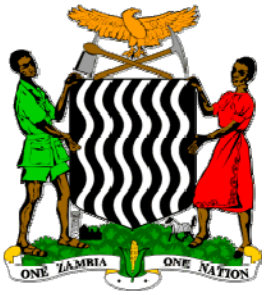

Ministry of Health

A 5-Year Strategic Plan

A Road Map for Impact on Malaria in Zambia

2006-2010

Rapid Scale-Up of Malaria Control Interventions for Impact in Zambia

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Foreword

Zambia faces a promising future with regard to malaria control and the reduction of the ill-health and death caused by malaria. The Government of the Republic of Zambia, through my Ministry has tirelessly worked on developing a Strategic Framework that is consistent with our National Vision of moving towards attainment of the Millennium Development Goals (MDGs) and National Health Priorities. Indeed, malaria control still remains one of the major public health problems and has thus been prioritized in the National Health Strategic Framework and the Millennium Development Goals.

The National Malaria Strategic Plan for 2006-2010 represents a bold, evidenced 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. Furthermore, malaria effects have been significantly negatively impacted on demographic and socio-economic groups.

In general, the health sector has faced severe resource constraints and other challenges. The problems of diseases of public health importance and the current human resource crisis have in no doubt contributed to a decline in the provision of health services. The insufficient funding for delivery of Primary Health Care Interventions has provided a challenge in realizing our goal of provision of health services as close to the household as possible. My Ministry in partnership with Cooperating partners has taken up these challenges and has ensured that effective resource mobilization schemes are put into place, a deliberate plan to address the human resource crisis is developed and that an enabling policy environment is provided for effective service delivery. This has been necessitated by the existing high political commitment that is prevailing in our country.

In the field of malaria, our country has demonstrated leadership in addressing malaria during the Strategic Plan, 2000 - 2005. It is during this period that we changed our national drug policy in response to clear evidence of wide-spread parasite drug resistance. There is a substantial experience base on the use of Insecticide Treated Nets and Indoor Residual Spraying. Furthermore, we have a strong implementing partnership with the Reproductive

Health and the Child Health Departments. Additionally, the involvement of other line Ministries towards the Multisectoral response towards malaria control can be clearly seen. The national RBM Partnership, comprising both global and national agencies - Multilateral and Bilateral Partners, Private Sector and NGOs, including the Roll Back Malaria Partnership, is both strategic and promising in terms of service delivery and performance. Resource mobilisation has been relatively successful resulting in significant increases for the first time in funding for malaria control. The resource mobilisation has been made possible by the Roll Back Malaria partnership, MACEPA, WHO, Ministry of Health the Global Fund and the World Bank. The high technical competence through the National Malaria Control Centre and other specialised departments gives me confidence in the stewardship role of government for malaria control.

Zambia's commitment towards changing the lives of the people for the better through health and development outcomes and impact has extensively received a major boost from its partners. Indeed, the my government 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

I strongly believe that the Vision of moving towards A Malaria-Free Zambia can be realised by focusing of Scaling Up for Impact proven effective malaria control interventions, using the platform of strong partnerships and community ownership. In this regard, the goals of the 2006-2010 National Malaria Strategic Plan will be realised leading to a reversal in the current trends and positive economic growth.

It is my conviction that given this Strategic Plan is committed to the improvement of health and towards rolling back and maintains the gains in malaria. Our country has an opportunity to dramatically change the course of the history of malaria in the country, and the time is now.

I wish to take this opportunity to thank all the Cooperating Partners for their technical and financial contribution, staff of the Ministry who have dedicated their undivided time, the technical stewardship of the National Malaria Control Center to ensure the high quality of this document.

I wish to assure the public that the Government is determined to bring general improvements in services and ultimately improve their health status of the people. Together, let Us Roll Back Malaria in Zambia!

Hon. Sylvia Masebo, *MP*
Minister of Health

The National Plan has been developed through a highly consultative process with key financing and technical partners, and the broad array of country implementation partners, and most importantly with the district health teams. Although the plan is bold, I strongly believe that it is highly feasible to implement it. The plan provides a roadmap for Scaling Up for Impact and its Success is contingent on the national commitment to addressing malaria and the unanimity in the RBM Partnership to rally around the consensus plan and its objective and approaches.

Let me urge us all to take personal responsibility in tackling the problem of malaria in this country and moving towards realizing the Goal of a Malaria Free Future, for all.

