Ministry of Health

2007 Action Plan

Actions for Scale-up for Impact on Malaria in Zambia

In support of the
National Malaria Strategic Plan
2006-2011

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Preamble

The National Malaria Strategic Plan for 2006-2011 represents a bold, evidence-based approach for bringing the enormous health and economic burden of malaria in Zambia under control. Malaria has been the leading cause of childhood death, a major contributor to poor birth outcomes, the leading cause of school and workplace absenteeism, and by far the lead cause of health facility attendance and cost.

Our country has demonstrated leadership in addressing malaria. A National Malaria Strategic Plan (NMSP) was developed initially for 2000 to 2005 and more recently for 2006-2011. This new NMSP for 2006-11 is accompanied by 3-year implementation plan and attendant plans and guidelines for specific interventions and for cross-cutting issues such as informing and mobilizing communities and monitoring and evaluation.

Recent years have seen substantial changes in the national effort including:

- Changed national drug policy.
- Increasing experience with insecticide treated mosquito nets (ITNs) and indoor residual house spraying (IRHS).
- Expanding and strong implementing partnerships with antenatal care, child health care, and a variety of national and community organizations in both the public and private sector.
- A national RBM Partnership which is assessed to be one of the strongest in the region.

This document is an action plan for 2007 for rapidly scaling up population coverage of the essential malaria interventions to levels at which disease and economic burden will be markedly reduced. It was developed in a systematic process of reviewing experience in 2006, identifying discrepancies between what was planned and what was achieved, and identifying critical and feasible activities for 2007.

The planning process included visits to Districts and communities to review local action and challenges and a consultative set of meetings that included a variety of partners and health leaders from District, Provincial, and National levels. The process also identified key issues that require national leadership and partner engagement to resolve in order to facilitate effective action to reach the Zambian people.

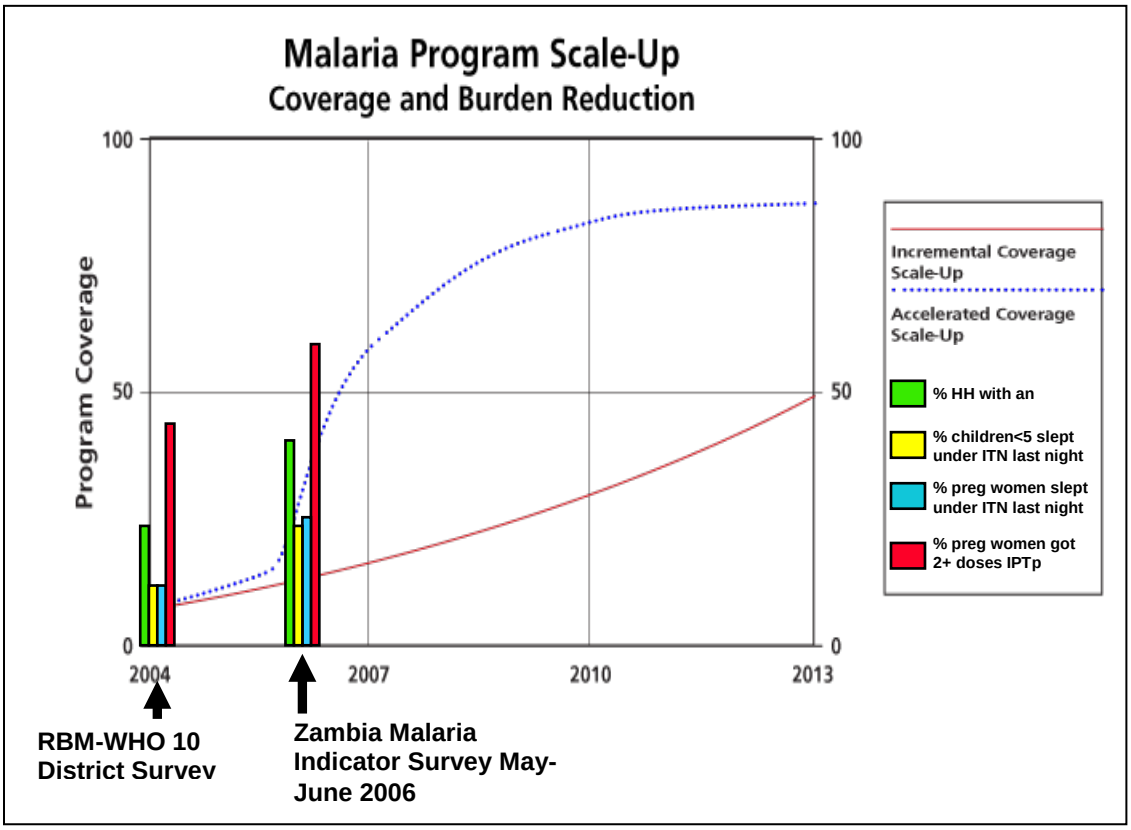
The action plan is bold, highly realistic, and feasible. Success is contingent on the national commitment to addressing malaria and on the coordination in the RBM Partnership to rally around the consensus plan and its objectives and approaches.

Executive Summary

The 2007 Action Plan for Malaria Control is a working document that aims to guide programme implementation activities at the National, Provincial and District levels. The Action Plan has been designed to address three key issues during 2007:

- Establishing a set of actions for malaria control that are both ambitious in terms of achieving coverage scale up of the package of proven malaria control interventions and realistic in terms of being feasible within known resource opportunities;
- Linking national malaria control planning with the entire cycle of health systems planning in Zambia with particular attention to supporting District planning in the future; and
- Establishing a systematic review of malaria control interventions in Zambia such that future needs and opportunities (e.g., Global Fund Round 7 application and U.S. President's Malaria Initiative resources) might be well channelled to address key gaps in malaria control in Zambia.

The 2007 Action Plan takes account of current progress in malaria control scale up in Zambia. For example, the following graphic shows the recent progress and the distance still to go for coverage of key prevention interventions. While improvements have been seen in prevention, prompt effective case management has remained stable and needs attention.



The 2007 Action Plan also takes account of key constraints that were identified in the recent past whereby specific systems have required substantial improvement including

procurement of key commodities (e.g., drugs, diagnostics, insecticide-treated mosquito nets, pesticides and sprayers for indoor residual spray, and others) and supply systems and communications to assure proper deployment of resources. In addition, work in education and behaviour change have been required to improve key intervention coverage areas – e.g., ITN nightly use is approximately one-half the rate of ITN ownership, thus efforts to improve intervention use is critical.

The 2007 Action Plan identifies key actions that need to occur in the following areas:

- Insecticide treated nets (ITNs)
- Indoor residual house spraying (IRHS)
- Case management
- Information education and communication/behaviour change communication (IEC/BCC) and advocacy
- Monitoring and evaluation
- Operations research
- Programme management

The main objective of the **ITN** work area for 2007 is to achieve 70% coverage of households with nets by distributing 3 million nets in 2007, retreating I million ITNs in cooperation with measles campaigns, and maintaining this high level of coverage. The activities planned in 2007 include mass distribution of nets through campaigns, the use of the equity system as well as ANC and other EPI opportunities. There are planned re-treatment exercises and net sustainability through community malaria booster response with strong partner coordination in all activities.

For **IRS**, the objective driving planned activities is to increase the coverage among eligible populations from 75% to 85% (approximately 700,000 households in 15 districts by 2007). Activities include ensuring sound coordination at all implementing levels and prioritizing adherence to environmental monitoring and safeguards. There are planned activities to streamline procurement by expediting stock management and quantification, strengthening storage facilities' capacity to conform to local and international standards, and training of storekeepers. In addition, efforts will be made to strengthening logistics and information management and availability of transport, geo-mapping and standardization of information collection. Entomological and parasitological monitoring are planned and impact studies, as well as resistance management strategies including quality assurance, have been prioritized. Finally, activities are planned to reinforce social mobilization, improve community participation and awareness through different media.

The objective for **Case Management** is to ensure that 80% of patients with malaria are appropriately diagnosed and treated within 24 hours by 2008. In 2007, seven main activities are outlined to be undertaken towards the achievement of this target:: improve quality of case management in the private sector; roll out home based management of malaria using cIMCI in the 72 districts by the end of 2007; roll out current treatment guidelines to all private practitioners country wide; strengthen severe malaria recognition and management; provide easy, timely and accurate malaria diagnosis to guide treatment in all health facilities; strengthen drug logistics management; and scale up malaria in pregnancy management via FANC in all 72 districts by end of 2007. For malaria in pregnancy the objective is to have at least 80% of pregnant women have

access to a complete package of interventions, which are three full courses of IPT, use of ITNs, and anaemia reduction and treatment.

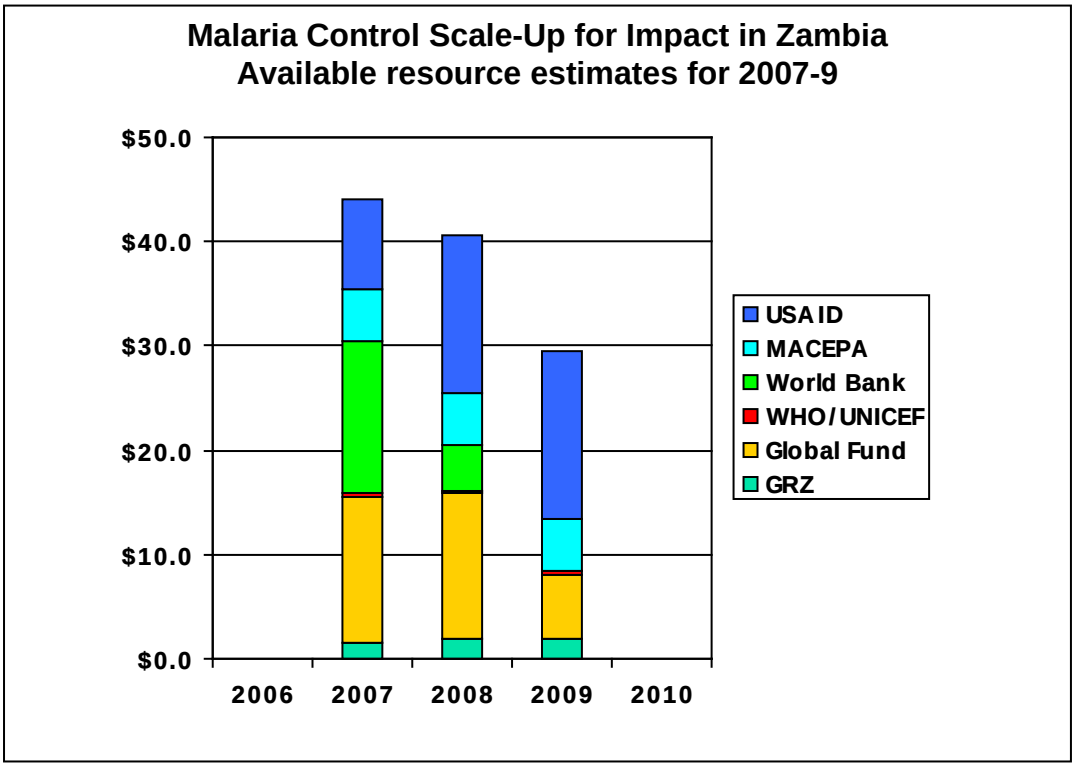
The objectives of **M&E** are to strengthen the capacity at all levels, provide timely and useful information that will guide programme management and strengthen coordination from the national level. The planned activities for 2007 include improving capacity at all levels and strengthening coordination at the national level. There are also plans to improve district M&E performance, support programme monitoring, conduct targeted evaluations, and improve on reporting.

For **IEC/BCC**, the objective is to reduce the burden of malaria morbidity and mortality at community level through behaviour change communication. The specific activities include BCC programme development research, distribution of communication strategy in 72 districts by end of 2007, and capacity building for BCC and production of IEC materials. Additional activities include support to BCC proposals, production of documentaries in local languages, mobilization of key local partners, and strategic commemoration of important days such as African and SADC malaria.

In **Operations Research**, the objective is to provide timely, sound evidence to guide implementation of malaria control and inform decision making. The broad areas of identified work are: identification of priority areas of and stimulation of relevant operational research; build capacity for OR; increase stakeholder participation in research; ensure timely dissemination of research findings; and advocate for the use of research results to guide policy making and programme management.

Finally, under **Programme Management** the objective is to achieve effective programme management through strengthening national, provincial and district health system capacity to effectively and efficiently plan, implement and manage malaria control efforts in Zambia. The main work areas identified for 2007 are to improve organizational alignment, strengthen programme planning and design, and strengthen human resource management. Additionally, there are plans to improve on financial management, improve on procurement and supply chain management, strengthen coordination and partnerships, better manage financing, and increase the resource envelope. The plan also identifies activities in communications, logistics and infrastructure support and institutional capacity building.

The following figure shows summary estimates of available resources in 2007 to 2009 from each of the major donors (these are simply estimates for illustrative purposes based on reports from these donors). Of note, there are substantial resources for 2007, but diminishing committed resources for subsequent years and new funds from the Global Fund or other sources will be required to sustain key actions for malaria control in Zambia.



It is important to note that these planned activities are critical and they need to be resourced (financial and human), implemented, monitored and progress reported. The concept of scaling up for impact relies on sustained funding to boost levels of implementation to ensure high coverage in all intervention areas and improve on outputs and outcomes to lead to impact at population and household level.

Section 1. Introduction

This 2007 Action Plan is based on the National Malaria Strategic Plan (NMSP) and global targets (Abuja Targets, RBM Global Strategic Plan, and Millennium Development Goals). The NMSP endorses the following vision, goals, and commitment for malaria control in Zambia:

1.1 The Vision: "A Malaria-Free Zambia."

The Government of the Republic of Zambia believes that every Zambian has the right to access highly effective malaria preventative services and curative care delivered as close to the household as possible in order to ultimately achieve a malaria-free Zambia.

1.2 The Goals

- As a result of implementation of the Plan, there will be a reduction of malaria incidence by 75% by the end of 2008 and deaths due to malaria will be significantly reduced by the end of 2011.
- Through the attainment of a 75% reduction in malaria incidence, malaria control will ultimately contribute to the reduction of all-cause mortality by 20% in children under five.
- Malaria control will improve the main health indicators, as well as provide economic benefits at household and national levels.

1.3 The Commitment to Rapid Scale-up for Impact

Zambia is prepared to make dramatic progress during 2007 in reducing the health and economic burden attributable to malaria. There is a strong drug policy for the provision of a highly effective artemesinin-based combination therapy drug (Coartem™) for prompt case management; a package of interventions is being rolled out to reduce the burden of malaria in pregnancy; transmission reduction using insecticide-treated mosquito nets is being scaled up, (ITNs); and an expanded and targeted approach is being implemented for indoor residual spraying (IRHS).

These interventions, when accompanied by strategic IEC/BCC and advocacy, robust and responsive M&E, and rigorous programme management, collectively are bringing about a rapid and substantial impact on malaria illness and deaths. The progress to date in malaria programming in Zambia has strengthened the confidence of many donors to commit to supporting malaria programme scale-up. The Global Fund, the World Bank, the Bill & Melinda Gates Foundation, several multi-lateral and bilateral partners, and most recently the U.S. Presidents Malaria Initiative (PMI) have agreed to partner with the NMCC to embark on rapid programme scale-up. In addition, technical partners, such as WHO and UNICEF, have pledged to continue to support these efforts with significant technical expertise to guide policy and programme implementation.

Section 2. Background

The National Malaria Control Centre coordinated a systematic review of accomplishments and challenges from 2006 and a robust planning process to develop an updated plan for 2007.

2.1 Malaria control accomplishments and challenges in 2006

Promoted national attention on malaria

Promoted action and attention through extensive work with Africa Malaria Day, SADC Malaria Week, and Child Health Week. Continued engagement with government leaders in the health and other sectors and with the growing number of partners in Zambia.

Leveraged existing and new resources

Successfully resolved the change in Principle Recipient from the Central Board of Health to the Ministry of Health as a consequence of restructuring within Zambia. Established procurement mechanisms to purchase Long-lasting ITNs (LLITNs) with World Bank Booster and Global Fund resources. Procured and distributed Coartem for all districts for the 2006-2007 transmission season. Used MACEPA resources in planning and monitoring and evaluation activities including the conduct of the Malaria Indicator Survey (MIS). Maintained strong support from bilateral donors and from the government of Zambia and was chosen as a U.S. President's Malaria Initiative country in December 2006 (for receipt of new resources beginning in 2008).

Completed a robust planning cycle

Developed the 2006 Annual Action Plan and conducted the mid-year review of implementation successes and challenges. Updated the M&E plan and developed a final draft for the IEC/BCC/advocacy plan.

Implemented malaria prevention and control widely

There were five mechanisms for accomplishing this: 1) Distributed ITNs in 3 focused efforts (district and community population-based campaigns to achieve very high coverage; highly subsidized distribution via antenatal clinics and child health clinics for pregnant women and children under-5 years of age; and support for sales of ITNs to establish commercial markets). 2) Conducted indoor residual household spraying (IRHS) in 15 districts. 3) Expanded new first-line drug access to all districts; 4) Expanded malaria prevention package (ITNs and IPTp [intermittent preventive treatment in pregnancy]) in pregnancy to all districts; 5) Monitored progress for reporting to partners.

During 2006, important steps were taken to achieve national targets and these are highlighted below:

ITN coverage and use

More than 80% of households with an average of 3 ITNs per household and >80% of household members using them. ITNs were obtained for free mass distribution in late 2005 and early 2006 to begin the process of national scale up and LLITNs (long lasting ITNs) for antenatal clinic (ANC) distribution was expanded in 2006 to support the move nationally to reach all 9 Provinces with ANC distribution – this will become one of the cornerstones for maintenance of high ITN coverage in the future. The

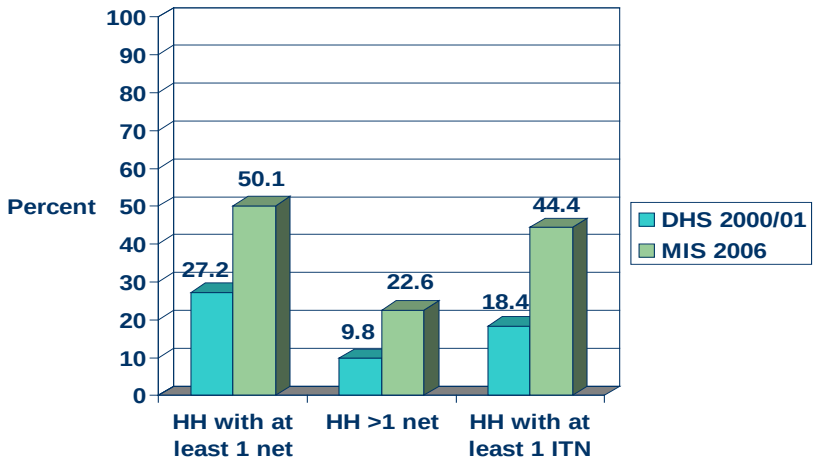
following data fro the Malaria Indicator survey shows current ITN coverage status and progress since 200-2001.

