICEF	25,000	X			
5. Support collaborative meetings to strengthen epidemic control in country and regionally	Maintain advocacy among stakeholders involved in emergencies / disasters operations in the country and sub region						
5.1 Hold malaria epidemic preparedness meetings	6 working group meetings to be held	GRZ WHO	5,000	X	X	X	X
5.2 Attend SARCOF meeting	Attendance at international meetings on rainfall seasonal forecasting	GRZ UNICEF	4,000			X	
5.3 Attend MALOF meeting	Attendance at international meetings on malaria seasonal forecasting	GRZ WHO	4,000			X	
SUBTOTAL			**497,000**				

Table 13b: 2008 Malaria early warning system plan

Activity	Target	Partner	Budget USD	Q 1	Q 2	Q 3	Q 4
The Process							
1. Identification of malaria epidemic prone areas & areas with emergency and internally displaced people (populations broken down by age and sex)	Target areas and populations mapped and demography known - (To be done through a desk review for demography indices) through consensus meetings to be held	GRZ	2,000	X	X		
Establishing a sentinel surveillance system							
2. Selection of health facilities & at least one district hospital as sentinel sites	Conduct a needs and situation analysis for selection of 20 health facilities (15 in epidemic prone areas and 5 in emergency areas) & 10 hospitals	GRZ WHO UNICEF	25,000	X	X		
3. Selection of epidemic thresholds to be used by the DHMT, HC, hospital	Desk review, involving stakeholders, of appropriate thresholds for use at different levels of the health system	GRZ	2,000				
4. Training of district health staff in epidemic threshold calculations and use within the context of preparedness, detection, prevention and control of malaria epidemics	Train 30 staff from the health facilities and district hospitals (sentinel sites) in the calculation and use of thresholds	GRZ UNICEF WHO	20,000		X	X	
5. Selection of indicators to be used in the Early Warning System	Establishing a uniform system of data collection on indices such as • Entomological • Meteorological • Epidemiological • Social and occupational (migration & development projects) • Vulnerability	GRZ	2,000				

Activity	Target	Partner	Budget USD	Q 1	Q 2	Q 3	Q 4
6. Establishing links with other sectors for the collection of data for monitoring the indicators	Networking established with key sectors (CSO, DMMU, ZMD, UNHCR, for easy access to vital information	GRZ WHO UNICEF	10,000	X	X	X	X
7. Ensure timely, accurate and completeness of data collection for early warning – This will require frequent supervision and signing of MoUs	Agreement on the frequency of data collection from within the health facilities, hospitals, DHMTs and outside the health sector GRZ	WHO UNICEF	5,000			X	X
Logistical requirements							
8. Establishing a computerized malaria epidemic sentinel surveillance system (malaria EWS)	Procure 30 desk top computers, 30 printers, 4 laptops and operational costs of maintaining an e-mail system	GRZ WHO UNICEF WB	90,000			X	X
	Procurement of 6 radio equipment, installation and maintenance in some districts and at NMCC	GRZ WHO UNICEF WB	100,000			X	X
	Database design for epidemic preparedness data – stakeholder meetings to be held to reach consensus	GRZ WHO UNICEF	5,000			X	X
9. Creation of reporting forms (formats) and a database and it's management (EWS)	Databases created and managed at NMCC and district levels in epidemic prone areas. The databases to include data from outside the health sector	GRZ WHO UNICEF WB	10,000			X	X
10. Strengthening monitoring and evaluation for malaria epidemics	Frequency of health facility data reported to the district, provincial (for sentinel sites) and national level to be improved upon to conform to 7 or 14 days especially during peak transmission season	GRZ WHO UNICEF WB	4,000			X	X
SUBTOTAL			**275,000**				

Table 13c: Establish emergency fund

Activity	Target	Partner	Budget USD	Q 1	Q 2	Q 3	Q 4
Emergency fund							
To have malaria emergency funding to handle operational issues in case of an epidemic or emergency. *When there no epidemic or emergency the funds could be transferred to the following year*	Availability of funds to cover operational costs during an epidemic	WB WHO GRZ UNICEF	200,000			X	
Emergency plan							
Each epidemic-prone district will keep a list of names and their contact addresses.	All epidemic-prone districts and emergency districts have a malaria epidemic preparedness plan	WB WHO GRZ UNICEF	10,000	X	X		
SUBTOTAL			210,000				
GRAND TOTAL			**982,000**				