Dr. Simon K. Miti
Permanent Secretary
MINISTRY OF HEALTH

Acronyms

ACT	Artemisinin Combination Therapy
ANC	Antenatal Care
BCC	Behaviour Change Communication
BHCP	Basic Health Care Package
CBoH	Central Board of Health
CCM	Country Coordinating Mechanism
CHW	Community Health Workers
c-IMCI	Community-Integrated Management of Childhood Illnesses
DDT	Dichloro-Diphenyl-Trichlorethane
DHB	District Health Board
DHMT	District Health Management Team
DOT	Directly Observed Therapy
EPI	Expanded Programme on Immunisation
FAMS	Financial, Administrative and Management Systems
FANC	Focused Antenatal Care
FBO	Faith Based Organisation
GDP	Gross Domestic Product
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria
HBC	Home Based Care
IEC	Information, Education, and Communication
IPT	Intermittent Presumptive Treatment
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
IVM	Integrated Vector Management

LLIN	Long Lasting Insecticidal Net
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MiP	Malaria in Pregnancy
MIS	Malaria Information Subsystem
MoH	Ministry of Health
NDP	National Development Plan
NGO	Non-Governmental Organisation
NHC	Neighbourhood Health Committee
NHSP	National Health Strategic Plan
NMCC	National Malaria Control Centre
NMCP	National Malaria Control Programme
NMSP	National Malaria Strategic Plan
PHO	Provincial Health Office
PMTCT	Prevention of Mother to Child Transmission
RBM	Roll Back Malaria
RDT	Rapid Diagnostic Test
SADC	Southern Africa Development Community
SAG	Strategic Advisory Group
SP	Sulfadoxine-Pyreimethamine (Fansidar)
SWOT	Strengths, Weaknesses, Opportunities, and Threats
WHO	World Health Organisation
WHOPES	World Health Organisation Pesticide Evaluation System

Executive Summary

Introduction

While malaria remains a major public health and development challenge in Zambia, we now have a unique opportunity to scale up malaria-related interventions, strengthen systems, and make a major effort to *Roll Back Malaria* in Zambia. Malaria currently accounts for nearly four million clinically diagnosed cases per year, 36% of hospitalisations and outpatient department visits, and from one previous study at University Teaching Hospital, up to 20% of maternal mortality. In addition to the direct health impact of malaria, there is also a severe social and economic burden on our communities and country as a whole, but especially on the poorest among us, and those vulnerable individuals and households who are also trying to cope with the HIV/AIDS pandemic. Thus malaria control is addressed, not as a separate, vertical, disease-specific intervention but as part of a health systems strengthening effort to provide holistic services in all facets of care, and as part of a larger community-development effort.

The Zambia Government is determined to accelerate and intensify efforts on malaria control during the next five-year planning cycle. The National Malaria Strategic Plan (NMSP) was developed by the national Roll Back Malaria (RBM) partnership with the Ministry of Health (MoH) to prepare policies, operations, and partnership coordination to enable national scale-up of key preventive and curative interventions.

This malaria strategic plan addresses national health and development priorities, including the National Development Plan (NDP), the United Nations Millennium Development Goals (MDGs) and the National Health Strategic Plan (NHSP). The malaria control strategy contained herein includes demonstrable performance results, including malaria-specific morbidity, mortality, and overall “all-cause mortality” referenced by these other plans.

The strategic plan provides a monitoring and evaluation framework, ensuring that Zambia deploys an evidence-based and cost-effective package of interventions that are appropriately evaluated and documented. Finally, the strategic plan includes a business plan component to enable efficient collaboration among all the partners in the public sector, the private and commercial sector, and civil society.

The Vision

“A Malaria-Free Zambia”

The Government 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. Malaria causes untold suffering to a large proportion of the population each year and enormous economic drain to the health sector.

The Goals

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

The National Health Planning Process

The Planning process has adopted both a top down and bottom up approach, with the bottom up aspect taking on greater significance in the process. This has included district based consultative meetings with the district health management teams (DHMTs) and their key partners in fighting malaria. The district consultations have happened simultaneously with the provincial ones. At the national level there have been various consultative meetings with implementing partners as well as with donor agencies that are engaged in the public health system.