ITI

Numer
Denom

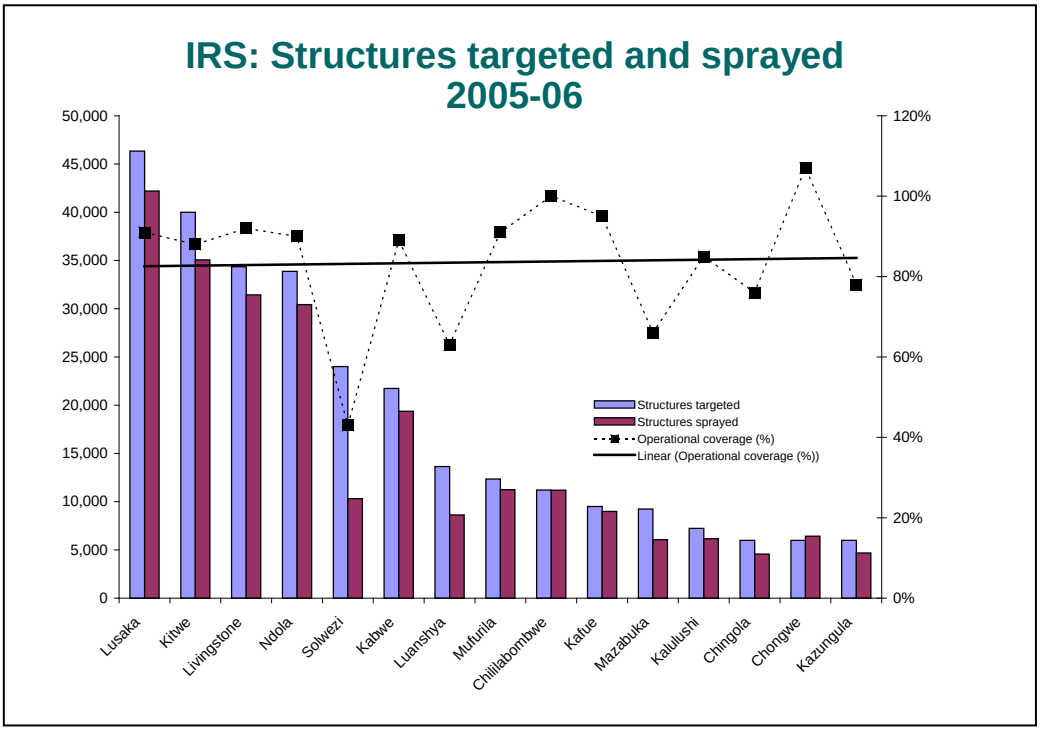
Source: NI

DHS 2000/01 Household ITN and Net ownership compared with Malaria Indicator Survey 2006



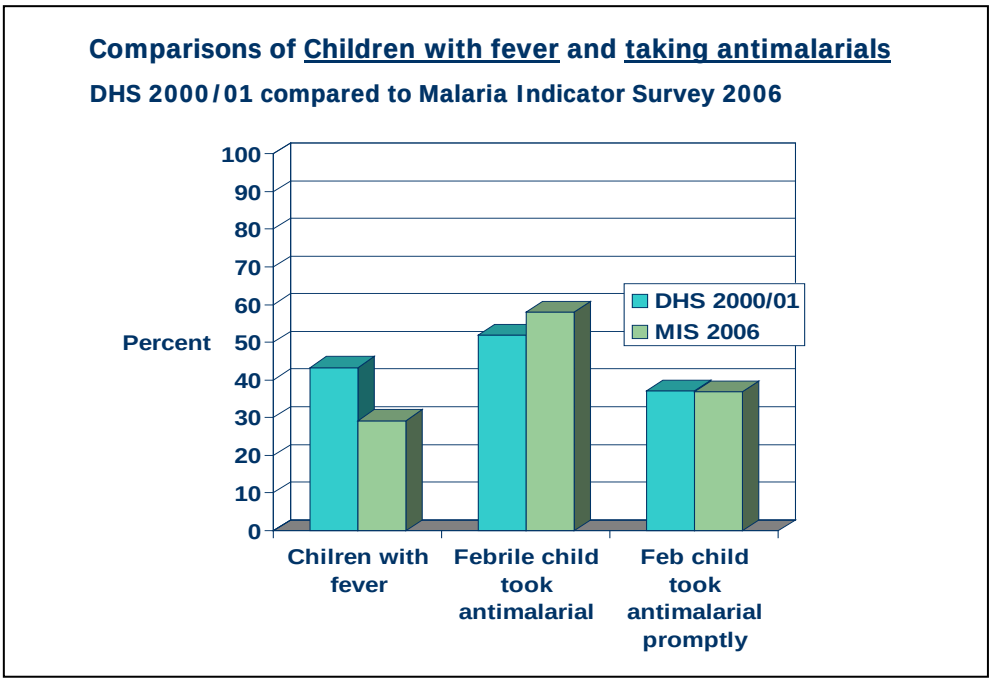
IRS coverage

More than 85% of eligible households in 15 selected Districts (of the 72 Districts in Zambia). This work is being strengthened through evaluation of coverage and mapping systems development for future years to assure clarity of household eligibility and good coverage information.



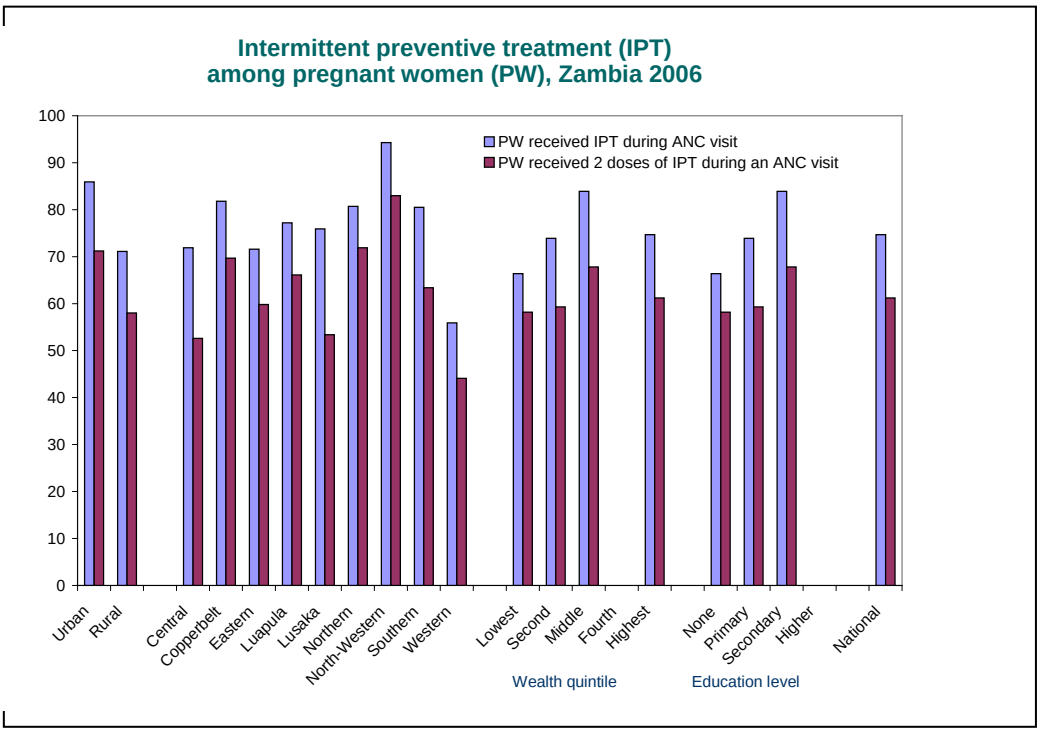
Case management

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. And, where possible, these malaria patients receive a laboratory diagnosis (microscopy or rapid diagnostic testing) prior to treatment. As shown by the figure below, rates of prompt and effective treatment in young children has been stable during the last 6 years and much work remains for 2007 to ensure that ACTs are available in the community through both facility and community health worker outreach.



Prevention in Pregnancy

More than 80% of pregnant women receiving 2 or more doses of IPTp and sleeping under an ITN. This work is largely supported by the Reproductive Health Unit in the Ministry of Health and their partners. Current ITN coverage in this population is similar to coverage in households in general (20-25% of pregnant women sleeping under an ITN). IPTp coverage (≥2 doses during pregnancy) has exceeded Abuja targets during 2006 – shown in the graphic below -- but needs to go from 60% to 80% in the coming year.



IEC/BCC

To help reach the targets for each of the interventions above through improved communication and behaviour change. With the new IEC/BCC plan developed in 2006 and the recognition that specific behaviours need strengthening (e.g., ITN nightly use; access to houses for IRS; availability and use of ACTs for treatment of malaria), Zambia has much work to do in IEC/BCC during 2007.

Monitoring & Evaluation

Strengthen the national coordination of malaria M&E, improve reporting on malaria control performance, and assess scale-up progress for the interventions and for the overall impact. During 2006, much work on M&E has occurred including:

- National Malaria M&E plan (working document) was updated.
- Maintained contact with the RBM Monitoring and Evaluation Reference Group (MERG). Hosted RBM MERG meeting in Livingstone.
- Participated in the National MoH Coordinating M&E meetings.
- Participated in the review of the HMIS.
- Updated 10-sentinel district Malaria Information System; district profiles developed.
- Developed a framework and plan for strengthening district performance monitoring through routinely reported malaria information.
- Conducted the Zambia National Malaria Indicator Survey (MIS) 2006 and results were disseminated in Zambia and internationally.
- Reporting obligations were fulfilled for the Global Fund, World Bank, MACEPA, and others.
- Collaboration with Zambia Demographic and Health Survey (DHS) 2006-2007 development.
- Collaboration with other Ministries (e.g., with the Central Statistical Office on the MIS, SAVVY).
- Capacity strengthening training of UNZA MPH students in MIS; district IRHS post-spray M&E development; district IVM M&E strengthening.

2.2 Systematic Review and Analysis for the Action Plan

The planning process for the action plan included the following steps:

- Pre-meetings took place for planners to review the 2006 Action Plan (which had been developed in February 2006), 2007 District Action Plans, and the 2006 mid-term review (which took place in August 2006) and identify key issues and actions for 2007. This process enabled planners to identify the key differences between what was planned and what did or did not happen – and the reasons for any discrepancies. Findings were then presented during the planning meeting to inform the final planning process.
- Teams met in a series of group meetings and plenary sessions to review and finalize the action plans for the following areas: ITNs, IRHS, Case Management

& Prevention in Pregnancy, IEC/BCC/Advocacy, Monitoring and Evaluation (M&E), Operations Research, and Programme Management.

- Teams met with NMCC and partners to review field findings and develop a framework and to plan a series of meetings to review and revise the 2006 Action Plan.
- Meetings were held over four days to engage National, Provincial, and District staff and Zambia RBM partners in development, review, and finalisation of plans.

Key challenges were identified and include:

- Lack of timely procurement of commodities (ITNs, materials for IRHS, drugs, diagnostics) led to critical setbacks and limited coverage during 2006.
- Marked growth in diverse reporting responsibilities due to diverse requirements from existing and new donors.
- Inadequate or delayed engagement of available partners for implementation.
- Raised expectations in districts and communities that were not always met in a timely fashion or which created confusion because of inadequate communication.
- Planning process needs strengthening to keep all partners engaged.

Section 3. 2007 Action for National Scale-up of Malaria Control in Zambia

3.1 Insecticide-treated mosquito nets (ITNs)

Summary

This year, malaria control in Zambia will build upon the progress of previous years toward the goal of “A malaria free Zambia”. The country will continue with the strategic plan developed to meet the Roll Back Malaria targets by scaling up interventions aimed at reducing the disease burden. ITNs continue to be a key component of this strategic plan. The target this year is to distribute 3 million long-lasting ITNs (LLITNs), with the objective of reaching at least 70% coverage of households with 3 ITNs. This objective will be accomplished through mass distribution, antenatal care programmes, the equity distribution program, and the community malaria booster response. With increased funding and net procurement, this objective is within reach.

Objective:

80% of all people will sleep under an insecticide treated bednet by December 2008.

Objectives for 2007:

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

Action and Progress during 2006

The objective for 2006 was to distribute three million nets by November 2006, representing approximately 60% ITN coverage by household. However, only an estimated 1,808,505 nets were distributed; 802,467 nets to antenatal care clinics, 986,673 through the mass distribution program, and 19,366 through the equity distribution program. This represents an achieved coverage of 39%. Although procurement and delivery were hampered by funding delays, significant progress was made in the second half of the year to improve efficient procurement, delivery, storage and distribution. Reorganization that took place toward the end of 2006 at the Ministry of Health and the NMCC will aid in this process in 2007, as will the recruitment of a Malaria Logistics officer.

Actions to be taken in 2007

According to the latest available procurement data, 2,986,200 LLITNs are expected to reach Zambia in 2007. Of this, 1,797,000 LLITNs will be distributed through the mass distribution program, 585,000 to vulnerable populations through the equity programme, and 489,000 to pregnant women and children under 5 through the MIP programme. With strengthened BCC strategies, the programme will achieve the objective of a 60% ITN utilisation rate. Together these objectives represent significant progress toward achieving the NMSP objective of reaching a minimum of 80% utilisation by December 2008.

Maintenance of coverage levels will be accomplished through a three-pronged approach, which includes the equity programme, commercial sector, and antenatal care. Distribution through the Expanded Programme for Immunization (EPI), as a component of the antenatal care program, will take place during Child Health Week in coordination with the measles campaign. In addition to these avenues, maintenance will also be aided by the re-treatment of one million ITNs with KO Tab1-2-3 during the measles campaign.

Detailed description of activities, targets, time frame, costs, gaps, and partner responsibilities

See Table 2 for a summary of activities, targets, time frame, costs, gaps, and partner responsibilities.

Support needs for District Action Planning

Five areas have been identified that need extra funding and support for the Districts:

1. **Transportation** is essential for the distribution of LLITNs, including transport of the nets and of health workers from both the central and local level for monitoring and supportive supervision.
2. **Technical support** is required to ensure that the ITNs reach the targeted households.
3. **Storage facilities** must be identified and secured.
4. **Personnel** at the district level must have the proper training to ensure that they are able to carry out all LLITN-related functions, such as net retreatment and data collection and analysis.
5. **Supplies** such as jugs and large dishes are needed for proper retreatment of nets.

Districts also are responsible for encouraging ITN utilisation. In order to achieve this, districts need an allocation for communication activities at the community level which will include production and airing of radio spots, sensitization through drama and the use of Neighborhood Health Committees (NHCs) and Community-based Distribution (CBD).

Support needs for Partner Action Planning

One of the key issues that must be addressed in the 2007 ITN plan is communication and support between partners. Partners must notify the NMCC of the number and type of ITNs being distributed in addition to the target group of such distributions. Partners must recognize ITN distribution areas of other partners to avoid overlap and market saturation. In turn, the NMCC must prioritize the collection and dissemination of ITN databases to all relevant partners through its website (www.nmcc.org.zm), email, and quarterly meetings at both the national and district levels.

Issues for new donor resources including Global Fund Round 7 Application and Presidents' Malaria Initiative planning

While substantial resources have been brought to bear on the procurement of LLITNs, more ITNs still must be obtained for Zambia to meet the goals of 80%

coverage as defined in the NMSP. Table 1 displays the estimated gap for scaled up LLITN procurement and distribution efforts in 2007.

Table 1. ITN Funding Gap

	ESTIMATED COST (US$)	AVAILABLE FUNDING (US$)	GAP
ITN Component Total	21,765,053	17,505,614	4,259,039
1. Mass distribution	11,144,006	10,372,543	771,463
2. Equity	201,300	88,700	112,600
3. Malaria in Pregnancy & EPI	5,785,858	3,033,998	2,751,860
4. Retreatment	1,868,761	1,774,374	93,987
5. Sustainability	2,765,129	2,236,000	529,129

Retreatment Gap

The 2007 objective of treating one million ITNs with KO Tab1-2-3 is a cooperative effort between NMCC, partner organizations, and the Ministry of Health child health unit. This objective requires coordination between the malaria focal person overseeing retreatment at the district level, the Universal Child Immunization (UCI) secretariat, and the maternal and child health section of district clinics. Through synergy with the IEC/BCC/Advocacy working group, these organizations are responsible for ensuring that information and educational materials regarding the retreatment of ITNs during the measles campaign are disseminated at the local level. At the district level, retreatment supplies such as jugs and dishes represent a gap of $60,000.

Security Gap

In order to avoid theft or misuse of LLITNs it is necessary to budget for security precautions. An amount of $75 per district, or a total of $2,550 for all 34 districts receiving nets under the mass distribution campaign in 2007, has been budgeted and is part of the gap in funding.

Maintenance Gap

Following achievement of increased coverage levels through mass distribution, it is critical to pursue a robust programme of ongoing LLITN distribution activities to maintain the high LLITN coverage levels. A key component of maintenance in 2007 is the formation of an Expanded Programme for Immunization (EPI) working group composed of officers from the EPI programme at the Ministry of Health, MACEPA, UNICEF, SFH, and NMCC. The working group will insure that mothers with children under age five receive an LLITN after their child receives immunizations through the EPI program. One hundred thousand LLITNs have been allocated and budgeted under the Malaria in Pregnancy for distribution through EPI. In addition, NMCC, SFH, MACEPA, MoH, EPI, and District Health Management Teams (DHMTs) will be sending delegates to Malawi in order to learn from that country's experience with distribution under the EPI programme. Together with antenatal clinic distributions, the EPI represents a second avenue whereby LLITNs will reach vulnerable populations.

To avoid duplication, antenatal cards and under five cards will note whether a mother/child has already received an LLITN through MIP, so that the EPI programme can distribute nets accordingly.