There have also been technical consultations within the Central Board of Health (CBoH) and the Ministry of Health (MoH). Lastly, there have been policy consultations with the Ministry of Health senior management, the Minister of Health, and the Chair of the Ministerial Committee on Malaria. The strategic plan has been subjected to a consensus meeting of all stakeholders for its final adoption.

Rapid National Scale-Up for Impact

Achieving immediate reduction of malaria mortality and morbidity will rapidly improve health status, lower health care costs, as well as have other social and economic impacts, such as increasing productivity and educational attendance, and minimizing national and household expenditures on treatment to restore good health, while generally leading to the reduction of the burden of malaria on an under-resourced and over-stretched health care system.

The Strategic Plan is organized around a balanced package of preventive services to reduce disease burden and curative services to care for the sick, addressing the stated priority of rapid scale up of prevention interventions to decrease infection burden and to rapidly decrease costs of curative care in terms of drug costs, health facility operations, and household expenditures. In addition, key cross-strategies are proposed to assure that programme operations and management, and programme evaluation and documentation are fully operational.

Focus on Prevention During Rapid Scale-Up

Malaria interventions do not only lie in treatment approaches or clinical interventions or chemotherapy, they also lie extensively in prevention. Prevention interventions are recognised to be highly cost effective due to the lower technological and skills requirements in administering preventive interventions.

There are a set of core interventions and cross-cutting interventions that form the framework of the Strategic Plan as outlined below.

The Core Interventions and Target Objectives

Reducing Disease Burden and Mortality: Prevention

The program packages for strengthening child and maternal health focus on providing malaria treatment and prevention services as close to the client as possible. All available routes will be used to deliver these interventions, including entry-level facilities (health centres and health posts), community outreach services using front-line health workers and volunteers, NGOs, private-sector providers and commercial outlets, as well as district and regional health facilities and hospitals.

Insecticide Treated Mosquito Nets

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

Indoor Residual Spraying of Households

Objective: In 15 targeted districts, 85% of people living in households eligible for Indoor Residual Spraying, will have their homes sprayed annually by December 2008.

Prevention of Malaria During Pregnancy

Objective: At least 80% of pregnant women access the package of interventions to reduce the burden of malaria in pregnancy by December 2008. The package of interventions will include a full three courses of IPT, an ITN, and anemia reduction.

Reducing Disease Burden and Mortality: Caring for the Sick

The treatment of complicated and uncomplicated malaria will be based on the national treatment policy and use of a new first-line drug, Artemisinin combination therapy (ACT). Furthermore, extensive use and change in practitioner practice is envisaged through upgrading microscopy use and rapid diagnostic test kits for improved diagnosis and rationalisation of drug use. This will be part of the community programme designed to ensure early and prompt access to treatment to avoid preventable deaths and other complicated morbidity due to malaria.

Accurate Diagnosis

Objective: At least 80% of suspected malaria cases are correctly diagnosed by December 2008.

Prompt and Effective Treatment of Malaria

Objective: At least 80% of malaria patients are receiving prompt and effective treatment according to the current drug policy within 24 hours of onset of symptoms by December 2008.

Effective Programme Management

The commitment to rapidly scale up malaria programme coverage and operations as defined in the National Malaria Strategic Plan will require a growth and strengthening of the capacity of programme management systems at all levels of the health system. The role of the National Malaria Control Centre (NMCC) as the planning and policy-setting focal point will require support and, in particular, authority, and adequate latitude to address key programme components such as human resources, procurement, and financial management. The Zambia RBM Partnership has great capacity. The NMCC will to continue to play a strong and supportive role in partnership mobilization for programme scale-up is vital.

Empowering Individuals and Communities

The rapid scale-up of malaria control in Zambia will only prove successful if communities and individuals have confidence in and accept the prevention and treatment measures being implemented. Sustainability of these programs can be achieved through community empowerment.

Commitment to Performance Monitoring and Impact Evaluation

The National Malaria Strategic Plan commits the nation to a comprehensive assessment of the malaria programme's performance and health and economic impacts. This will require that the basic health information systems are strengthened and that new capacity is developed for the collection, analysis, and timely dissemination of coverage and impact data, as well as for developing new knowledge through operations research.

Section One: Introduction

Malaria poses a major challenge to Zambia in terms of the catastrophic consequences arising out of ill health and death. Data collected in 2004 shows that as much as 36% of hospitalisations and outpatient visits are attributed to malaria. Vulnerable populations are further challenged by other factors such as socioeconomic status and deprivation as well as gender and age factors. This requires malaria ultimately to be addressed through a strengthened health system providing holistic services in all facets of care.

The Zambia Government is determined to both accelerate and intensify efforts on malaria control during the next five-year planning cycle. The National Malaria Strategic Plan (NMSP), was developed by the national Roll Back Malaria (RBM) partnership with the Ministry of Health (MoH), to prepare policies, operations, and partnership coordination to prepare for national scale-up of programme coverage.

The strategic plan will meet national health- and development-priorities. The priorities are founded on the necessity to address diseases and public health concerns such as malaria within the context of resources necessary for undertaking such an effort. It is further noted that the issue of malaria is among the critical public health concerns that form part of the performance targets within the millennium development goals (MDGs). It is, therefore, incumbent and of major consideration to the government that malaria is successfully controlled and managed with clearly demonstrable performance results. The plan will contribute directly to the achievement of the National Health Strategic Plan (NHSP) for 2010 by significantly reducing malaria-specific morbidity and mortality and overall-cause mortality. The plan will also contribute to the achievement of the Zambia National Development Plan (NDP) and the MDGs.

The strategic plan will further provide a framework for programme effectiveness ensuring that malaria control in Zambia deploys an evidence-based package of cost-effective interventions and implementation methods that have been proven to be effective. Finally, the strategic plan will have a business plan component that will ensure that coordination of resources for implementation is maximized.

1.1 The Vision

"A Malaria-Free Zambia"

The Government 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. Malaria causes untold suffering to a large proportion of the population each year and enormous economic drain to the health sector.

Malaria is the most significant health problem in Zambia accounting for, by far, the greatest number of pediatric outpatient consultations and hospital admissions. The government has identified the burden that malaria places on the health status of the population and has classified malaria as public health problem. In this vein, malaria control has been prioritized in the Basic Health Package and in the NHSP. Malaria is completely preventable and curable, yet it currently contributes to 36% of the overall disease burden, particularly in pregnant women and children under five. Sustainable, evidence-based efforts are required to control the malaria disease burden and provide a basis for better health outcomes in the long term.

1.2 The Goals

1. As a result of implementation of this plan, there will be a reduction of malaria incidence by 75% and deaths due to malaria will be significantly reduced by the end of 2010.

2. 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.

3. Malaria control will not only improve the main health prognostic indicators but also provide economic payoffs at the household and national levels.

1.3 The Commitment to Rapid National Scale-Up for Impact

Zambia is poised to make dramatic progress in reducing the health and economic burden attributable to malaria. There is a new and highly effective drug policy with the deployment of a more effective drug, the roll out of a package of interventions to reduce the burden of malaria in pregnancy, and a scale up of transmission reduction using insecticide treated mosquito nets (ITNs) and an expanded and targeted application of indoor residual spraying (IRS).

The intensive scale up of coverage of personal protection interventions (ITNs and IRS) will have rapid and significant impact on malaria illness, deaths, and health

care costs. Coverage in the range of 80% of vulnerable households will result in greater than 50% reduction in malaria illnesses and drug and health care costs.

The progress to date in malaria programming in Zambia has built the confidence of many donors to commit to supporting malaria programme scale up. The Global Fund for AIDS, Tuberculosis, and Malaria (GFATM), several multi-lateral and bilateral partners, and, most recently, the World Bank Malaria Booster and the Bill & Melinda Gates Foundation have agreed to partner with the National Malaria Control Centre (NMCC) and the Zambia RBM Partnership to embark on the proposed rapid programme scale-up.

Section Two: Background

2.1 Global Context

Malaria is the leading killer of children in Africa, accounting for approximately 20% of all-cause mortality in children under the age of five. Africa's malaria burden is worsening, and many factors, including, expanding drug resistance, faltering health services, and the growing impact of HIV/AIDS on health services, contribute to malaria's growing toll on the continent's health and economic potential.

Malaria strains health systems, particularly in Africa where it accounts for between 30% and 50% of hospital admissions and up to 50% of outpatient visits in high-transmission areas. Malaria costs Africa more than US$12 billion annually. It has slowed economic growth in African countries by 1.3% per year, the compounded effects of which are a gross domestic product (GDP) level up to 32% lower than it would have been if malaria had been eliminated in 1960.