Looking toward the future

Improving Communication

It is self evident that communication between the NMCC and all ITN partners is an essential component of Zambia's ITN distribution program. The NMCC, as the secretariat responsible for overseeing the coordination between the ministry of health and all malaria control programmes, must be assertive and proactive to ensure that all ITN partners are communicating. The objective for 2007 is to improve communication among NMCC and ITN partners through several actions:

- Initiate quarterly meetings between all ITN partners at the national and local level.
- Finalize, publish, and disseminate National Item Guidelines.
- Add contact information of all ITN partners to the NMCC website.
- Compile an email list for all ITN partners to facilitate regular email updates.
- Publish databases on the NMCC website.

Improving Utilisation

Improving ITN utilisation is another major priority in 2007. The IEC/BCC/Advocacy and ITN working groups have jointly established a target of 60% ITN utilisation in 2007. This target represents significant scale-up from the 23% achieved in 2006.

To achieve this target, several objectives have been set. First, it will be important to establish at the district and national level an ITN utilisation working group. The group will be composed of representatives from the following organizations; Ministry of Food and Fisheries, Ministry of Education, Zambia Police, Environmental Council of Zambia, and the House of Chiefs. Through coordination with Monitoring and Evaluation, this working group is assigned the task of elucidating the salient issues in ITN utilisation and determining the best course of action to improve ITN utilisation through their respective departments. In addition, this year the IEC group has made the strategic decision to concentrate on disseminating ITN educational materials through community radio, local drama groups, and a mobile video unit.

Improving Maintenance

As noted previously, a key component of maintenance in 2007 is the formation of an EPI working group dedicated to insuring that mothers with children under five receive a LLITN after their child receives their immunizations through the EPI program.

Table 2. Insecticide-treated Nets Plan 2007

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				
1	**ITN Component**	1, 2,3		x	x	x	x	x	x	x	x	x	x	x	x	15,481,055	10,365,718	5,115,336	0
Activity 1: Mass distribution		1	1,797,000 nets distributed	x	x	x	x	x	x	x	x	x	x			10,439,734	5,733,647	4,706,087	MOH, PHOs, DHMTs, UNICEF, SFH, MACEPA, CRAIDS, ZANARA, WHO
1.1	Procurement and Distribution of 1,000,000 LLITNs to Northern and Southern provinces	1	1,000,000 nets distributed	x	x	x	x	x								5,200,000	4,570,000	630,000	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF, CHAZ
1.2	Procurement	1		x	x											4,500,000	4,500,000	0	WB
1.3	Distribution	1				x	x	x								700,000	70,000	630,000	WB
Activity 2: Procurement and Distribution of 460,000 LLITNs to Eastern Province		1	460,000 nets distributed		x	x	x	x	x	x						2,323,000	0	2,323,000	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF, CHAZ
2.1	Procurement	1			x	x	x	x	x							2,070,000	0	2,070,000	0
2.2	Distribution	1							x							253,000	0	253,000	0
Activity 3: Procurement and Distribution of 337,000 LLITNs (Global Fund/CHAZ)		1	337,000 nets distributed						x	x	x					1,701,850	185,350	1,516,500	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF, CHAZ
3.1	Procurement	1							x	x						1,516,500	0	1,516,500	GF
3.2	Distribution	1									x					185,350	185,350	0	GF
Activity 4: Support to Districts for Distribution		1, 2	District to Community Distribution complete			x	x	x	x	x	x					765,692	765,692	(0)	NMCC, WB
4.1	Northern Province	1, 2				x	x									262,523	262,523	(0)	0
4.2	Kasama	1, 2				x	x									7,495	7,495	(0)	0
4.3	Mungwi	1, 2				x	x									18,391	18,391	0	0

Table 2. Insecticide-treated Nets Plan 2007

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				
4.4	Mpika	1, 2				x	x									66,708	66,708	0	0
4.5	Chinsali	1, 2				x	x									15,076	15,076	(0)	0
4.6	Isoka	1, 2				x	x									21,987	21,987	(0)	0
4.7	Nakonde	1, 2				x	x									18,384	18,384	(0)	0
4.8	Mpulungu	1, 2				x	x									17,348	17,348	0	0
4.9	Mbala	1, 2				x	x									33,241	33,241	0	0
4.10	Mporokoso	1, 2				x	x									16,435	16,435	(0)	0
4.11	Luwingu	1, 2				x	x									14,057	14,057	(0)	0
4.12	Chilubi	1, 2				x	x									16,662	16,662	(0)	0
4.13	Kaputa	1, 2				x	x									16,740	16,740	(0)	0
4.14	Southern Province	1, 2				x	x									196,892	196,892	(0)	WB
4.15	Choma	1, 2				x	x									21,877	21,877	(0)	0
4.16	Gwembe	1, 2				x	x									21,877	21,877	(0)	0
4.17	Itezhi-tezhi	1, 2				x	x									21,877	21,877	(0)	0
4.18	Kazungula	1, 2				x	x									21,877	21,877	(0)	0
4.19	Livingstone	1, 2				x	x									21,877	21,877	(0)	0
4.20	Mazabuka	1, 2				x	x									21,877	21,877	(0)	0
4.21	Monze	1, 2				x	x									21,877	21,877	(0)	0
4.22	Namwala	1, 2				x	x									21,877	21,877	(0)	0
4.23	Sinazongwe	1, 2				x	x									21,877	21,877	(0)	0
4.44	Eastern Province	1, 2				x	x									175,015	175,015	(0)	WB
4.45	Chadiza	1, 2				x	x									21,877	21,877	(0)	0
4.46	Chama	1, 2				x	x									21,877	21,877	(0)	0
4.47	Chipata	1, 2				x	x									21,877	21,877	(0)	0
4.48	Katete	1, 2				x	x									21,877	21,877	(0)	0
4.49	Lundazi	1, 2				x	x									21,877	21,877	(0)	0
4.50	Mambwe	1, 2				x	x									21,877	21,877	(0)	0
4.51	Nyimba	1, 2				x	x									21,877	21,877	(0)	0
4.52	Petauke	1, 2				x	x									21,877	21,877	(0)	0
4.53	Northwestern Province	1, 2						x	x	x						131,261	131,261	(0)	0
4.54	Kasempa	1, 2						x	x	x						21,877	21,877	(0)	0
4.55	Zambezi	1, 2						x	x	x						21,877	21,877	(0)	0

Table 2. Insecticide-treated Nets Plan 2007

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				
4.56	Kabompo	1, 2						x	x	x						21,877	21,877	(0)	0
4.57	Mufumbwe	1, 2						x	x	x						21,877	21,877	(0)	0
4.58	Mwinilunga	1, 2						x	x	x						21,877	21,877	(0)	0
4.59	Solwezi	1, 2						x	x	x						21,877	21,877	(0)	0
Activity 5: Distribution of 42,100 LLITNs to Chongwe and Mpongwe districts		1	42,100 distributed	x												212,605	212,605	0	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF, CHAZ
5.1	Procurement	1		x												189,450	189,450	0	GF
5.2	Distribution	1		x												23,155	23,155	0	GF
Activity 6: Trainings on mass distribution (orientation for 3 Provinces, 2 Districts)		1, 2	Participants success-fully receive and distribute ITNs			x										112,275	0	112,275	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF, CHAZ
6.1	Southern Province	1, 2				x										23,595	0	23,595	0
6.2	Northern Province	1, 2				x										23,675	0	23,675	0
6.3	Eastern Province	1, 2				x										23,595	0	23,595	0
6.4	Chongwe District	1, 2				x										20,705	0	20,705	0
6.5	Mpongwe District	1, 2				x										20,705	0	20,705	0
Activity 7: Quarterly support visits to districts (including tracking of plans)		1, 2	ITN needs reflected in District-level planning			x	x	x	x	x	x	x	x	x		124,312	0	124,312	0
7.1	2nd qtr	1, 2				x	x	x								66,876	0	66,876	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF
7.2	Northern	1, 2					x	x								60,860	0	60,860	0
7.3	Luapula	1, 2						x	x							3,023	0	3,023	0
7.4	Eastern	1, 2						x	x							2,993	0	2,993	0

Table 2. Insecticide-treated Nets Plan 2007

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				
7.5	3rd qtr	1, 2								x	x	x				51,278	0	51,278	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF
7.6	Western	1, 2								x	x					45,195	0	45,195	0
7.7	Central	1, 2									x					2,897	0	2,897	0
7.8	Southern	1, 2									x	x				3,186	0	3,186	0
7.8	4th qtr	1, 2									x					6,159	0	6,159	MOH, MACEPA, RAPIDS Consortium, PHO, DHMT, NHC, UNICEF
7.9	Lusaka	1, 2											x			20	0	20	0
7.10	Copperbelt	1, 2												x		3,166	0	3,166	0
7.11	Northwestern	1, 2												x		2,973	0	2,973	0
Activity 8: Equity		1, 2		x	x	x	x	x	x	x	x	x	x	x	x	160,400	59,900	100,500	MOH, PHO, DHMTs, ZMF, RAPIDS, MACEPA, UNICEF, NHCs/Caregivers
8.1	Distribute 505,000 LLITNs to 64 RAPIDS districts	1, 2	Target populations receive adequate number of ITNs			x	x	x	x	x	x	x	x			100,000	50,000	50,000	RAPIDS
8.2	Transport	1, 2								x	x	x	x			50,000	50,000	0	0
8.3	Gap Analysis	1, 2				x										0	0	0	RAPIDS
8.4	Training of NHCs and Caregivers	1, 2									x	x				50,000	0	50,000	RAPIDS
Activity 9: Distribute of 80,000 LLITNs to PLWA		1, 2	Target populations receive adequate numbers of ITNs		x	x	x									0	0	0	MOH/HIV CRAIDS

Table 2. Insecticide-treated Nets Plan 2007

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 10: Distribute 18,000 LLITNs to vulnerable populations nationwide		1, 2	Target populations receive adequate number of ITNs	x	x	x	x	x	x	x	x	x	x	x		9,900	9,900	0	NMCC, MACEPA
Activity 11: Emergency Stock		1, 2	Stock established and secure	x	x	x	x	x	x	x	x	x	x	x	x	50,500	0	50,500	0
11.1	Procure 10,000 LLITNs Emergency Stock	1, 2		x	x	x	x	x	x	x	x	x	x	x		45,000	0	45,000	MOH, WHO, UNICEF
11.2	Distribute emergency stock	1, 2		x	x	x	x	x	x	x	x	x	x	x	x	5,500	0	5,500	MOH, DHMTs, MSL
11.3	Malaria in Pregnancy	1, 2	Pregnant mothers and U5s can buy nets at ANC clinics	x	x	x	x	x	x	x	x	x	x	x	x	2,986,418	2,777,798	208,620	MOH, UNICEF, SFH, PHO, DHMTs,
Activity 12: Distribute 223,037 LLITNs to all Districts		1, 2	Pregnant mothers and U5s can buy nets at ANC clinics	x	x	x	x	x	x	x						1,130,798	1,130,798	0	SFH, NMCC
12.1	Procurement	1, 2		x	x											1,003,667	1,003,667	0	SFH, NMCC
12.2	Distribution	1, 2			x	x	x	x	x	x						127,131	127,131	0	SFH, NMCC
Activity 13: Distribution of 366,000 LLITNs to ten (10) sentinel sites		1, 2	Pregnant mothers and U5s can buy nets at ANC clinics					x	x	x	x	x	x	x		1,855,620	1,647,000	208,620	SFH, NMCC
13.1	Procurement	1, 2						x	x							1,647,000	1,647,000	0	SFH, NMCC
13.2	Distribution	1, 2											x	x	x	208,620	0	208,620	SFH, NMCC
Activity 14: Conduct review meetings		1, 2	Pregnant mothers and U5s can buy nets at ANC clinics					x	x	x	x	x	x	x	x	0	0	0	SFH, NMCC
14.1	Central	1, 2						x								0	0	0	SFH, NMCC
14.2	Lusaka	1, 2													x	0	0	0	SFH, NMCC

Table 2. Insecticide-treated Nets Plan 2007

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				
14.3	Copperbelt	1, 2												x		0	0	0	SFH, NMCC
Retreatment		2	Kits available, training provided before trans-mission season	x	x	x	x	x	x							1,778,574	1,774,374	4,200	0
Activity 15: Measles Campaign		2	Kits available, training provided before trans-mission season	x	x	x	x	x	x							1,778,574	1,774,374	4,200	0
15.1	Procure 1,000,000 treatment tablets	2		x	x	x										1,750,000	1,750,000	0	MOH, UNICEF, WHO, MACEPA
15.2	Develop distribution plan	2					x									0	0	0	MOH, UNICEF, WHO, MACEPA
15.3	Coordinate planning meeting for campaign	2			x	x	x	x	x							4,200	0	4,200	MOH, UNICEF, WHO, MACEPA
15.4	Participation in Measles Campaign	2							x							24,374	24,374	0	MOH, UNICEF, WHO, MACEPA
Activity 16: District Planning at PHOs		2. 3	ITN needs reflected in District-level planning				x									400	0	400	0
16.1	Meeting ITN & IEC	2. 3					x									400	0	400	0
Sustainability		2. 3	Main-tenance supplies of nets increasing				x	x	x	x	x	x	x	x	x	115,529	20,000	95,529	0
Activity 17: Commercial Market Research OPERATIONS RESEARCH		2. 3	Main-tenance supplies of nets increasing									x	x	x		40,000	0	40,000	Vestergaard, Bayer, Sumitomo
Activity 18: Community Malaria Booster Response		2. 3	Main-tenance supplies of nets				x	x	x	x	x	x	x	x	x	20,000	20,000	0	CRAIDS, MOH, ZANARA

Table 2. Insecticide-treated Nets Plan 2007

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				
			increasing																
Activity 19: ZABCOM		2. 3	Main-tenance supplies of nets increasing						x	x	x	x	x	x	x	55,529	0	55,529	0
Activity 20: Meeting to identify core group members and implementing partners'		2. 3							x	x						4,200	0	4,200	CHAMP, NMCC, ZMF, ZACCI
21.1	Sign and renew MOU with implementing partner	2. 3									x					190	0	190	CHAMP, NMCC, ZMF, ZACCI
20.2	Expand and strengthen employee-based scheme	2. 3										x	x	x	x	14,040	0	14,040	CHAMP, NMCC, ZMF, ZACCI
20.3	Core group meetings	2. 3							x	x	x	x	x	x	x	8,604	0	8,604	CHAMP, NMCC, ZMF, ZACCI
Activity 21: Coordination workshop of all partners to review Action Plan		2. 3												x		20,490	0	20,490	CHAMP, NMCC, ZMF, ZACCI
Activity 22: Launch of workplace malaria programmes		2. 3											x	x		8,005	0	8,005	CHAMP, NMCC, ZMF, ZACCI

Objectives		**Indicators**
1	Distribute the Nets	Number of nets distributed
2	At least 80% of rural and peri-urban households have nets available	% of households with nets available
3	At least 75% utilization rate of ITNs in households with 3 nets available	Utilization rate

3.2 Indoor Residual House Spraying (IRHS)

Summary, Goals, and Objectives

In the current strategic plan, the objective of the IRHS programme is to increase the coverage among eligible populations from 70% to 85% (approximately 700,000 households in 15 districts) by 2008 and to be maintained to 2011. To date, the IRHS programme has expanded from implementation in 2 districts in 2000 to 15 districts in 2006. Subject to the availability of funds in 2008, the number of IRHS districts is likely to increase from 15 to 22. The intervention will be implemented through an annual campaign strategy of increasing the numbers of sprayed households, with quality assurance and environmental safeguards in place.

Achievements during 2006

The programme made appreciable progress during the 2005-2006 spraying campaign. Notable among the achievements were:

- Procurement of equipment (700 Hudson X-pert pumps, pump accessories, personal protective equipment [1,000 units], and 54,440 sachets 75% WP DDT, 114,500 sachets of Pyrethroids [5% WP Alphacypermethrin & 10% WP Lambdacyhalothrin]).Training of 61 District trainers of trainers and approximately 1,100 spray operators.
- Production of IEC/BCC/Advocacy materials. For example, translation of IEC materials into local languages.

The programme was implemented with strong intersectoral collaboration including the Local Community Health Workers and neighbourhood health committee workers. The programme was further strengthened through technical and logistical support from USAID.

Actions to be taken in 2007

In order to attain national scale-up to high coverage and maintenance for the intervention in the districts, the programme will ensure sound coordination at all levels of implementation as well as prioritizing environmental monitoring and safeguard adherence. Procurement will be streamlined by expediting stock management and quantification with a view of timely implementation. The programme will also strengthen storage facilities to conform to Environmental Council of Zambia (ECZ) and World Health Organization (WHO) standards, include training of storekeepers. Logistics and information management will be strengthened by ensuring availability of transport, geomapping and standardization of information collection. The programme will strengthen entomological and parasitological monitoring. Conducting impact studies and developing resistance management strategies, including quality assurance, have been prioritized. There will be reinforced social mobilization, community participation and awareness through different media, such as IEC/BCC/Advocacy group incorporation. The programme will undertake studies of viable alternative interventions in the context of integrated vector management.

Detailed description of activities, targets, time frame, costs, gaps, and partner responsibilities

In the 2007 spraying campaign the Indoor Residual House Spraying programme will be undertaken in 15 districts. Further scaling up of the number of districts implementing the programme is not expected, but it is envisaged that the 15 districts will expand the coverage to 85%. Based on past experience, the intervention is expected to substantially reduce the prevalence of malaria in the earmarked districts. As noted in Table 3 below, the expected current resource envelope is US$ 9,847,555. Table 4 summarizes 2007 activities.

Table 3. 2007 IRHS Activity Costs

Activity	Cost (US$)
Coordination for IRHS – national level	72,555
IRHS mapping/GIS & GPS	200,00
National IRHS requirements	200,000
IRHS commodities and procurement	3,000,000
Environmental safeguards	1,700,000
Production and review of IEC, IRHS guidelines	65,000
Training of trainers	150,000
District cascade trainings	500,000
Community sensitization	100,000
Implementation costs	2,000,000
Establish Insectary	60,000
Vector susceptibility and resistance studies	50,000
Epidemiological & entomological studies	250,000
Establish malaria decision support system	500,000
Integrated vector management	1,000,000
Total Cost	**$9,847,555**

Support needs for District Action Planning

The identified support needs for District Action Plans include the following.

- Provision of adequate transport for spraying teams, equipment and commodities.
- Human capacity building through provision of quality training of the IRHS programme officer, coordinators and supervisors.
- Strengthened storage capability through refurbishment of storage facilities both at provincial and district levels.
- Stock control and management by assisting with quantification of spraying equipment and commodity requirements.
- Districts support to help them forge strong advocacy, social mobilization and intersectoral collaboration efforts.