Key Malaria Control Goals and Targets

RBM Partnership

- To halve malaria-associated mortality by 2010 and again by 2015

Millennium Development Goals

Goal 2: Achieving universal primary education

- Malaria is a leading source of illnesses and absenteeism in school age children and teachers. It adversely affects education by impeding school enrolment, attendance, cognition, and learning.

Goal 4: Reducing child mortality

- Malaria is a leading cause of child mortality in endemic areas.

Goal 5: Improving maternal health

- Malaria causes anemia in pregnant women and low birth weight.

Goal 6: Combating HIV/AIDS, malaria, and other diseases. Target 8: to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

- Malaria morbidity and mortality are increasing in Africa.

Goal 8: Developing a global partnership for development, including as a target the provision of access to affordable essential drugs

- There is a lack of access to affordable essential drugs for malaria

Abuja Targets by 2005:

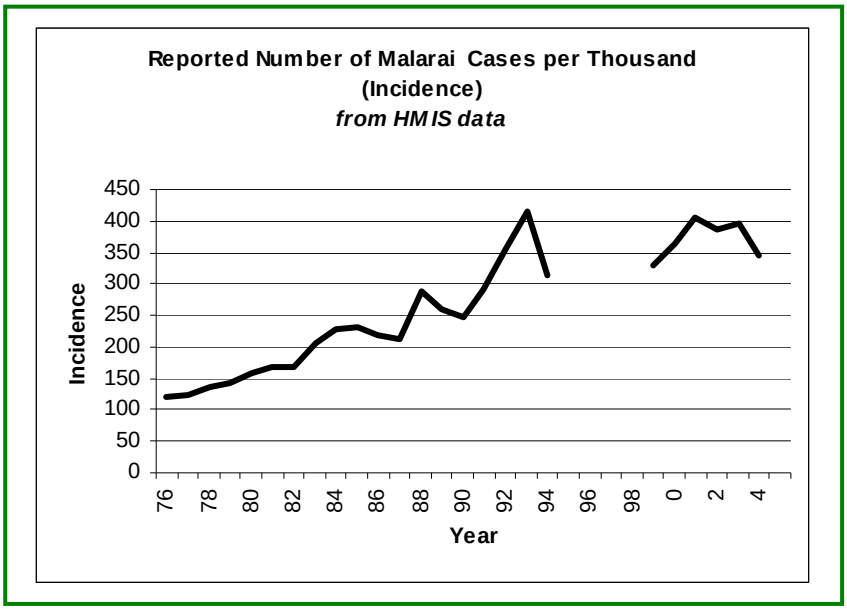
- At least 60% of those suffering from malaria should be able to access and use correct, affordable and appropriate treatment within 24 hours of onset of symptoms.
- At least 60% of those at risk of malaria, particularly pregnant women and children under 5 years of age, should benefit from suitable personal and community protective measures such as ITNs.
- At least 60% of all pregnant women who are at risk of malaria, especially those in their first pregnancies should receive IPT

The global health and malaria community has developed ambitious and overlapping targets with respect to malaria control in Africa. On April 25, 2000, at the Abuja Summit in Nigeria, the RBM Partnership and African health ministers set

targets of exceeding 60% coverage for these interventions by 2005: recent surveys indicate that current national coverage levels in Africa for each of the Abuja targets range from 5% to 40%.

The theme of the 2006-2010 Zambia National Health Strategic Plan (NHSP) is "Moving Towards the Millennium Development Goals (MDGs)." Malaria features prominently in the MDGs and these internationally accepted goals build upon the RBM Partnership Goals and the Abuja Targets. The MDGs were established to focus international efforts on addressing critical issues related to health, poverty, and equity.

2.2 Burden of Malaria in Zambia: Trends and Current Status



Malaria is a major public health problem in Zambia, accounting for 36% (HMIS, 2004) of all outpatient attendances and 48% of cases among children under five years of age.

The National Malaria Control Centre (NMCC) estimates that malaria is responsible for nearly 4.3 million clinical cases and an estimated 50,000 deaths per year, including up to 20% of maternal mortality. Malaria's economic impact in Zambia has not yet been quantified, but is likely substantial, with regional estimates suggesting a deficit of 1.5% GDP growth annually.

Malaria incidence rates in Zambia tripled over the last three decades, from 121/1000 in 1976 to 428/1000 in 2003. Many factors have led to this increase, including the spread of drug resistance, reduced vector control, decreased access to health care, HIV, and poverty.

Malaria programme coverage has increased substantially across the country from 2000 to 2005. However, current coverage levels remain considerably under the targeted 60% levels established in the previous plan and far below the levels (>60% coverage) at which major impact of the interventions on malaria burden would be expected.

Year	Reported under-5 Deaths
1999	4820
2000	5157
2001	5498
2002	4717
2003	4653
2004	3654

In 2004, total malaria incidence dropped to 383/1000 and the total number of reported under-five deaths also dropped to its lowest level in six years. It is too early to claim success, but by all process indicators, and these beginning changes in the impact indicators, Zambia is moving in the right direction.

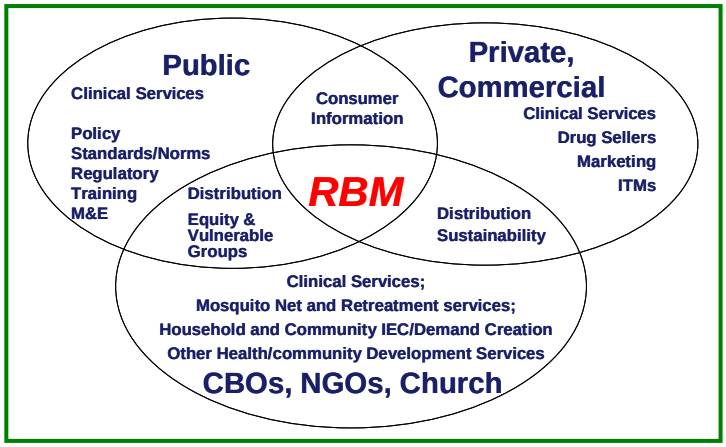
2.3 Accomplishments Under the 2000-2005 Strategic Plan

As a nation, Zambia has made great strides in the past five years towards developing the policy environment and infrastructure capacity required to accelerate malaria control efforts nationally. From the highest ranks of government, there is firm commitment to stop malaria in every community and in every home. The ministerial and civil society sectors are working in full partnership to identify and address barriers to rapid national scale-up including logistics, supply-chain management, and the shortage of health care workers and supporting administrative units. Through effective leadership and donor harmonization, new financial resources are now available specifically for the fight against malaria.

Since the Zambia RBM Partnership inception in 2000, Zambia has made significant progress in the strategic areas of partnerships, policy, funding, and communications, and in the programme areas of specific tactical interventions for drug treatment, malaria in pregnancy and access to Insecticide Treated Nets (ITNs) and Indoor Residual Spraying (IRS). In some of these areas, Zambia is a path-finder and a model for other national malaria control programmes in the Africa region.

During the period of 2000-2005, Zambia established strong control policies including revising its national malaria drug therapy policy to adopt Artemisinin combination therapy (ACT) as the standard of care nationally. Programming has been strongly district based and this has fostered capacity development of district health management teams (DHMTs). ITN distribution has had strong district

specificity, with a wide array of programme strategies being tested, including, social marketing and commercial distribution along with pro-poor distribution for the poorest and most vulnerable populations.



In 2003 Zambia introduced intermittent presumptive treatment (IPT) for pregnant women, to mitigate the above-stated effects of malaria in pregnancy. Currently, IPT consists of three doses of Sulphadoxine-Pyremethamine (SP) to be taken one month apart in the second and third trimesters of pregnancy. This is to be taken as a directly observed therapy (DOT) in antenatal clinics.

About 90% of pregnant mothers in Zambia have at least one antenatal visit during their pregnancy. This has led to 65% of women taking a dose of IPT during a single pregnancy. Given this scenario, about 25% of the pregnant women who attend ANC for the first time do not complete the three doses. The key challenge is that pregnant women do not attend ANC as per recommended practice. The recommendation in the malaria treatment policy is that each pregnant woman takes all three doses of IPT. The current target is to have at least 90% of women taking all the three doses of IPT.

The years 2000 to 2005 saw an enormous rise in finances, malaria commodities, and technical support for the NMCC, through many partners. Zambia has been awarded a total of $82.769M over five years in the first and fourth rounds of the GFATM malaria support

Organisationally, malaria control has benefited from the creation of a National Taskforce on Malaria Control reporting to the Vice President. The NMCC has developed strong working groups to address key malaria interventions and programme implementation areas.