The 2007 action plan will be implemented through the DHOs in collaboration with the local authorities, private sector, and other stakeholders at both the national and local levels. The main roles and responsibilities for the implementing agents and partners for IRHS will be as follows. NMCC will provide technical support, conduct procurement, implement monitoring and evaluation, planning, coordination, and supervision. The provincial health offices (PHOs) will be strengthened to coordinate the planning, implementation and monitoring of district IRHS activities. DHOs shall be responsible for planning, coordinating and implementation of the IRHS activities, ensuring environmental safeguards and training spray operators. Local authorities, in

partnership with DHOs, will be responsible for implementing IRHS and courting local partners. The private sector will partner with the NMCC at both the national and local levels to implement IRHS. Chemical supplies companies will partner with the NMCC to import and stock adequate and quality insecticides and equipment. The Tropical Diseases Research Centre will assist in technical research support, provision of entomological and parasitological data, and carrying out operations research. The Ministry of Defence will conduct the campaign in hard to reach areas such as security barracks, police camps, learning institutions, and provision of IRHS supportive activities. Training institutions will provide training of personnel and provision of technical support in operations research. The Environmental Council of Zambia will be responsible for regulating the standards of storage facilities, importation of chemicals, and monitoring the judicious use of insecticides.

Issues for new donor resources including Global Fund Round 7 Application and Presidents' Malaria Initiative planning

Issues identified for Global Fund Round 7 include:

- **Improving storage and training facilities**. This will include the expansion and refurbishment of already existing structures to acceptable legal standards and guidelines(WHO, ECZ & MoH guidelines).
- **Improving information management and dissemination at the district level**. This will be supplemented by the application of GIS/GPS mapping of eligible spray areas through the geo-coding of all the eligible structures. The other important step will be through the development of databases at district level which will ensure that standardization in the reporting procedures is maintained.
- **Strengthening partnerships at the district level**. Identifying linkages and strengthening partnerships at district level is essential to implementing activities in a coordinated manner.

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	Vector Control			1	2	3	4	5	6	7	8	9	10	11	12				
Goal/Objective: To increase coverage of IRS among eligible populations from the current estimated 70% to 85% (Approximately 700,000 structures in the 15 districts)																			
Activity 1: National level coordination of IRS																			
1.1	Coordination of IRS and national programme	Support to national IRS steering committee	IRS coordinated nationwide	x	x	x	x	x	x	x	x	x	x	x	x	25,000		25,000	MoH/ NMCC
1.2	National policy and planning,	Meetings and consultations with stake-holders	Policy & planning framework in place	x	x	x	x	x	x	x	x	x	x	x	x			-	
1.3	Central information management	Training of personnel, travel costs	Central information system in place	x	x	x	x	x	x	x	x	x	x	x	x			-	
1.4	Province and district coordination	Support to provincial and districts for IRS	District and province coordinated	x	x	x	x	x	x	x	x	x	x	x	x			-	
1.5	Resource mobilization	Meetings and consultations with stakeholders	Resources mobilised	x	x	x	x	x	x	x	x	x	x	x	x			-	
1.6	Coordination with ECZ and other partners					x	x	x	x	x	x	x	x	x	x			-	
																200,000		200,000	NMCC/ MACEPA
Activity 2: IRS household mapping using GIS/GPS																			HSSP
2.1	Development of plan of action for household mapping	Meetings , personnel	Household action plan developed		x													**-**	IVCC
2.2	GIS training in the 15 IRS eligible districts	Training,	GIS training conducted		x	x												**-**	
2.3	Production of trace maps for the 15 districts		Trace maps in 15 districts produced			x	x											**-**	
2.4	Report production on lessons learned on district training and map production		M & S geoinfomation conducted						x									**-**	
2.5	Monitoring and supervision of geoinformation data production in 15 districts	Travel costs, personnel									x	x	x	x	x			**-**	
																200,000	6,600	193,400	
Activity 3: National IRS requirements identified																			KCM/ NMCC
3.1	Conduct needs assessments for the eligible districts	Personnel, transport, checklists, funds	Needs assessments conducted		x	x	x											**-**	MCP/ HSSP

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	Vector Control			1	2	3	4	5	6	7	8	9	10	11	12				
3.2	Preparation of district IRS action plans	Personnel, transport, funds	District action plans in place		x	x	x	x										-	UNZA
3.3	Finalisation of 2007 IRS action plan	Meetings	IRS national plan produced			x	x	x										-	
																20,000		20,000	
Activity 4: National IRS commodities known																			
4.1	Personal protective equipment, transport etc…	District annual plans, personnel	National IRS requirements known		x	x	x	x										-	
Activity 5: Procurement of commodities																			
5.1		Funds, tender procedures	Commodities procured			x	x	x	x									-	MoH / Media
																3,000,000	720,400	2,279,600	WB/GF/ USAID
Activity 6: Establishment of environmental safeguards																			
6.1	Construction/refurbishments of storage facilities	Meetings and consultations with stakeholders	Environmental safeguards in place		x	x	x	x	x	x	x	x	x	x	x	1,200,000		1,200,000	
Activity 7: Production, review of IEC , IRS guidelines and manuals																			MOH/ HSSP
7.1	Prepare and distribute IEC materials	Meetings, printing, funds, personnel	IEC materials produced and distributed			x	x	x	x	x								-	
	Production of IRS protocols and guidelines	Meetings, printing, funds, personnel	Protocols and guidelines in place			x	x	x										-	
																65,000		65,000	
Activity 8: Training of trainers in IRS operations										x	x							-	MOH/ HSSP
8.1	Personnel identified and trained (61 approximately)	Personnel, meetings, venue costs, stationery							x	x								-	KCM/ MCP
8.2	Venue identified	Training guidelines production	Provincial and district personnel trained															-	UNZA
		Practical training materials																-	
																150,000	22,500	127,500	

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	Vector Control			1	2	3	4	5	6	7	8	9	10	11	12				
Activity 9: District cascade trainings of spray operators																			MOH/ HSSP
9.1	Recruit of spray operators	Training materials, PPE	Spray operators at district levels trained								x	x						**-**	KCM/ MCP
9.2	Training (21 days)	Venue and financial resources																**-**	UNZA
Activity 10: Community Sensitization and IEC																500,000		500,000	MOH/ HSSP
10.1	Community meetings and radios, stakeholders meetings etc…	Transport and funding, personnel	Communities sensitized & mobilised		x	x	x	x	x	x	x	x	x	x	x			-	
10.2	IRS launch	Venue costs IEC and PA systems costs	on IRS															-	
																100,000		100,000	
Activity 11: Targeted 15 Districts Implement IRS																			MOH/ HSSP
11.1	Eligible district implementation	Personnel, implementation costs										x	x	x				**-**	
11.2	Post spray meeting		15 districts implement IRS in eligible areas											x	x			**-**	
																2,000,000	39,500	1,960,500	
Activity 12: Monitoring and Supervision of District IRS activities																			MOH/ HSSP
12.1	Conduct 3 supervisory visits in 60 days	Transport costs, meetings, checklists	Monitoring and Supervision conducted									x	x	x				**-**	KCM/MC P
																		-	UNZA
Activity 13: Insectary establishment and Maintenance			Functional insectary supporting															**-**	NMCC, IVCC,
13.1	Locate, rent and renovate premises to standard of insectary	Insectary establishment and maintenance costs	Operational research		x	x	x											**-**	HSSP, VBC
13.2	Recruit and train two lab assistants	funding, tender procedures, transport				x	x	x										**-**	
13.3	Procure laboratory items: air conditioners, humidifiers, sinks, thermometers	Assistants salaries, training, guidelines			x	x	x											-	

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	Vector Control			1	2	3	4	5	6	7	8	9	10	11	12				
13.4	Procure insectary maintenance equipment: mosquito cages, bows, respirators etc	laboratory equipment			x	x	x	x										-	
																60,000		60,000	
Activity 14: Conduct vector susceptibility and resistance studies			Updated information on susceptibility		x	x	x	x	x	x	x	x	x	x	x			-	NMCC, IVCC,
14.1	Identification and training of team members (2 field attendants, 1 officer)	Training guidelines, technical support, funding	status															-	HSSP, VBC
14.2	Procure insectary maintenance materials (Impregnated paper, feeds etc)	Tender procedures, transport costs, protocols,	Field summary reports															-	
14.3	Procure field collection materials (torches, batteries etc)	Personnel, per diem, laboratory and field																-	
14.4	Conduct field surveys for sample collection	Equipment																-	
																50,000		50,000	
Activity 15: Conduct epidemiological and entomological investigations			Updated information on epidemiological		x	x	x	x	x	x	x	x	x	x	x			**-**	NMCC, IVCC,
15.1	Identification and training of 3 teams (4 field attendants, 1 officer)	Training guidelines, technical support, funding	and entomological parameters															**-**	HSSP, VBC
15.2	Entomological indices; vector species, densities, breeding and distribution	tender procedures, transport costs, protocols,	Reports															**-**	
15.3	Vector resting and feeding (human biting rate, vector infectivity, EIR) behaviour	personnel, per diem, laboratory and field	Impact of interventions known															**-**	
15.4	Parasitological (parasite prevalence surveys, malaria incidence etc…)	equipment																**-**	
15.5	Clinical data collection (confirmed laboratory data)																	-	
15.6	Pre and post IRS entomological and parasitological surveys																	-	

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	**Vector Control**			1	2	3	4	5	6	7	8	9	10	11	12				
15.7	Impact of malaria interventions																	-	
																250,000		250,000	
Activity 16:Integrated vector management			Insecticide Resistance Management		x	x	x	x	x	x	x	x	x	x	x			**-**	NMCC, IVCC
16.1	Evaluation of new insecticide/ larvicides as alternatives to DDT	Personnel, transport, funding,	Implemented															**-**	VBC, WB
16.2	Conduct needs assessments/ KAP and Community acceptance surveys	Recruitment of applicators,	Strengthen research towards alternatives															**-**	
16.3	Training of applicators in the use of microbial anti-larval products	Training guidelines, technical support																**-**	
16.4	Procure vector control equipment and commodities	Tender procedures, checklists																**-**	
16.5	To conduct larviciding and simple EM in the IVM context																	**-**	
16.6	Operational supervision																	**-**	
																1,000,000	1,000,000	-	
Activity 17: Establishment of Malaria Decision Support System (MDSS)																		**-**	NMCC, IVCC
17.1	Development of spatial data repository of info required to run the MDSS	GIS/GPS Software, equipment, personnel	Malaria DSS established															**-**	
17.2	Identification of sentinel sites for the monitoring of ento. and clinical data	Historical data, maps, Malaria Information,	Vector control strategies informed by DSS															**-**	
17.3	Establish statistical and spatial methodology to model baseline data	System (MIS),																**-**	
17.4	Dissemination of data towards informing vector control strategies	Data analysis and meetings (dissemination)																**-**	
																500,000	500,000	-	
Activity 18: Environmental Safeguards					x	x	x	x	x	x	x	x	x	x	x			**-**	NMCC,E CZ, WB

Table 4. Indoor Residual House Spraying Plan 2007

Activities		Indicators	Target	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
				J	F	M	A	M	J	J	A	S	O	N	D				
Unit	**Vector Control**			1	2	3	4	5	6	7	8	9	10	11	12				
18.1	Operational research (environmental safety studies etc) carried out	Protocols, Laboratory and field equipment	Environmental safeguards in place															**-**	
18.2	Establish Baseline data on DDT availability in the environment	Data analysis and meetings (dissemination)	Monitored															**-**	
18.3	Guidelines for environmental safeguards developed	Human resource, funds, transport, stake-holders																**-**	
18.4	Ensure disposal according with the Waste Management Plan																**-**		
18.5	Document and disseminate environmental safeguards information															500,000	350,000	150,000	
Grand Total																**8,036,800**	**2,639,000**	**7,208,555**	

3.3 Prompt and Effective Case Management (PECM) and Malaria in Pregnancy (MIP)

Summary

The main objective of case management in the NMSP is to ensure that at least 80% of patients with malaria are appropriately diagnosed and managed within 24 hours by 2008. The new treatment policy of using artemether-lumefantrine has been in place nationally for the past four years. To increase access to artemisinin combined therapy (ACT), treatment will be rolled out beyond facilities through community health workers and the private sector. Recently, the exercise of rolling out the use of RDTs to those centres that do not have microscopy services has been started, and plans to introduce the medicines at the community level are being developed. For malaria in pregnancy, expanding access to a comprehensive package of interventions will continue through strengthening focused antenatal care. However, despite this impressive roll-out of an effective anti malaria treatment policy, challenges still remain.

Objective

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.

Action and Progress during 2006

Scaling up the use of ACTs was a major priority for 2006, and by the end of the year there was progress, but it was slower than hoped because of delays in procurement. Therefore, a considerable portion of what had been planned for 2006 remains to be undertaken in 2007. In order to develop actions for 2007 key bottlenecks were identified and ways to overcome them have been proposed.

Major challenges in 2006

Some major challenges in 2006 were:

- Differential pricing of artemether-lumefantrine between the public and private sectors led to leakage from the public sector to the private sector as well as restricting access to an effective antimalarial by a significant proportion of people.
- Access to effective treatment within 24 hours was still restricted due to low health facility coverage of the population.
- Problems of supply, distribution, and record keeping, and a lack of appropriate storage facilities persist in health facilities.
- Providers have limited capacity to manage complicated malaria in pregnancy.
- Health workers' compliance with the new antimalarial drug policy is limited, as is patient adherence to the treatment.

- A 2006 study showed that some health workers were still failing to assess danger signs for severe malaria resulting in delayed referral.
- Lack of transport, communications, and feedback mechanisms led to problems in patient referral.
- Although RDTs were rolled out to all health facilities without microscopy, supplies remained erratic and microscopy services remained very limited.
- Where RDTS and microscopy were available, health workers continued to ignore negative test results and treated patients symptomatically, undermining the value of diagnostic services.
- There was no quality assurance mechanism for RDTs and efforts were needed to strengthen quality assurance for malaria microscopy.

Actions to be taken in 2007

Six top priorities are as follows:

- Eliminate gaps in supply of antimalarials and diagnostics which severely hamper scale-up efforts.
- Ensure that ACT provision and use is implemented on a wide scale and efficiently in the public and not-for-profit health services. This will address problems of supply management, correct use by health workers, and improved diagnosis.
- Roll out community-based treatment with ACT as part of c-IMCI. This will involve a major planning exercise, engagement with the Child Health Unit and collection of data to enhance the implementation strategy in coming years. Initial roll-out will be based on clinical diagnosis and a full assessment of the feasibility of introducing RDTs at this level will be undertaken.
- Improve management of severe malaria with a focus on pre-referral but also at the district and referral hospital levels.
- Improve availability and use of ACTs in the for-profit private sector to increase access and to contribute to reduction in leakage from the public sector. Strategies for this will be tested.
- Scale up management of malaria In pregnancy via FANC in all 72 districts by the end 2007.

Detailed description of activities, targets, time frame, costs, gaps, and partner responsibilities

Goal

To ensure that at least 80% of malaria cases are appropriately diagnosed and treated within 24 hours by 2011

Primary objective for 2007

To increase access to accurate diagnosis and effective treatment of malaria from 38% to 50%.

Specific objectives for 2007 (summarized in Table 5)

- Improve quality of case management in the public sector, including non-profit services.
- Roll out home management of malaria using c-IMCI in 45 districts by the end of 2007.
- Strengthen recognition and management of severe malaria.
- Introduce affordable ACT and improve case management among 50 urban registered private sector providers.
- Provide timely and accurate malaria diagnosis to guide treatment in all health facilities in Zambia.
- Strengthen drug logistics management.
- Strengthen management of malaria in pregnancy through the roll-out of FANC

Table 5. Summary of PECM Objectives

Objective	Indicator	Target
Improve quality of case management in public sector, including non-profit services.	- % health facilities with no stockouts of AL for 1-2 weeks. - Health care providers correctly diagnose and treat malaria according to national policy.	- 95% 12/12 months - 50%
Rollout of home management of malaria using c-IMCI in 45 districts by the end of 2007.	- % CHWs trained/district (or % NHCs with at least one CHW trained) to use ACT. - % CHWs with no stockout for more than one month. - # patients treated by CHWs per month.	- 50% - 50%
Strengthen severe malaria recognition and management.	-% of severe malaria cases correctly managed at district Hospital level. -% severe cases at clinic level referred appropriately	- 80%
Introduce affordable ACT and improve case management in 50 urban registered private sector providers.	- % providers with no stockouts. - % patients receiving appropriate treatment. - % patients receiving appropriate instructions.	12/12 months - 80% - 80%
Provide timely and accurate malaria diagnosis to guide treatment of malaria in all health facilities in Zambia.	- % facilities providing timely and appropriate diagnosis. - % health facilities with no stockouts of diagnostic materials in last month.	- 90% - 95%
Strengthen drug logistics management.	- % districts using new ordering/ reporting system. - % of district pharmacists trained in drug logistics management.	- 90% - 90%
Strengthen management of malaria in pregnancy through the rollout of FANC.	- % health facilities with trained staff providing FANC. -% of all health facilities providing FANC. - % pregnant women receiving IPT doses 2 and 3. - % mothers attending FANC receiving haematinics.	- 80% - 50% - 80% for 2, 50% for 3 - 80%

Support needs for District Action Plans

- Standard guidance for districts on what to include in their plans and showing appropriate measures.
- Resources for technical and supervisory support.

Support needs for Local Partner Action Plans

- Ensure members of Development Plan Committee have updated information on malaria for planning.
- Provide information to organisations such as Red Cross, CHAZ, defence forces, police, White Ribbon Alliance members and other local partners, with suggestions on how they can support treatment of malaria and IPT.

Issues to Address in Global Fund Round 7 Proposal

- Supplies and commodities to maintain high coverage (e.g., drugs, lab supplies, ambulances, motorbikes, solar panels for labs).
- Capacity building for skilled health workers, community health workers.
- Storage capacity for drugs and equipment.
- Early preparedness, especially on budget and workplan.

Malaria in Pregnancy

Malaria is one of the major causes of morbidity and mortality among pregnant women. Malaria causes abortions, premature birth, and anaemia. Evidence has also shown that 20% of maternal deaths in Zambia are due to malaria. Most of these deaths can be averted by putting in place an effective prevention strategy; achieving high participation rates in antenatal care services is central to this strategy.

Objective

At least 80% of women have access to the package of interventions to reduce the burden of malaria in pregnancy by December 2008. The package will include a full three-dose course of IPT, use of an ITN, and anaemia reduction and treatment.