Over the past five years, the Zambia RBM Partnership has established strong partnerships at all levels of the health care system. Active contributors to malaria control in Zambia include both public- and private-sector parties.

In Zambia, important lessons have been learned that support scale up:

- The prioritisation of malaria control and the declaration of malaria as a public health problem within the NHSP led to increased government and cooperating partner commitment to malaria control. In this regard, the government has created a policy environment conducive for implementation.
- The inception of the RBM partnership in Zambia and the development of national and district action plans has provided a platform for effective service delivery. The RBM inception process led to the mobilisation of partners and resources for increased coverage for malaria-control interventions.
- The mobilisation of high-level political will for malaria control has strengthened the resolve of programmes and donors to address malaria control.
- Zambia's decentralised health systems form a highly supportive implementation environment for malaria control.
- The progressive increase in HIV/AIDS prevalence has mandated the need for common planning and utilisation of resources.

Zambia has developed a strong programming base during the previous five years. The malaria policy environment has been strengthened by the adoption of a new malaria drug policy; increased experience in the distribution of ITNs through alternative distribution and utilisation models; and the development of excellent partnerships with key implementation partners, notably, antenatal service, child health and immunization programmes, and civil society outreach and implementation programmes.

2.4 Review of Malaria Programme Performance in Zambia: Summarised Status of Strengthens, Weaknesses, Opportunities, and Threats

Between 2000 and 2005, there have been a number of reviews that have taken place, both to measure progress as well as to facilitate the direction in which the programme is proceeding.

Some key issues have been raised in terms of the progress to date. These include the following:

Adoption of the Malaria Treatment Policy

The change and adoption of the first-line treatment regimen has been through the revision of the malaria treatment policy.

Development and Implementation of the Malaria Information Subsystem

A key aspect of implementing the various interventions is the need to produce and document, on a timely basis, the relevant data and information for capturing malaria outcomes and service provision. The malaria information subsystem (MIS) has since been devised and is now being implemented.

Human Resource Recruitment and Capacity Development Training

In spite of the human resource crisis, there has been progress made with improving the malaria programme management. Laboratory technicians and district malaria coordinators, who assist in quality control and performance evaluation have been trained and/or recruited.

Increased Resource Mobilisation

There has been a significant increase in the available resources for malaria. The increase in the resource base has been through successful resource-mobilisation efforts that have been implemented over the last three years.

Increased distribution of ITNs

Use of ITNs has increased from about 10% to about 40% in some areas. This has provided a firm base for planned scale-up efforts.

Strengthening of Malaria Public-Private Partnerships

The implementation and research components of the malaria control programme have benefited from the strengthening of partners both in the public and private sectors and both domestically and internationally. NMCC has formed alliances in the distribution of ITNs and is planning on additional partnerships in the research and IRS areas.

Political Advocacy Awareness Through the Ministerial Committee

There has been a strengthening of the commitment to political advocacy and support for malaria. This has been evidenced through the tax exemption of ITNs as well as the formation of a Ministerial Committee for Malaria which monitors and

provides support towards commitments and implementation of the malaria control programme in the country.

It is against this background that the table below is used to present a summarised strengths, weaknesses, opportunities, and threats (SWOT) analysis. The identified key elements of the SWOT and the situational analysis have been addressed in the strategic framework and intervention sections of the Strategic Plan.

Summary Strengths, Weaknesses, Opportunities and Threats

Strengths	Weaknesses
Established National Malaria Control Programme and commitment central to human resource	Lack of knowledge on the interaction of the package of interventions and outcomes
A commitment and political will for advocacy	A weak and constrained health system that may not cope with added pressures of a national programme expansion
An existing information sub-system	Distribution of ITNs based on a cost sharing framework which has inhibited access
A core staff of district coordinators	Procurement system that is in its infancy stage
An increased resource base	
Opportunities	**Threats**
A commitment by international partners and other financing initiatives to funds for malaria programmes	Human resource crisis
Communities that are willing to be key partners in operations and planning for successful outcomes	Gaps in total required resources for meeting scaling up targets
Knowledge on proven interventions for successfully rolling out on a rapid basis	Use of DDT for IRS
A decentralised health structure that is integrated into provincial, district, and community level structures	