Strategies

- Strengthen the malaria component of FANC.
- Support the national roll out of FANC.
- Increase in percentage of mothers seeking FANC in order to improve IPT, ITN, and haematinics uptake.
- Strengthen the capacity of districts in supportive supervision.
- Support the implementation of Maternal Death Reviews (MDR).
- Ensure constant supplies of ITNs, SP, and haematinics.

Operations research design

The focus is prevention of malaria during pregnancy by increasing uptake of ITP and use of ITNs in the country through a joint commitment to strengthen focused antenatal care. The key emphasis will be to increase coverage of the 4 FANC visits and improve client and provider compliance.

Activities conducted during 2006

The 2006 planned activities were focused on capacity building in supportive supervision, anaemia screening and reviewing maternal deaths in selected districts. The specific activities undertaken are as follows:

- Reviewed focused antenatal care package.
- Developed orientation package for PMTCT trainers to the revised FANC package.
- Developed IRH supervisory tools.
- Developed the orientation package to the supervisory tools.
- Collected and analyzed data on maternal deaths in 9 districts.
- MDR committees established in 4 districts.

Challenges

- Human resource constraints affecting the quality of FANC package.
- Inadequate funding.
- Inadequate and poor supportive supervision.
- Inconsistent supply of sulfadoxine pyrimethamine.
- Inconsistent supplies of ITNs.
- Inconsistent supplies of ferrous sulphate and folic acid.
- Limited capacity of health providers in treating anaemia and severe malaria during pregnancy.
- Inadequate transport for emergencies.

2007 Activities

The focus for 2007 shall be to continue capacity building, improving service delivery, reviewing maternal deaths, improving supply logistics and procurement, procurement of equipment and vehicles, improving programme M/E, and strengthening linkages. The following activities will be undertaken:

- Conduct district trainings in the use of IRH tools.
- Conduct supportive supervision.
- Procurement of hand held HB equipment.
- Procurement of SP, ITNs and haematinics.
- Training of health providers in the use of hand held HB equipment.
- Dissemination of MDR findings from the pilot districts.
- Scaling up MDRs, including database development and committee establishment.
- Training of health providers (both in private and public) in MIP.
- Review the TBA curriculum and other CWH curricula and incorporate MIP issues.
- Develop a communication strategy for safe motherhood.
- Incorporate MIP interventions and support the White Ribbon Alliance activities.
- Contribute to a safe motherhood week.
- Conduct a situation analysis of the status of provision of MIP services.
- Increase uptake of MIP interventions through use of IEC/BCC strategies.
- Strengthen coordination between NMCC and RH unit.

Table 5. Prompt and Effective Case Management (PECM) Plan 2007

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 2008																		
Strategy 1: Extending diagnosis and treatment of malaria to community level using c-IMCI																		
Activity 1.0 Rollout of home management of malaria using cIMCI in xx/72 districts by the end of 2006																		
1.1	Baseline assessment at health facility level on Malaria Case Management practices	# of health facilities assessed	150			X	X									20,000		NMCC, Malaria Consortium, MACEPA, HSSP
1.2	Finalise MoU and sign with partners	MoU	1			X										1,000		CARE, HSSP, CHU,NMCC
	Carry out situation analysis on HMM	# of communities assessed	200			X										30,000		
1.3	Deregulate Coartem for use by CHWs	# of meetings held	10			X	X	X	X							20,000		NMCC, Pharmacy UNIT, PRA, therapeutic committee, Mwengu
	Undertake policy review	# of kits updated/ # documents printed	2000 printed documents, 1350 kits updated			X	X	X	X							40,000		
	Develop policy framework					X	X	X	X									
	Update community drug kit to include Coartem						X	X	X	X								
	Printing documents								X	X	X	X	X	X				CHU, PRA, MSL, DHMT
1.4	Quantify and procure Coartem for use at community level	# of doses procured	xx						X							X		NMCC, Pharmacy UNIT, PRA, Therapeutic committee
1.5	Develop standard package for facilitating CHWs to implement HMM	# of meetings held	5			X										10,000		CHU, NMCC, MC
1.6	Procurement of package contents for all CHWs	# packages procures	1350			X	X									100,000		
1.7	Review and update training curriculum, training materials and supervision/monitoring tools for CHWs (SOPs)	# of meetings held	5				X	X								10,000		NMCC, CHU, Malaria Consortium
1.8	Printing of training materials and supervision tools	# of tools printed	1400					X	X							6,000		NMCC, CHU, other interested groups

Table 5. Prompt and Effective Case Management (PECM) Plan 2007

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			
1.9	Orientation of CHWs on HMM in xx districts	# oriented	1350					X	X	X						100,000		
1.10	BCC/ Community sensitisation on effective roles of CHWs • Develop IEC, radio spots + guidelines • Print and disseminate guidelines • Orientation/ sensitization of communities	# of IEC activities done	200				X	X	X							100,000		CHU, NMCC, NHCs, CARE, Mwengu, DHMTs etc
		# of guidelines					X	X	X									
		# of communities sensitized	72				X	X	X	X	X	X	X	X	X	250,000		
1.11	Quarterly review/supervision meetings of CHWs	# of meetings held	4				X		X			X			X	20,000		DHMT, Provinces, NMCC
Activity 2.0 Roll out current treatment guidelines to all private practitioners country wide																		
2.1	Stakeholder meetings to identify partners, agree on implementation strategy including a draft MoU	# of meetings held	3			X	X	X								6,000		CARE, HSSP, CHU,NMCC, MC, PU, PRA, DHMTs, HCCs, NHCs
2.2	Finalize development of subsidy plan to make Coartem available to private practitioners	# of meetings held	2			X										4,000		NMCC, Novartis, Pharmacy department
2.3	Conduct situation analysis on antimalarials available in private sector	# of practitioners assessed	50													20,000		
2.4	Identify and train those private practitioners not trained to date on treatment guidelines	# of practitioners trained	200													200,000		ZMA,ZNA, PRIVATE, NMCC, DHMTs
2.5	Quarterly supervision of private practitioners on adherence to new drug policy	# of supervision visits	4									X			X	20,000		DHMT, Provinces
Activity 3.0 : Strengthening severe malaria recognition and management																		

Table 5. Prompt and Effective Case Management (PECM) Plan 2007

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			
3.1	Adapt guidelines and other training support materials (wall charts, job aids, referral guidelines etc) for training of health workers at all levels including the community	# guidelines/# trained	2000 guidelines / 2000 trained				X	X	X	X						50,000		NMCC, PHMT, DHMTs, malaria consortium, HSSP, WHO
3.2	Procure glucometers, means of Hb assessment, rectal artesunate	# of glucometers purchased	1000						X	X	X	X	X	X		500,000		NMCC, malaria consortium, HSSP, WHO, MACEPA
3.3	Orientation of ToTs for severe malaria case management using adapted materials	# oriented	150									X	X			100,000		NMCC, PHMT, DHMTs, malaria consortium, HSSP, WHO, TDRC
3.4	Training of health workers at lower level facilities on danger sign recognition, pre-referral treatment and advice	# oriented	200										X	X		150,000		DHMT, NM CC, Malaria Consortium, WHO, HSSP
3.5	Training of health workers in inpatient facilities on triage, emergency assessment and treatment	# oriented	200										X	X		150,000		DHMT, NM CC, Malaria Consortium, WHO, HSSP
3.6	Support supervision of trained health workers	# of visits	4												X	20,000		PHMT, DHMT, malaria consortium, HSSP, WHO
3.7	Mobilise communities through NHCs to seek early treatment from community health workers	# of communities sensitised	72							X	X					250,000		DHMTs, MSHRC
Activity 4.0: Provide easy, timely and accurate malaria diagnosis to guide treatment of malaria in all health facilities in Zambia.																		
4.1	Procure microscopes, reagents and supplies	# of microscopes procured	300		X	X				X	X					50,000		
4.2	Training of malaria microscopists	# of trained microscopists	80		X	X			X	X	X	X	X	X		50,000		
4.3	Evaluate the performance of Trained malaria microscopists	# of evaluated microscopists	200		X						X				X	15,000		
4.4	Procure and distribute RDTs to all health facilities without lab. Facilities	# of RDTs procured, # of facilities using RDTs	2 million		X	X	X	X	X	X	X	X	X	X	X	500,000		
4.5	Increase RDTs brands evaluated	# of RDTS brands evaluated	10			X		X								15,000		

Table 5. Prompt and Effective Case Management (PECM) Plan 2007

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			
4.6	Train frontline health workers on use of RDTs in all 72 districts	# of districts trained	20			X	X	X				X	X	X		20,000		
4.7	Quarterly monitoring of RDTs/diagnostics implementations in 72 districts	# of quarterly visits conducted	4				X			X			X			20,000		
4.8	Print public health centre laboratory investigations registers and forms	# of health facilities with registers	1500	X	X	X	X	X	X	X	X	X	X	X	X	15,000		
4.9	Pilot QA system on five districts	# of districts participating in the pilot	5		X	X	X	X	X	X	X	X	X	X	X	60,000		
4.10	Establish quality assurance for malaria diagnostics in all the 9 provinces and 72 districts	# of heath facilities participating in QA	72	X	X	X	X	X	X	X	X	X	X	X	X	200,000		
4.11	Establish a passive Malaria parasite rates survey in all health facilities in Zambia	# of heath facilities submitting parasites rates	1390		X	X	X	X	X	X	X	X	X	X	X	10,000		
4.12	Setting up a molecular lab at UTH		1							X	X	X	X	X	X	20,000		
4.13	Annual support to IRS,ITN,M&E & operations research units			X	X	X	X	X	X	X	X	X	X	X	X			
Activity 5.0 Strengthen drug logistics management																		
5.1	Situation analysis of drug logistics management	# of institutions visisted	150 health facilities			X	X									50,000		PU, NMCC, DHMTs, MSL, PRA, PHO, MC
5.2	Training of health workers in drug logistics management	# trained	72													20,000		
5.3	Meeting to address identified gaps	# of meetings held	4					X								20,000		PU, NMCC, DHMTs, MSL, PRA, PHO, MC
5.4	Tailored training or support supervision to address identified gaps at lower level	# of support visits	4					X	X	X	X	X	X			20,000		PU, NMCC, DHMTs, MSL, PRA, PHO, Malaria Consortium
5.5	Pharmacovigilance monitoring	# of monitoring visits	4					X	X	X	X	X	X	X	X	20,000		

3.4 Performance Monitoring and Impact Evaluation

Introduction

Monitoring and evaluation of the scale-up of malaria interventions and their associated impact on malaria burden is essential for understanding progress, successes and challenges in national malaria control efforts. Following the ambitious targets set in the 2006-2011 NMSP, the RBM partnership in Zambia developed the accompanying National Malaria M&E Plan to coordinate partner malaria M&E and to define the essential M&E roles necessary for understanding progress in attaining the national targets. The National M&E Plan is a living document that presents key objectives for putting in place an effective system for measurement, performance monitoring and evaluation.

Objectives for 2007

- Strengthen the national coordination of malaria M&E.
- Improve the district ability to report on malaria-related performance, including the burden of malaria and the delivery of malaria interventions.
- Improve the assessment of performance in the national scale-up of malaria interventions.
- Conduct key evaluations of service delivery areas and understand how well the malaria M&E system is functioning.
- Produce key reports assessing the scale-up and performance of malaria control programme.
- Strengthen the M&E capacity of the National Malaria Control Programme, including national and sub-national personnel.

Progress update for 2006

- National Malaria M&E plan (working document) updated and disseminated.
- Maintained contact with the RBM Monitoring and Evaluation Reference Group (MERG) on M&E issues.
- Hosted RBM MERG meeting in Livingstone.
- Participated in the household and capacity building task forces.
- Participated in the WHO AFRO M&E guideline finalization.
- Participated in the National MoH Coordinating M&E meetings.
- Participated in the review of the HMIS.
- Updated 10-sentinel district Malaria Information System; district profiles developed.
- Developed a framework and plan for strengthening district performance monitoring through routinely reported malaria information.
- Conducted the Zambia National Malaria Indicator Survey (MIS) 2006 and results disseminated.

- Reporting obligations to Global Fund, World Bank, and MACEPA.
- Collaboration with Zambia Demographic and Health Survey (DHS) 2006 (now 2007) development.
- Collaboration with other Ministries (e.g., with the Central Statistical Office on the MIS, SAVVY).
- Capacity strengthening training of UNZA MPH students in MIS; district IRHS post-spray M&E development; district IVM M&E strengthening.

Challenges

- Personnel and skills development.
- Understanding progress in facility-delivered interventions; especially case management, diagnostics. Including facility commodity supply management performance assessment.
- Basic vector impact evaluations and vector 'descriptives'.
- Funding flows from Global Funds.
- Donor participation and M&E technical assistance.
- Partner coordination, for example with M&E and research activities.
- Communication between central level and provinces/districts

Gap Analysis

Financial gap analysis for 2007 is based on the following known inputs presented in Table 6. As a rule, M&E activities are targeted for roughly 5-10% of overall budgeting and expenditures. For 2007, roughly US$ 45 million is available for malaria control, therefore we are targeting roughly US$ 3.8 million for M&E activities. Nearly US$ 20 million of planned expenditure for 2007 will be commodity cost. Subtracting commodities costs, we expect the 7% to be nearly US$ 1.8 million for M&E.

Table 6: Funding for M&E activities (where known)

Funding source	Amount Available
GRZ	Unknown
World Bank Malaria Booster programme – district performance monitoring framework	~ Kwacha 420 million (~US$ 100,000)
Global Fund Round 1 Phase 2 Year 3	US$ 140,873
Global Fund Round 4 Phase 1 Year 2	US$ 83,000
Health Systems Strengthening Programme (HSSP)	Unknown
MACEPA – MoH	~ US$ 250,000 (05-06)
MACEPA	~ US$ 500,000 (05-06)
TOTAL	**~ US$ 1.4 million**

The objectives of the 2007 Action Plan correspond to filling key gaps in M&E. Human resources is one of the most critical issues for implementing the 2007 Action Plan M&E component. Both short term and long term solutions were proposed. For the activities in the short term, identifying M&E skills available

for contracting will provide enough people to carry out several of the key tasks, including evaluations for the ITN distribution to boarding schools, overall ITN process evaluation, and examining the recent success of the new antimalarial drug dispensing and consumption system. Over the long-term, identifying the potential to develop M&E skills at the national, provincial and district levels is a priority. These include training in M&E capacity development and establishing a more formal curriculum for development of M&E skills.

Staffing requirements:

- M&E focal person (MoH) at NMCC

Other key gaps that have been identified include lack of M&E review and coordinating meetings, still information technology and communications (ITC) infrastructure, the need for strengthening data management and reporting, improved mobility for provincial and district staff, including the need for more vehicles, programme management strengthening and performance assessment and instruction for key service delivery issues (determining ITN coverage and ITN need requirements).

Support for the District Action Plan

District Action Plans need support for:

- 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 provision by the NMCC.
- Training in the use of the data collection tools.
- Evaluation methods.
- Vehicle procurement.

Support for Partner Action Plan

Partner Action Plans need to reflect at least a core component for monitoring and evaluation, 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 and partners should incorporate these into their plans. This guidance is also available and updated in the national M&E Plan.

Global Fund Round 7 Gaps

Considering the application for Round 7, transportation continues to be a problem for implementing M&E activities. Including vehicle purchase for support to the provinces and districts will be beneficial. Gaps that have been identified during this process including support for M&E review and coordinating meetings, ITC infrastructure at provincial and district, the need for strengthening data management and reporting, improved mobility for provincial and district staff, including the need for more vehicles, programme

management strengthening and performance assessment and instruction for key service delivery issues, need to be sustained over time. These will make good contributions to the Round 7 proposal.

Table 7. Monitoring and Evaluation Plan 2007

Activities		Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	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	**National malaria M&E coordination**															
1.1	RBM M&E working group meeting (quarterly) – representation from districts and provinces			X			X			X			X	5,000	Funds (Global Fund, MACEPA)	MoH (M&E FP), MACEPA (M&E), WHO (NPO), UNICEF, SFH, CHAZ
1.2	Participate in National Health M&E programme in regular meetings – weekly	X	X	X	X	X	X	X	X	X	X	X	X		Personnel	MoH (M&E FP), MACEPA, WHO, UNICEF
1.3	Representation with WHO AFRO and ICST Annual meetings								X					10,000	Funds (WHO, MACEPA)	NMCC (M&E FP), WHO, MACEPA (M&E FP)
1.4	Maintain linkage with RBM Monitoring and Evaluation Reference Group (MERG)					X						X		15,000	MACEPA	NMCC (M&E FP), MACEPA
Activity 2.0	**District performance monitoring**															
2.1	Conduct national workshop to develop, revise and harmonize reporting tools – involve key district and provincial focal points			X										21,000	WB	MoH/NMCC, World Bank, MACEPA, WHO, ZANARA
2.2	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	X	X	X										25,000	WB	MoH/NMCC, World Bank, MACEPA, WHO, ZANARA
2.3	IT infrastructure development (assessment to include understanding of local needs)													12,000	WB	
2.4	Roll out and orientation of Booster programme and associated reporting mechanism at provincial level and district level	X	X	X										44,000	WB	MoH/NMCC, World Bank, MACEPA, WHO, ZANARA
2.5	Supervisory support at district and community level Ex: earmarked for technical support for malaria		X	X	X	X	X							50,000	Global Fund	MoH/NMCC, MACEPA
Activity 3.0	**Programmatic monitoring**															
3.1	Support for malaria information system in 10 sentinel districts													60,000	Global Fund	
3.2	Monitoring of the ITN programme (Including updating of ITN database)			X			X			X			X	20,000	Global Fund / MACEPA	MACEPA, WHO, UNICEF, SFH, CHAZ
3.3	Supervisory tool for ITN district visits														MACEPA, NMCC	NMCC, MACEPA
3.4	Updating ITN distribution database			X			X			X			X		Global Fund	NMCC
3.5	Post mass distribution monitoring of appropriate use (sleeping under ITNs, abuse of ITNs, checklist			X			X			X			X			NMCC, MoH, Districts

Table 7. Monitoring and Evaluation Plan 2007

Activities		Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	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			
	development)															
3.6	IRHS information system development														HSSP	USAID, MACEPA, NMCC
3.7	PDA/GIS mapping training 15 districts		X	X										27,000	HSSP, MACEPA	USAID, MACEPA, NMCC
3.8	IRHS spray areas mapped – 15 districts			X	X	X								10,000	MACEPA	USAID, MACEPA, MoH
3.9	Summary report of spray activities for 2006-07 spray season				X									4,000	MACEPA	NMCC, Districts, MACEPA
3.10	Epidemic monitoring through IDSR – reports disseminated, reporting for provision of buffer stock	X	X	X	X	X	X	X	X	X	X	X	X		WHO	WHO, MoH
3.11	Coartem consumption monitoring system – roll out of tracking system				X	X	X	X	X					30,000	MACEPA	MoH (Logistics Specialist)
3.12	Malaria drug stockout monitoring – IDSR, create linkage with PHO, linkage with monthly drug return	X			X			X			X				WHO	WHO, MoH
3.13	HMIS revision input (phase 1- HMIS design input, phase 2-IT development	X	X	X	X	X								50,000	EU, MACEPA?	MoH, EU, MACEPA, WHO
Activity 4.0 Evaluation																
4.1	National Malaria M&E Checklist/Evaluation		X	X										5,000	MACEPA	
4.2	Malaria expenditure/economic impact evaluation resulting from scale-up (4-8 districts)													(?)	MACEPA	MACEPA, NMCC, MoH
4.3	Evaluation of collection of consumption data for antimalarial drugs													25,000	MACEPA	PHO (Southern), MoH NMCC
4.4	Evaluation of the ITN programmes Progress report for consolidation of delivery mechanisms and experiences learned 2004-2007 Delivery and utilisation of ITNs to boarding schools									X	X			15,000	MACEPA	MoE, MACEPA, WHO, UNICEF, Global Fund, World Bank, SFH, CHAZ
4.5	District evaluation of scale-up – Choma district													(?)	MACEPA	MACEPA, Mach/MIAM
4.6	Evaluation of malaria interventions delivered through facilities (facility survey, service availability mapping (SAM)							X	X	X				100,000	MACEPA / WHO	NMCC, MoH, MACEPA, WHO
Activity 5.0 Reporting																
5.1	National M&E Plan – update and printing			X	X	X								5,000	MACEPA / Global Fund	
5.2	Establish clear linkages with the NMSP 06-11															
5.3	Costing of the National Malaria M&E Plan															

Table 7. Monitoring and Evaluation Plan 2007

Activities		Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	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			
5.4	Prepare Annual Malaria Status Report 2006	X	X											5,000	MACEPA	MACEPA, WHO, UNICEF
5.5	Prepare 5 year malaria statistical bulletin							X	X	X				5,000	MACEPA	World Bank, MACEPA, WHO, UNICEF, SFH, CHAZ
5.6	Donor reporting (Global Fund, WB Booster, USAID, MACEPA) narrative													2,000	Global Fund	NMCC, MoH
5.7	Continue utilising www.nmcc.org.zm for communication of M&E related products and documents	X	X	X	X	X	X	X	X	X	X	X	X	5,000	MACEPA	MACEPA, MoH NMCC
5.8	Peer-reviewed articles related to scale-up of interventions and linking coverage and impact													20,000	MACEPA	MACEPA, NMCC
Activity 6.0 Capacity development																
6.1	NMCC National M&E performance assessment scheme, Monitoring the implementation of the 2007 Annual Plan M&E component through progress reporting and technical review			X			X			X			X	5,000	MACEPA	MACEPA, NMCC
6.2	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			X						X	X	X		28,000		NMCC, MoH. WHO, MACEPA
6.3	Communication between provinces and districts (support for maintenance of radios, support for meetings with PHOs, for example IDSR supervisory support or surveillance meetings)													15,000	MACEPA	PHO (Western), NMCC
6.4	NMCC – strengthen M&E core competencies including linkages with other programmes (HIV, TB)													10,000		MACEPA
TOTAL														**~928,000**		

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

Summary

Communication is an integral and important component in the prevention and control of malaria. Communication and provision of preventive commodities and services cannot be divorced, as one requires the other in order to achieve successful implementation of interventions. Services may be made available but if the communities do not understand the benefits of the interventions, the desired impact will not be achieved.

Goal, Objectives and Targets from National Malaria Strategic Plan

The goal is to reduce the burden of malaria morbidity and mortality in communities 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 for generating political will and resources to tackle the debilitating 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 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, IRHS, IPT, case Management) requires a package of IEC/BCC materials and the skills and resources to deliver the messages in an effective manner.

In Zambia, efforts aimed at information dissemination and communication strategies for behaviour change show great promise. 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 and placement of posters, distribution of educational materials through health facilities and community based organizations. Key partners such as ZANIS procured mobile video units and are willing to support and facilitate mobile video shows at minimum costs. The programme also utilised high profile annual events such as SADC Malaria Week and Africa Malaria Day to bring national visibility to malaria control efforts.

Action and progress during 2006

In 2006, a number of achievements were recorded and the 2007 scale-up plan builds on the success of the 2006 Action Plan. Capacity building, development and translation of IEC materials for programme areas, and partner support (BCC proposal submission to assist the programme to achieve impact) were some of the notable achievements for 2006.

Studies and surveys conducted by malaria programme partners found that current knowledge levels of malaria preventive measures are high (~90%). However, the adoption of new behaviours does not seem to follow the high level of knowledge and therefore pose a great challenge to the malaria control programme. Getting people to adopt desired behaviours will be the focus for scale-up in 2007.

Actions to be taken in 2007: detailed description of activities, targets, time frame, costs, gaps, and partner responsibilities

A critical gap in the implementation of IEC/BCC interventions is the lack of delivery mechanisms for interpersonal communication at the community and household level. Health facility workers are constrained by having little time available for IEC/BCC work. This communication gap can potentially be filled through the engagement of CHWs, NHCs, and community- and faith-based groups that can be mobilized to deliver malaria interventions and IEC/BCC messages.

To achieve the above mentioned goal, the IEC/BCC/advocacy programme will focus on maintaining high knowledge levels among members of the community. In addition, it will be very critical to develop messages that will bring about behavioural change such as increased usage of nets by the most vulnerable populations, IRHS acceptance, IPT delivery and uptake, and early care seeking. The objectives will address all programme area needs and target specific audiences, such as the school health programme targeting school-going children. Once these objectives are achieved, they will be maintained or increased to sustain the desired behaviours. The programme will strengthen partnership with key stakeholders that have technical skills in communication such as Ministry of Information and Broadcasting, HCP and SFH. Progress monitoring will be a priority.

Table 8 identifies the activities, time frames, costs, gaps and partner responsibilities for IEC/BCC/Advocacy in 2007.

Support needs for district action planning

It is noted that District Action Plans (DAPs) require support in form of resources – such as staff, finances and equipment in some districts. Resource allocation for IEC/BCC in DAPs needs to be increased if tangible scale up results are to be achieved. The national plan in terms of IEC/BCC should build on the achievements and plans that address specific IEC/BCC needs in the districts. Some districts have benefited from BCC trainings and developed District BCC Action Plans; however these plans cannot be implemented due to a lack of adequate funding. Central level shall mobilize resources, together with partners who should be encouraged to 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 working group will support districts in need of technical assistance to ensure consistency across districts in promoting malaria prevention and control to achieve equitable benefits for the community.

Support needs for partner action planning

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 a record of achievements in specific areas should be engaged to achieve impact.

Collaboration at the community, district, and national levels should be encouraged to facilitate sharing of information and development of focused messages to avoid duplication of efforts. Joint planning must be encouraged to ensure prudent use of resources to achieve a common goal and eventually the RBM, Millennium Development, and national development goals.

Table 8. IEC BCC Advocacy Plan 2007

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				
Objectives:																			
Activity 1.0 BCC programme development research																			UNZA, HCP, MACEPA, WHO, UNICEF, ZANIS
1.1	Assess BCC research needs															3,000			
1.2	Conduct behavioural research															100,000			
1.3	Dissemination meeting															5,000			
1.4	Conduct study to assess availability of IEC materials in districts					X													
	Sub Total															**108,000**		**108,000**	
Activity 2.0 Distribution of the communication strategy in the 72 districts by the end of 2007																			CHAZ, GF, HCP, MACEPA, ZANIS
2.1	Conduct provincial launch of the communication strategy	Communication strategy distributed	72 Districts			X													
2.2	Orient district staff to the communication strategy					X													
2.3	Distribution of the communication strategy					X													
	Sub Total															**30,000**		**30,000**	
Activity 3.0 Behavioural Change Communication Capacity Building																			CHAZ, GF, HCP, MACEPA, ZANIS
3.1	Conduct training	Orientations conducted	7 Provinces					X		X	X	X	X						
3.2	Development of district BCC Action Plans							X											
	Sub Total															**126,000**			

Table 8. IEC BCC Advocacy Plan 2007

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				
3.3	Orientation of the NHCs, MA, CBOs, FBOs																		
3.4	Support for implementation of District BCC Action Plans (Disbursed to PHO)															**90,000**			
3.5	Formation, TORs and budget for IEC/BCC provincial and district committees															**9,000**			
3.6	Monitoring of district BCC implementation						X		X					X		**10,000**			
	Sub Total															**235,000**	**92,000**	**143,000**	
Activity 4.0 Production of IEC materials																			
4.1	Meetings to coordinate and review existing IEC materials (CM, IRS, ITN, IPT)	Number of targeted areas with IEC materials	Central (national) and all districts		X											**5,000**			HCP, CHAZ, GF, MACEPA, SFH, ZANIS
4.2	Printing of translated rapid diagnostic test kits (RDTs) job aids				X											**15,000**	**25,000**		GF
4.3	Development and distribution of IEC materials (CM, IRS, ITN, IPT/ANC, EM severe malaria)					X	X										**25,000**		GF
4.4	Development and distribution of IEC materials for the School Health programme								X	X	X						**46,000**		WB
4.5	Refurbishment of billboards					X	X	X	X	X	X	X	X	X	X	**80,000**			
	Sub Total															**100,000**	**96,000**	**4,000**	
Activity 5.0 Support behaviour change communication proposals																			
5.1	Orientation meeting of BCC implementing partners	Proposals supported and activities monitored	5 Proposals						X							**2,000**			WB, CHAZ, HCP, MACEPA, ZMF
5.2	Financial support to implementing partners								X							**250,000**			

Table 8. IEC BCC Advocacy Plan 2007

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				
5.3	Supervision and technical support visits									X	X	X	X	X	X	**10,000**			
5.4	Evaluation														X	**10,000**			
	Sub Total															**272,000**		**272,000**	
Activity 6.0 Production of drama documentaries in three local languages (Luvale, Lunda and Kaonde)																			
6.1	Technical meetings	Drama documentaries	Three		X	X													CHAZ, SFH, NCP, MACEPA, ZMF
6.2	Production of television drama documentary					X										**7,500**		**7,500**	
6.3	Airing of drama documentary															**100,000**		**100,000**	
	Sub Total															**107,500**		**107,500**	
Activity 7.0 Advocacy and coordination meeting																			
7.1	Preparatory meetings	Advocacy meetings conducted	2 National and 9 Provincial			X	X	X								**5,000**		**5,000**	CHAZ, HCP, MACEPA, WHO, UNICEF, ZMF
7.2	Development of advocacy information kits						X	X								**3,000**		**3,000**	
7.3	Meeting with MPs, House of Chiefs, FBOs						X	X								**120,000**		**120,000**	
7.4	Monitor implementation of community action points													X	X	**10,000**		**10,000**	
	Sub Total															**138,000**		**138,000**	
Activity 8.0 Community mobilisation																			
8.1	Review and development of radio and television scripts and discussion guides	Community activities conducted	72 Districts													**10,000**			GF, HCP, MACEPA, WHO, UNICEF, SFH, ZANIS

Table 8. IEC BCC Advocacy Plan 2007

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				
8.2	Development of radio and television spots (CM, IRS, ITN, IPT)						X	X	X	X	X	X	X	X	X	**2,000**			
8.3	Subcontract production of radio and television spots						X	X	X	X	X	X	X	X	X	**20,000**			
8.4	Broadcast of spots and programmes			X	X	X	X	X	X	X	X	X	X	X	X	**250,000**			
8.5	Mobile video shows			X	X	X	X	X	X	X	X	X				**100,000**			
8.6	Orientation of community based groups (NHCs, MA, CHWs, TBAs, CBOs, PHLWAs)						X	X	X	X	X	X	X	X	X	**50,000**			
8.7	Monitoring and evaluation															**5,000**			
	Sub Total															**437,000**	**70,000**	**367,000**	
Activity 9.0 Commemoration of Africa Malaria Day and SADC Malaria Week																			
9.1	Preparatory meetings	Malaria days commemorated			X											**5,000**			CHAZ, HCP, MACEPA, WHO, UNICEF, SFH, ZANIS, GF, USAID
9.2	Development and distribution of guidelines and IEC print materials				X											**30,000**			
9.3	Development and broadcast of spots					X	X									**30,000**			
9.4	Mobile Video Shows						X									**50,000**			
9.5	Technical support to districts				X	X	X									**10,000**			
9.6	Commemoration (Main Day Activities)						X								X	**100,000**			
9.7	Monitoring and evaluation				X	X	X									**2,000**			
	Sub Total															**227,000**	**22,000**	**205,000**	
Activity 10.0 Sensitisation of communities during Child Health Week																			

Table 8. IEC BCC Advocacy Plan 2007

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				
10.1	Preparatory meetings	IEC activities conducted	72 districts		X						X					**1,000**			MACEPA, WHO, UNICEF, HCP, CHAZ, ZANIS
10.2	Development and distribution of guidelines and IEC materials					X	X		X			X				**50,000**			
10.3	Development and broadcast of spots															**15,000**			
10.4	Mobile video shows						X							X	X	**10,000**			
10.5	Community and advocacy meetings						X		X							**2,000**			
10.6	Orientation of district and provincial staff						X									**10,000**			
10.8	Monitoring and evaluation								X					X	X	**10,000**			
	Sub Total															**98,000**	**10,000**	**88,000**	
Activity 11.0 Sensitisation of communities during the measles campaign																			
11.1	Preparatory meetings	IEC activities conducted	Measles districts													**1,000**			MACEPA, WHO, UNICEF, HCP, ZANIS
11.2	Development and distribution of guidelines and IEC materials															**50,000**			
11.3	Mobile video shows															**15,000**			
11.4	Conduct drama performances															**10,000**			
11.5	Community and advocacy meetings															**2,000**			
11.6	Orientation of district and provincial staff															**10,000**			
11.7	Monitoring and evaluation															**10,000**			

Table 8. IEC BCC Advocacy Plan 2007

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				
	Sub Total															**98,000**		**98,000**	
Activity 12.0 Training for Journalists																			
12.1	Preparatory meetings	Journalists trained	40 journalists		X											**1,000**			MACEPA, WHO, HCP, CHAZ, ZANIS, MISA Primus med.
12.2	Development of training materials				X											**2,000**			
12.3	Conduct training					X										**15,000**			
12.4	Provide technical support					X	X	X	X	X	X	X	X	X	X	**3,000**			
12.5	Monitoring and evaluation						X		X	X	X	X	X	X	X	**0**			
	Sub Total															**21,000**		**21,000**	
Activity 13.0 Holding of the 2007 Media Awards																			
13.1	Preparatory meetings	Journalists awarded	10 Journalists			X										**2,000**			MACEPA, WHO, HCP, CHAZ, ZMF, ZANIS, MISA
13.2	Launch and placement of adverts in the media (print and Electronic)						X									**5,000**			
13.3	Review and selection of submitted articles and programmes															**2,000**			
13.4	Media Award Ceremony													X		**10,000**			
13.5	Monitor malaria stories in the media						X	X	X	X	X	X	X	X	X	**0**			
13.6	Evaluation														X	**2,000**			
	Sub Total															**21,000**		**21,000**	
Activity 14 Participation in Agriculture and Commercial Show and International Trade Fair																			
14.1	Technical meetings	Report	2 Shows					X	X	X						**1,000**			IEC Committee,

Table 8. IEC BCC Advocacy Plan 2007

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				
																			MACEPA, GF
14.2	Stand preparations								X	X	X					**5,000**			
14.3	Production, distribution and display of IEC materials					X	X									**10,000**			
	Sub Total															**16,000**		**16,000**	
Activity 15 Mobilisation of Traditional Healers																			
15.1	Preparatory and technical meetings	Traditional Healers oriented	9 Provinces													**2,000**			ZMF, WHO, CHAZ, THAPAZ, MACEPA
15.2	Development of IECs															**10,000**			
15.3	Orientation of traditional healers (patient education, referral of severe malaria, community mobilisation)									X	X					**0**			
15.4	Monitoring and evaluation															**2,000**			
	Sub Total															**14,000**		**14,000**	
Activity 16 Commemoration of other days (World AIDs Day, World Health Day etc)																			
16.1	Preparatory and technical meetings	Traditional healers oriented	9 Provinces													**2,000**			WHO, HCP, ZMF, CHAZ
16.2	Development of IECs															**10,000**			
16.3	Orientation of traditional healers (patient education, referral of severe malaria, community mobilisation)									X	X					**50,000**			
16.4	Monitoring and evaluation															**2,000**			
	Sub Total															**64,000**		**64,000**	
GRAND TOTAL																**1,986,500**	**290,000**	**1,696,500**	

3.6 Operations Research

Summary

The operations research unit has a mandate to provide timely, accurate and relevant information regarding the effectiveness of various malaria control interventions. Evidence-based 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 but also to ensuring that the best approaches are explored and used to refine the implementation process. This ensures that best practices are adhered to so as to maximise the desired health outcomes.

In order to provide access to information 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. Abstract presentations at both local and international conferences are made to share key information. Journal publication of results and posting of reports on the NMCC website have also been explored.

Given the challenge to ensure that credible, ethical research is conducted, capacity building for research is also an important agenda item on operations research activities. This ensures broad participation from multidisciplinary angles of research. Increased participation improves 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 their 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.

Goals, Objectives and Targets from National Malaria Strategic Plan

Goal

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

Objective/Targets

1. To identify priority areas and stimulate operations research in malaria control.
    - At least five major study proposals developed and approved per year.
    - At least twenty district or community-based (small scale) study proposals developed and approved per year.

2. To build capacity for research on malaria (and for public health in general).
    - 100% of critical district health personnel (eg. district directors and managers) trained in operations research by 2011.
    - At least five graduate students trained in operations research per year.
3. To increase stakeholder participation in research.
    - Completion, publication and distribution to districts of “Malaria Research Guidelines for Districts” by the end of 2007.
4. 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.

5. To advocate for use of results in influencing policy decision making and programming.
    - 50% of policies related to malaria control should be influenced by research evidence.

Action and Progress during 2006

1. Operations research.
    - Trained students at MSc/MPH in operations research.
    - Completed seven surveys/studies.
    - Provided small grants to five students and one DHMT.
    - Six proposals developed and approved.
    - Three quarterly meetings for OR held.
2. Capacity building.
    - Trained students at MSc/MPH in operations research.
    - Training curriculum developed for malaria managers.
    - Multidisciplinary human resource mobilization of other health workers to participate in research.
3. Timely dissemination of research findings.
    - One publication, five in progress.
    - Six abstracts presented at conferences and seminars.
4. Advocate for policy decision based on evidence.
    - Policy revision was made in 2006, to allow use of AL in children between 5 to 10kg based on evidence from East Africa.

Challenges in 2006

- Funds not flowing in time for implementation of planned activities (hence crisis management).
- Lack of computer dedicated to storage of databases.
- High staff turnover at DHMT level.

- Inadequate transport for field activities (resorted to hiring).
- Research findings not readily utilised when developing implementation plans.
- Dissemination of findings remains a big challenge. Even though there are adequate human resources in the working group drawn from various institutions in the country, there is need to recognise and retain the much-needed expertise by way of giving financial support for their time and expertise spent on malaria related issues. This will assure continuity and timely completion of activities.

Actions to be taken in 2007

Continue with annual research activities

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

Conduct research on the priority areas in which proposals are already developed and ethical approval has been obtained.

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

Develop proposals for 2008 priority research issues as outlined in the research plan.

Gap Analysis

Where are we?

- Priority research areas have been identified.
- Proposals have been developed and approved (awaiting funds).
- Multisectoral, multidisciplinary working group already in place.
- Most of the routine activities were conducted in 2006.
- Awaiting funds for proposals already developed.

Where do we need to be?

- Updated databases on malaria research available.
- Funds made 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 IRHS and ITN.
- Move from planning and re-planning to implementing.
- Disseminate research findings to all stakeholders.

Detailed description of activities, targets, time frame, costs, gaps, and partner responsibilities

The detailed activities, time frames, costs, gaps and partner responsibilities are listed in Table 9.

Support needs for District Action Planning

The district has been identified as a key stakeholder in the 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.

Support needs for Partner Action Planning

Recognizing that malaria control is not the responsibility of the government alone, there is need for partnership strengthening 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.
- Increasing financial support for malaria related activities in the partner action plans.
- Timely reporting to donor partners.

Issues for New Donor Resources including Global Fund Round 7 Application and Presidents' Malaria Initiative planning

The country has been implementing various interventions such as IRHS, ITN distribution, change of drug policy and IPTp in order to control malaria and scale-up efforts have been taking place. Although some small-scale studies have been conducted, there have been no major impact studies in the country. There is need to conduct major impact assessment in order to evaluate the effect of the above interventions on the burden of malaria in the country.

Impact markers

Child mortality, maternal mortality, incidence, prevalence, anaemia rates, birth weight, severe malaria rates, case fatality rates, entomological indices.

In order to increase stakeholder participation, there is need to provide financial support to the already available local and district partners to enable them to implement malaria prevention and control activities.

There is a need to lobby for funding for key operations research studies such as insecticide bioassays and drug utilisation (effectiveness, compliance, and quality).

Table 9. Operations Research Plan 2007

Activities		Indicators	Targets	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
UNIT	Operations Research	Available evidence for decision making	Information available on programme effectiveness and disseminated to guide decision making	J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
Goal To provide timely and sound evidence to guide implementation of malaria control and inform policy decision making																			
Objective 1: To identify priority areas and stimulate operations research for malaria control																			
Activity 1: Ongoing Activities and Programs																			
Sub-activity 1.1	Compliance monitoring (patient & health worker)	% patient compliance, % HW prescribing AL correctly	7 districts		X	X										64,875	64,875	-	NMCC, Chainama, UNZA, DHMTs, WHO, UNICEF, WB, MACEPA, MIAM
1.2	Antimalarial drug efficacy monitoring	% ACPR of first line antimalarials	7 districts			X	X	X	X							217,436	217,436	0	NMCC, Chainama CHS, UNZA, DHMTs, TDRC, MIAM, WHO, WB, MACEPA
1.3	Parasitological and entomological monitoring in IRS districts	parasite prevalence, KDRs, MRs in IRS regions	8 IRS districts		X	X	X	X	X	X	X	X	X	X	X	100,000	13,800	86,200	NMCC, USAID, World Bank, DHMTs, UNZA, TDRC, Chainama
1.4	Bioassay on insecticides for ITNs and LLITNs	Parasite rates, KDRs, MRs	ITNs mass campaign districts				X				X				X	50,000	50,000	-	NMCC, WHO, UNICEF, WB, UNZA, TDRC, IVCC
1.5	Hold quarterly research working group meetings	no of quarterly meetings	ORWG		X		X			X			X			25,000	25000	-	ORWG
1.6	Subscriptions to publications and journals	no of journals or e-library subscribed to	malaria resources	X					X		X	X	X	X	X	6,000	6,000	-	NMCC, BU, UNZA, TDRC, MIAM, MSHR, CHESSORE
Activity 2: Priority Activities Already Identified (funding delayed)																			
Sub-activity 2.1	Malaria policy analysis (stakeholder and implementation analysis)	Report finalised and disseminated on successes and challenges	10 districts, stakeholders		X	X	X	X								47,558	47558	-	NMCC, Mwengu, DHMTs, TDRC, WB, UNZA, UTH
2.2	Follow-up to the cost-effectiveness analysis of malaria interventions	ACER/ICER of treatment and diagnosis	6 districts						X	X	X	X	X	X	X	40,000	0	40,000	NMCC, UNZA, WHO, WB

Table 9. Operations Research Plan 2007

Activities		Indicators	Targets	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
UNIT	Operations Research	Available evidence for decision making	Information available on programme effectiveness and disseminated to guide decision making	J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
2.3	Feasibility of using ACTs and RDTs for home management of Malaria	AL and ACTs piloted at community level	7 districts					X	X	X	X	X	X	X	X	54,000	64,000	10,000	NMCC, PRA, TDRC, CHU, MACEPA, UNICEF, UTH
2.4	Impact of malaria interventions on malaria morbidity and mortality	outcome and impact of malaria control interventions	10 MIS districts			X	X	X	X	X	X	X	X	X	X	70,517	70,517	-	NMCC, DHMTs, MACEPA, TDRC, MIAM, MSHRC, UNZA, UTH, CHESSORE
2.5	Malaria in pregnancy evaluation (efficacy, IPT1/IPT2, KAP, impact)	ACPR and safety of SP in pregnancy	10 districts				X	X	X	X	X	X	X	X	X	50,000	53,000	3,000	NMCC, UNZA, TDRC, MACEPA, MIAM, CHCHS, MSHR
2.6	KAP Study on ITNs/IRS in target districts	% of people with correct KAPs	IRS and ITN districts			X	X	X								50,005	85,350	- 35,345	NMCC, CHESSORE, UNZA, DHMTs, WB
2.7	Mapping geographical distribution of malaria parasite species in Zambia	Zoning of parasite distribution by region	Country epidemiological zones					X	X	X	X					10,000	0	10,000	NMCC, WB, UNZA, TDRC, MIAM
2.8	Quality assurance of malaria diagnosis strategies in health facilities	% lab personnel correctly diagnosing malaria, % labs with adequate diagnostic capacity	XX diagnostic centres		X	X	X	X	X	X	X	X	X	X	X	52,929	52,929	- 0	NMCC, UNZA, TDRC,DHMTs, UTH
2.9	Modeling future impact of malaria control interventions	Model developed and updated	all interventions areas							X	X	X	X	X	X	30,000	30,000	-	NMCC, UCT/UNZA, WB, MIAM
2.10	K-O TAB 1-2-3 LLNs Field Evaluation	Parasite rates, KDRs, MRs	Milenge district			X	X	X					X	X	X	15,000	15,000	-	NMCC, UNICEF, DHMTs, UNZA, IVCC
Activity 3: Proposal writing for new activities																			
Sub-activity 3.1	Malaria and HIV coinfections study						X	X	X	X	X	X	X			4,000	0	4,000	ORWG
3.2	Comparing efficacy of cotrimozole vs SP for IPTp						X	X	X	X	X	X	X			4,000	0	4,000	ORWG

Table 9. Operations Research Plan 2007

Activities		Indicators	Targets	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
UNIT	Operations Research	Available evidence for decision making	Information available on programme effectiveness and disseminated to guide decision making	J	F	M	A	M	J	J	A	S	O	N	D				
				1	2	3	4	5	6	7	8	9	10	11	12				
3.3	Evaluation of IPTc						X	X	X	X	X	X	X			4,000	0	4,000	ORWG
3.4	Mapping vector distribution	EIR, spatial distribution					X	X	X	X	X	X	X			4,000	0	4,000	ORWG
3.5	Research and development	Artemisia annual farming, mapping AL resistance marker baseline study	country level collaborations				X			X	X	X	X	X		10,000	0	10,000	NMCC, UNZA, TDRC, MIAM, MOA, MSTVT
Objective 2: To capacity build for research on malaria (public health in general)																			
1	Finalise and distribute research guidelines	Guidelines finalised	72 districts have guidelines				X	X	X							1,600			ORWG, WB
2	Training district level staff in basic research methods	No. of personnel trained	District level staff						X			X		X		112,500	50,000	62,500	ORWG
3	Post graduate research support	No. of students supported	MSc/MPH students							X	X					20,000	20,000	-	NMCC, MACEPA, WB, GFATM, UNZA
4	Attending scientific meetings	No. of meetings and papers presented	Scientific meetings			X			X			X	X			20,000	20,000	-	MACEPA, WB, GFATM, Novartis, ORWG
Objective 3: Increasing stakeholder participation in research																			
1	Organising and participating in stakeholder meetings	No. of meetings	6 meetings													13,250	0	13,250	ORWG
2	Sharing strategic plan with donors who can buy into proposed activities	TBA	TBA													-	0	-	ORWG
3	Review the planning guidelines and provide technical support to DHMTs	Guidelines reviewed					X	X	X							10,000	0	10,000	ORWG
4	Providing technical support to DHMTs on research	No. of districts supported					X	X	X	X	X	X	X	X	X	20,000	0	20,000	ORWG

Table 9. Operations Research Plan 2007

Activities		Indicators	Targets	Suggested Time Frame for Implementation												Est. Cost (US$)	Funding	Gap	Partners
UNIT	Operations Research	Available evidence for decision making	Information available on programme effectiveness and disseminated to guide decision making	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	Providing financial support to partner institutions on malaria research	No. of institutions assisted	5 institutions		X	X	X	X	X	X	X	X	X	X	X	100,000	0	100,000	ORWG
Objective 4: Timely dissemination of research findings																			
1	Establishing and updating a malaria database	Database created	Updated database				X	X	X	X	X	X	X	X	X	8,000	0	8,000	ORWG
2	Local research bulletin established	Core group formed, editorial board identified, sponsors	Local health research results					X	X	X	X	X	X	X	X	5,000	0	5,000	ORWG
3	Annual dissemination meeting	1 meeting	All stakeholders												X	20,000			ORWG
4	Publishing of research findings in peer reviewed journals				X	X	X	X	X	X	X	X	X	X	X				ORWG
5	Attending scientific meetings						X			X			X		X	20,000	20,000	-	ORWG
6	Supporting NHRC bi-annual meeting														X	10,000		10,000	ORWG
Objective 5: To Advocate for the use of results in influencing policy decision making and programming																			
1	Meeting with MOH sub-committees for evidence review						X			X			X		X	10,000	0	10,000	ORWG
TOTAL COST																**1,279,670**	**795,465**	**484,205**	

3.7 Programme Management

Summary

As we enter 2007, the year presents great opportunity for scale-up of malaria control in the nation. Programme management will be a critical aspect of the successful implementation of all the work ahead. In this section, we detail the goals and objective, the recent progress, the challenges and the anticipated action.

Goals, Objectives and Targets from National Malaria Strategic Plan

Objective: To achieve effective programme management through strengthening national, provincial and district health system capacity to effectively and efficiently plan, implement and manage malaria control efforts in Zambia.

The NMSP identified key categories for specific action to achieve malaria control scale-up nationwide. These include: 1) organizational alignment; 2) programme planning and design; 3) human resource management; 4) financial management; 5) procurement and supply chain management; 6) coordination and partnerships; and 7) financing and resource envelope. With recent identified needs, this action plan also includes priorities in communications, logistics and infrastructure support, and institutional capacity building. The NMSP has a set of outputs for each of the components.

Action and Progress during 2006

Actions and progress in each of the activity categories during 2006 are summarized in Table 10.

Table 10. Summary of 2006 Activities and Accomplishments

Activity category	Accomplishments during 2006
Organizational alignment	The restructuring of and the transfer of Principle Recipient (PR) status from CBOH→ MoH was completed;
Programme planning and design	During 2005-6, the NMSP, 3-year Business Plan, M&E Plan, IEC/BCC Draft Plan, and 2006 Action Plan for malaria control were developed; the MoH Human Resource Plan has been developed with input from NMCC
Human resource management	New leadership and senior staff have been recruited to the NMCC and MoH including: Coordinator, Deputy Coordinator, NMCC accountant, MoH malaria accountant; additional staff from partners have been recruited to work with NMCC addressing such areas as: IRHS, ITNs, logistics, and information officer.
Financial management	New accountants have been hired for both NMCC and for malaria in the MoH.
Procurement and supply chain	A procurement specialist has been hired and assigned to malaria for both World Bank and for Global Fund activities. ITN procurement and planning

management	for district distribution schemes have been done for ITNs anticipated in early 2007. Some ACT (Coartem) shipments have been received and early 2006 stockouts have had some resolution.
Coordination and partnerships	Connectivity with partners continues but 2006 was not a stellar year for progress
Financing and resource management	The National Health Budget has increased to 12.7% of the National Budget. There were approximately $35 million available for malaria control in 2006, although because of some challenges (e.g., Global Fund negotiations), not all was spent.
Communications	NMCC communications structure recently improved (e.g., phones, switchboard, networking extended, network server and security software installed, and NMCC website established).
Logistics and infrastructure support	Some minor renovations were concluded in the NMCC.
Institutional capacity building	UNZA public health students were engaged in the Malaria Indicator Survey training and field work.

Actions to be taken in 2007

While the NMSP has well laid-out objectives, strategies and activities, the effective implementation may be impeded by both current and consequent management deficiencies. It is therefore imperative to take an organizational profile so that weaknesses can be identified, possible solutions proposed, strengths taken into account, and threats and opportunities duly planned. This would enhance the efficiency of programme implementation and effectiveness of interventions and its impact. Through such a programme analysis, both current and consequent organizational obstacles would be strategically planned for and effectively addressed.

The programme management component identifies these issues under five broad categories:

- **Organizational alignment**: Guidelines, situational analysis, and needs assessment
- **National malaria strategies, business and operational plans**: The strategic plan will be translated into a working business plan and annual work plans.
- **Human resources**: Addressed here are issues pertaining to capacity building, retention schemes and overall incentive structures.
- **Financial management**: The infusion of various sources of finances in support of the National Malaria Control Programme will entail the need for strengthening the management systems for effective programme implementation.
- **Partnership with private and public partners**: In line with the infusion of financial resources, there are also multiple partners making in kind contributions, for which

partnership coordination is essential, at all levels of the system in malaria control and prevention.

- **Resource Mobilization**: Although substantial funding has been mobilized for all components of the national malaria intervention activities, gaps continue to exist that have been identified and as such resources mobilization will be an important activity to assure the long term durability of the program.

The NMCC serves an increasingly important role in policy development, programme monitoring and evaluation, and partner coordination; its capacity as well as its authority will be significantly enhanced in assuring successful programme implementation to achieve impact. The programme management component seeks to support overall smooth programme implementation.

Rationale

- Guidelines are inadequate or need revision.
- Commodities are not on site in time.
- Research activities need coordination.
- Unified M&E required to track progress and guide implementation.

The following areas are identified to address these shortcomings and to strengthen programme management:

- Organizational alignment: guidelines, situation analysis, needs assessments.
- Strategic, business and annual plans.
- Human resources: Inventory of expertise, capacity building in programme management.
- Financial management.
- Partnerships: community response and representations on committees.
- Resource Mobilization: identify available resources and gaps.
- M&E, surveillance, and BCC.

The actions to be addressed in 2007 are listed in the spread sheet below along with targets, time frames, costs, and partner responsibilities.

Support needs for District Action Planning

The Programme Management activities are committed to aligning with the development and strengthening of District Action Planning. This is delineated in the sections above on organizational alignment and policy, planning, and design. As noted at the outset, this 2007 Action Plan has the stated objective of improving malaria control action at all levels with greatest emphasis on the work in districts, communities, and homes.

Support needs for institutional capacity building

The objective of institutional capacity building is to strengthen health system for malaria control and treatment. The main activities under this objective will contribute towards the strengthening of the national human resource plan through support to the human resource retention scheme, preservice training programmes and infrastructure support

for training institutions. The institutions included are the University of Zambia School of Medicine's community medicine and parasitology units, the General Nursing Council of Zambia, Chainama College of Health Sciences and Evelyn Hone College (see Table 11).

Constraints encountered during 2006

- Poor state of classroom facilities.
- Inadequate transport to undertake planned activities.
- Shortage of human resources in training institutions.
- The malaria curriculum has not been adapted to Zambia.
- Shortage of teaching materials and equipment such as microscopes and diagnostic kits.

Activities for 2007 are those that were budgeted for under Global Fund Round 4 Phase 1 and whose funds have not yet been received. The activities relate to refurbishment of existing buildings, procurement of equipment, and support to train students. A total of US$ 262,000 will be required for these activities. The refurbishment of buildings and procurement of equipment will be handled by the MoH and will be included in the MoH procurement plan.

Additionally, support to the University of Zambia community medicine staff will be required in 2007. An amount of US$ 43,200 for human resource retention will be brought forward from Global Fund Round 4 Phase 2. This has been proposed to avoid loss of staff to migration to greener pastures.

Table 11. Summary of funds needed for Institutional Capacity Building

Training Institution	Amount (US$)
University of Zambia School of Medicine, Community Medicine	8,680 (Round 4, Phase 1)
University of Zambia School of Medicine, Community Medicine	43,200 (Round 4, Phase 2)
University of Zambia School of Medicine, Parasitology	7,750
Tropical Disease Research Centre	119,100
Chainama College	31,653
Medical Council of Zambia	26,000
General Nursing Council	123,000
Evelyn Hone College	12,500
Total	**371,883**

Table 12. Programme Management Plan 2007

Activities		Target	Suggested Time Frame For Implementation												Est. cost (US$)	Gap	Partners and Partner Responsibilities/ Commitments
			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: Effective Programme Management																	
Activity 1.0 Organizational alignment and coordination																	
1.1	Strengthen relationships within the MOH Units (IRH, CHN, HIV, TB and EH)				X	X	X	X	X	X	X	X	X	X	$2,381		MoH/NMCC
1.2	Strengthen and facilitate the technical working groups.	Each working group (OR, ITN, IRS, CM, M&E) is supported for quarterly meetings and documentation of outcomes			X	X	X	X	X	X	X	X	X	X	$3,810		MoH/NMCC
1.3	Strengthen relationships with other ministries				X	X	X	X	X	X	X	X	X	X	$1,190		MoH/NMCC
1.4	Improve coordination at Provincial and district levels, including formation of working groups (including partners) to guide programme implementation	Quarterly supervisory and mid year reviews.							X	X	X				$166,667		MoH/NMCC
1.5	Improve coordination with implementing partners	Implementing partners to provide update on activities for past quarter and plans for coming quarters.				X				X			X		$1,905		MoH/NMCC
Activity 2.0 Policy, program planning and design																	
2.1	Attend to ITN coverage maintenance policy	Hold meeting with ITN WG and stakeholders to review maintenance options/opportunities			X	X									$1,190		MoH/NMCC, and other malaria partners [USG (SFH, HSSP) MACEPA, MC, UNICEF, WHO, CHAZ, ZMF
2.2	Attend to ACT/RDT policy for community use	Hold meeting with CM WG and stakeholders to review community antimalarial drug use and diagnostics options/opportunities			X	X									$1,190		MoH/NMCC, CHAZ, ZMF, UNICEF, MC, USG
2.3	Align NMCC planning with the cycle of the annual work plans at national and district level	Hold preparatory meeting with key stakeholders for alignment of planning				X	X	X	X	X	X				$0		MoH/NMCC, HSSP, CHAZ, MC
2.4	NMCC staff to participate in the MOH annual work planning meeting.	Staff submit draft work objectives and plans in appropriate time frames for annual planning									X				$0		MoH/NMCC
2.5	NMCC staff to participate in the provincial planning and launch and review meetings.	Staff submit draft work objectives and plans in appropriate time frames for annual planning							X	X	X				$9,524		MoH/NMCC

Table 12. Programme Management Plan 2007

Activities		Target	Suggested Time Frame For Implementation												Est. cost (US$)	Gap	Partners and Partner Responsibilities/ Commitments
			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	Ensure that policies and best practices are communicated to all levels.	Establish system for communications for all levels including group emails and other methods	X	X	X	X	X	X	X	X	X	X	X	X	$14,762		MoH/NMCC
Activity 3.0 Human resource management																	
3.1	Four case management and MIP staff two of whom will be based in IRH and CHN, respectively.	Staff recruited and hired			X	X	X								$64,000	3 staff	MoH/NMCC, MACEPA, WB Booster
3.2	Increase staffing and capacity for IEC/BCC	Staff recruited and hired			X	X	X								$16,000	1	MoH/NMCC, MACEPA
3.3	Increase staffing and capacity for M&E	Staff recruited and hired													$16,000		
3.4	Training and capacity building for NMCC staff in their respective areas	Documented training needs assessment		X	X							X	X		$11,905		MoH/NMCC, WHO, UNICEF, MACEPA, MC, WB Booster
3.5	Undertake team building exercises regularly	Conduct one team building retreat in April and have on-going specific staff support activities.			X	X	X	X	X	X	X	X	X	X	$35,714		MoH/NMCC
3.6	Link HR needs in NMCC to MOH and National HR Plan	Participate in planning of May HR launch					X								$0		MoH/NMCC
3.7	NMCC staff retention scheme																MoH/NMCC
Activity 4.0 Financial management																	
4.1	Develop a single accounting system across all external donor resources and government	System developed to identify financial flow delays and address them													$60,000		MoH/NMCC, MACEPA, WB Booster, WHO
4.2	Develop a single reporting system across all external donor resources and government	System developed to report financial flows and activity performance													$20,000		MoH/NMCC
4.3	Provide quarterly performance and financial reports	Timely submission of reconciled financial and performance reports													$2,381		MoH/NMCC
Activity 5.0 : Procurement and supply chain management (PSM)																	
5.1	NMCC to contribute to the MOH procurement plan	Proactively meet with MOH procurement unit and establish timely meetings to assure timely procurement													$0		MoH/NMCC, WB Booster

Table 12. Programme Management Plan 2007

Activities		Target	Suggested Time Frame For Implementation												Est. cost (US$)	Gap	Partners and Partner Responsibilities/ Commitments
			J	F	M	A	M	J	J	A	S	O	N	D			
			1	2	3	4	5	6	7	8	9	10	11	12			
5.2	Develop a system of time frame management for PSM	Per 5.1, achieve a timeframe (calendar) for all procurements and subsequent distribution to districts and communities													$0		MoH/NMCC, WB Booster
5.3	Strengthen District capacity for quantification, stock management and consumption data reporting	Standardized reporting format used for reporting of commodities and distribution / consumption													$9,524		MoH/NMCC, WB Booster
5.4	Strengthen national capacity to compile and utilise reported data	M&E unit able to compile and analyse all data and use the information													$595		MoH/NMCC, WB Booster
5.5	Develop a standard quarterly procurement reporting format	NMCC develops the format and distributes and uses this format			X	X									$595		MoH/NMCC, WB Booster
5.6	Conduct training on commodity and drug specification	Work with Procurement Unit to develop training materials and conduct training for commodities and drugs PSM		X	X										$47,619		MoH/NMCC, WB Booster
Activity 6.0 Financing and resource envelope																	
6.1	Complete a robust Gap analysis	Completed Gap analysis for GF Round 7 and for other donors (e.g., PMI)		X	X										$60,000		MoH/NMCC, all malaria partners
6.2	Submit a Proposal for GFATM R7 application	Comprehensive and detailed Malaria Scale up for Impact proposal submitted		X	X	X	X	X							$100,000		MoH/NMCC
6.3	Harmonise PMI workplan with NMCC's plan	Actively participate in PMI mission and provide essential information for malaria control scale up			X	X									$0		MoH/NMCC
6.4	Establish gaps in district financial resource needs	Participate in Provincial level meetings during District Planning cycle to establish these financial gaps				X	X	X							$23,810		MoH/NMCC
6.5	Establish in country Partner resource needs for technical and implementation activities in support of the NMSP	Participate in Partner planning meetings to establish these financial gaps		X	X										$0		MoH/NMCC, all malaria partners
Activity 7.0 : Communications															$0		
7.1	Build a robust communications network and introduce network management system	Complete NMCC IT network and systems upgrading	X	X	X	X									$0		MoH/NMCC, MACEPA
7.2	Develop/update directory for national, provincial, district levels and for Partners to facilitate communication	Complete NMCC, MOH, provincial and district directory				X									$0		MoH/NMCC, MACEPA
7.3	Assess district and provincial Communication needs	Complete assessment of provincial and district communication needs					X	X	X	X	X	X	X	X	$0		MoH/NMCC

Table 12. Programme Management Plan 2007

Activities		Target	Suggested Time Frame For Implementation												Est. cost (US$)	Gap	Partners and Partner Responsibilities/ Commitments
			J	F	M	A	M	J	J	A	S	O	N	D			
			1	2	3	4	5	6	7	8	9	10	11	12			
	Support district and provincial Communication needs	Complete support to provincial and dstrict communications needs													$1,000,000		Moh/NMCC
Activity 8 : Infrastructural, logistics , and transport																	
8.1	Construct new office block and renovate existing NMCC offices	Complete resource mobilization, contract and construction for NMCC plans			X	X	X	X	X	X	X				$100,000		MoH/NMCC, MACEPA, WB-BOOSTER
8.2	Undertake renovations and refurbishments of storage facilities at provincial and district levels	Complete resource mobilization, contract and construction for provincial and district storage plans			X	X	X	X	X	X	X				$0		MoH/NMCC, WB-BOOSTER
8.3	Procure vehicles, office equipments and supplies	Complete resource mobilization and purchase of vehicles, office equipment and supplies	X	X	X	X	X								$0		MoH/NMCC, WB-BOOSTER
Activity 9.0 : Institutional capacity development																	
9.1	Develop technical support and identify resource needs for training institutions to run courses in malaria disease and malaria control studies	Establish training institution capacity curriculum needs, complete mobilization of resources and provide long term technical and financial assistance for this training													$0		MoH.NMCC, UNZA, TDRC, MACHA
Total															$1,770,762		

Section 4: Key Issues Requiring National Attention

During the course of review of the 2005 experiences in malaria control and during the planning process, several key issues have arisen that require attention at high levels for the Government of Zambia, the Ministry of Health, and key donor partners. These are described briefly below.

4.1 Financial Resources

The national effort to control malaria has a reasonable level of funding committed as we go into 2007. This is thanks to the coordinated support from the Government of Zambia, the GFATM, MACEPA support via the Bill & Melinda Gates Foundation, the World Bank Malaria Booster Programme, USAID, the World Health Organization, UNICEF, JICA, and other key bilateral donors. Thus, financial resources are not a clear barrier to conducting planned activities and achieving programme objectives. However, the longer term issues of consistency and stability of funding must continue to be addressed by senior leadership in the Zambian MoH and among the partners.

4.2 Commodity Procurement and Logistics

To conduct the work described in the action plan, most of the intervention actions require substantial commodities including:

- **ITNs**: this includes the nets themselves and insecticide for net retreatment.
- **IRHS**: insecticide for IRHS, sprayers and other materials for IRHS.
- **Diagnostics**: microscopes, slides, stain, rapid diagnostic tests for diagnosis.
- **Drugs**: including those needed for case management and IPTp.

Experience in 2005 showed that the multiple sources of funds and the multiple methods for procurement identified some partners who were highly capable of procuring, receiving and helping distribute commodities, while other mechanisms were very problematic. The national malaria programme requires high-level attention to this issue to consider efficient methods of procurement that rely on mechanisms with proven good track records and do not stress existing systems that have not historically been capable of timely procurement and receipt.

4.3 Human Resources

The Government of Zambia is implementing malaria control activities in close collaboration with the Zambia RBM partners, a group of NGOs, CBOs, and public, private, and government units. Together, these groups developed a comprehensive national plan for the rapid scale-up of malaria control coverage, with an emphasis on achieving health and economic impact within 24 months.

Malaria control programme scale-up requires the well-coordinated participation of many components of the MoH. While the NMCC serves a technical advisory and coordination role, equally important is the full involvement of several implementing programme partners, notably reproductive health, child health, and provincial and district teams.

Similarly, participation by procurement services, human resources, and planning within the MoH are critical.

The national programme scale-up plan has major implications with respect to human resources (HR), principally in the public sector. At the central level, it will be essential for the MoH and NMCC to have both adequate numbers and appropriate competencies of staff to plan and provide programmatic guidance and to ensure effective implementation. Similarly, in facilities and communities, there will be increased need for building HR capacity. The magnitude of the HR requirements for malaria programme needs analysis, as based on provisional estimates the potential costs of HR were second only to malaria drug requirements in the costing of the NMSP.

In 2006 MACEPA supported the conduct of a rapid assessment of the MoH NMCC organizational structure and staffing levels in order to prepare the Ministry for the challenges it faces with the recently launched national malaria scale-up programme. The goal was to identify the shortfall between current and required NMCC staffing levels, strategies to address recruitment and retention issues, and the amount of resources available from donor partners to meet NMCC requirements.

Currently, the NMCC has 39 full-time equivalents (FTE) although the recent MoH proposed restructuring plan will reduce this to 24 FTEs. The NMCC has been charged to provide leadership and technical direction to all levels of the MoH in carrying out Zambia's ITN, IRHS, and PECM malaria strategic goals. This includes the responsibility to build the capacity for management and operations at provincial, district and community levels to promote effective and sustained malaria control. This essential central level role requires a high level of technical competence as well as a core team with strong management and communication skills capable of providing strategic and policy leadership as well as development of systems approaches to malaria programme logistics.

A profile of management requirements for malaria control was developed based on a review of several documents, including the NMSP, the 2006 and 2007 Action Plans, and several donor MOUs and agreements with the MoH.

4.4 Staffing Levels at the NMCC

This section assesses staffing levels at the NMCC by reviewing the current positions, the restructuring recommended by the MoH review, and a proposal for expanded staffing to meet programme needs. The restructuring leaves the NMCC with roughly half the level of what was indicated by a recent MACEPA human resource needs assessment, including six fewer critical professional staff such as BCC, M&E and reduced ITN/IRHS staffing levels.

The MoH restructuring provides a total of 24 NMCC staff at a total compensation level of US$ 184,508 inclusive of the 13% pay raise. Under the proposed restructuring, the NMCC wage bill will be US$ 134,021 less than the current human resource cost. This represents a US$ 228,449 resource shortfall from the estimated level of staffing required to effectively carry out the requirements.

The NMCC has a shortfall in staffing levels and skills required to meet the leadership and technical challenges to achieve the goals set out by the MoH and donor partners. NMCC FTEs should be increased from the current 39 to 44 FTEs along with the implementation of salary levels and retention plans similar to those in existence at Zanara and the National AIDS Council (NAC). The annual cost of implementing the increased NMCC

staffing plan is estimated to be US$ 413,000 or US$ 94,000 more than the current wage bill. We found the current resource envelope for human resource salary, retention scheme, and training support will be sufficient to meet the US$ 94,000 annual resource gap. Even if the Ministry's proposed restructuring is implemented, donor funds will be available to support the US$ 229,000 annual gap between the required NMCC wage bill and the MoH wage bill.

4.5 Partnership Engagement

With recent global emphasis on scale-up for impact and the concept of the three ones (one plan, one coordinating mechanism, and one monitoring and evaluation system), Zambia has been the welcoming recipient of many strong partners in malaria control. There is need for high-level support of ongoing communication to assure continued adherence to the three ones and the strength in partnership that it generates.

4.6 Harmonizing Multiple Partner Reporting Requirements

Despite the great benefits of engagement by multiple donors, one of the challenges of multiple strong partners is the multiple reporting requirements that must be addressed by the programme. To reduce the burden on existing systems (and make more time and human resources available for the implementing actions), the RBM Partnership in Zambia needs commitment and help in achieving the *one monitoring and evaluation system* component of the three ones. That is, one system that can respond to the different partner needs and the commitment to not create new and different measures without broad consensus within Zambia as to the specific value of new measures to the programme.

Annexes

Annex 1. Emergency (Epidemic) Preparedness

Malaria is entirely endemic in Zambia. However, the levels of endemicity vary from place to place. Transmission rates country-wide are also noted to vary according to season, with higher rates during the hot and wet season from November to April. The risk of malaria transmission is greatest during this period. In Zambia, epidemics may have occurred in some areas in the past, but due to delays in reporting and forecasting system, these may have gone unnoticed. Wherever epidemics occur, there are high morbidity and mortality rates. The increase in morbidity and mortality rates can be reduced if the tools for forecasting, early detection, prevention and control are put in place.

Epidemic patterns and epidemic-prone areas

Currently, based on combination of altitude and temperature calculations, an unstable malaria area appears to be most probable on the plateau. This area constitutes an epidemic prone zone. Districts that are located on the plateau tend to experience a break in transmission due to cool temperatures during the cold, dry season. This results in low immunity of the resident population in these areas. These are termed unstable malaria areas and are prone to malaria epidemics. The areas include the following; Mpika, Serenje, Mkushi, Kpiri, Chibombo, Mazabuka, Monze, Choma and Livingstone. It is possible that more districts could be added to this list from other parts of the country.

Additionally, natural disasters like floods, drought and population displacements caused by civil strife could precipitate a malaria epidemic elsewhere.

Objective

To reduce morbidity and mortality arising from malaria epidemics to below 5% of the average figures.

Target

Detect malaria epidemics within one month of occurrence and institute measures to control the epidemic within one month.

Activities for 2007 Malaria Action Plan

Activities for the 2007 National Action Plan are summarized in Table 13.

Table 13. Summary of 2007 Emergency Preparedness Action Plan

Activity	Target	Partner	Budget (US$)				
			ZMK				
			1	2	3	4	
1. Procure logistics/ stocks (ITNs, re-treatment kits, Spray pumps, insecticide sachets) for emergencies, at central level and selected sites.	Procure 2000 ITNs, 1500 RDTs, 300 Hudson pumps & 2000 sachets of insecticide	WHO/UNICEF	X	X	X	X	215,500
2. Conduct supportive supervision and carry out training in epidemic preparedness & response; revise, print, and disseminate epidemic preparedness guidelines	2 x 3 day training of district staff; guidelines review meeting; print 1000 copies of guidelines.	WHO/UNICEF		X	X	X	20,000
3.Support collaborative meetings to strengthen in-country/regional partners involved in disaster and emergency response (Epidemic Preparedness Working Group)	Six Working Group meetings held. SARCOF/MALOF attended	WHO/UNICEF			X	X	10,000
4. Strengthening the early warning systems for malaria epidemics	TA	WHO/UNICEF		X	X		15,000

Annex 2. Malaria and HIV/AIDS Coordination

Background

Zambia has a unique and tragic geography to be on the northern edge of countries most affected by the HIV pandemic, and on the southern edge of countries most affected by malaria. While we do not have precise estimates of the prevalence of coinfections one would assume that it is high relative to other countries. At the same time, Zambia is fortunate to have received significant funding for both malaria and HIV interventions. Biological interactions between malaria and HIV are increasingly well known, including increased risk of severe disease and of mother-to-child transmission. Less documented are the possible programmatic synergies between the two programmes. With the intense efforts currently focused on the two diseases, Zambia is in a unique position to show the world how synergies can be found and joint programming accomplished.

Potential for coordination and joint programming includes three primary areas:

Diagnosis and treatment

- Coordination of laboratory support, including tuberculosis.
- Logistics and pharmacovigilance of ARVs and malaria drugs
- Support training for differential diagnosis of malaria and other opportunistic infections in people living with HIV/AIDS.

Prevention

- Inclusion of malaria in pregnancy interventions into the PMTCT packet.
- Inclusion of malaria in advocacy and IEC for adolescent reproductive health and life skills programmes.
- Home-based care
- Support to the Zambia Malaria Foundation for coordination of ITN delivery through organizations delivering home-based care services.
- Guideline development and dissemination for febrile disease recognition and treatment within the home-based care programmes.

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Partner Action Planning Meeting 2007 held at Mulungushi International Conference Centre, 5th – 8th February, 2007

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