2.5 Values and Principles

The way forward in malaria prevention and control is based on sound scientific evidence. The National Health Strategic Plan restates the nation's commitment to a core set of principles and values, several of which are critical to the success of malaria control efforts in Zambia. The National Malaria Control Programme

priorities and practices continue to reflect a strong commitment to the following operational principles:

Decentralisation

Decentralisation forms a cardinal approach towards ensuring the participation of people in the planning and delivery of services to communities. The health care system is focused on the strengthening of popular structures, some of which are unique to the sector. For instance, neighbourhood health committees (NHC), which are part of the community-based structures for participation in health care services provision and planning, are part of this process and organisational structure. Others include the community health workers (CHWs), and structures of the traditional leadership which are also cardinal in community mobilisation. The various health centre structures are part of the integrated district team and board that form the consultative bodies for the provincial structures, which ultimately feeds into the national system. Therefore, decentralised and popular participation will be based on the following:

- Local priority setting based on better information about the local environment and context.
- Community health workers and community based organisations.
- Health centre organisations such as the neighbourhood health committees, which exist for all health centres and communities.
- District Health Management Teams (DHMTs) which provide key community representation at the district level including district development planning committees and task forces.
- Provincial participation through the provincial planning development committees and other similar bodies in which the provincial health offices (PHOs) are represented.

Prioritization of Malaria Within the Basic Health Care Package

The basic health care package (BHCP) has been developed to provide a guaranteed set of health services that are accessible to all the population at little or no cost, depending on resource availability and ranking in terms of the burden of disease and mortality causes. Malaria is a priority disease area within the BHCP as the package includes proven, cost-effective interventions that address those diseases and conditions that cause the highest morbidity and mortality.

Strengthening of the Health System

The cost-effective delivery of the BHCP is dependent on planning, procurement, logistics, information systems, financial management, monitoring, evaluation, and other support services. In addition, reproductive health, child health, and laboratory services are significantly impacted by the performance of malaria control programmes. Therefore, using avenues such as post-natal and antenatal programmes provides an entry point into programmes such as prevention in pregnancy, as well as prevention and prompt treatment of the child and pregnant woman. Recognition that sustainability is only inherent given the successful integrated implementation process underlies the formulation and implementation strategy of the NMSP. Close synergy and collaboration to protect Zambia's vulnerable populations shall include strengthening of the following:

- Reproductive and maternal health
- Child health
- Laboratory services. Among key disease control programmes for which strengthened diagnostic capacities will be available, apart from child health and reproductive and maternal health, are tuberculosis and HIV/AIDS.
- Procurement and supply-chain management

Equity and Increased Access to Services

No person, regardless of socio-economic background, will, or should be, restricted for reasons of physical barriers, gender, age, infirmity, culture, traditions, politics, or any other factor, from accessing malaria preventative and curative services. Prioritization in programming will be based on protecting those communities that bear the highest burden and/or are at the greatest risk of malaria illness and death. Given the poverty levels in the country, which range between 55% and 70% between the urban and rural areas, and an average per capita income of US$280, health care services must be provided at no cost.

Partner Harmonization, Coordination, and Accountability:

Multi-sectoral collaborations and a broad array of partnerships for public health will be recognised and embraced. Partnerships will be based on performance-based accountability and national planning processes that are broadly inclusive. Through the strategic plan and programme management, the MoH, through the NMCC, will provide key stewardship functions as well as strategic planning process

coordination and ownership. Others functions, such as monitoring and evaluation and reporting, shall be used in achieving accountability and transparency of resource use as well as proving necessary assessment of progress and variance levels.

2.6 The National Health Planning Process

Purpose of the National Malaria Control Plan (2006-2010)

For the National Malaria Strategic Plan (NMSP) 2006–2010, distinction between strategic issues and implementation issues is fundamental to the planning process. Strategic issues are understood to be broader and longer term conditions, problems, or challenges that will impact the ability of the Zambia RBM partners and programme implementers to achieve the stated goals and objectives and, ultimately, to impact on disease control and prevention targets. Implementation issues are understood to be the programme strategies by which the strategic plan is achieved.

The composite of three documents (strategic plans, business plans, and annual work plans) forms the NMSP. The over-arching Strategic Plan is intended for planners and financing partners and links with the NHSP, both in format and objectives. In particular, the Strategic Plan defines the programme policies and targets and how the programme will be organized, managed, and financed.

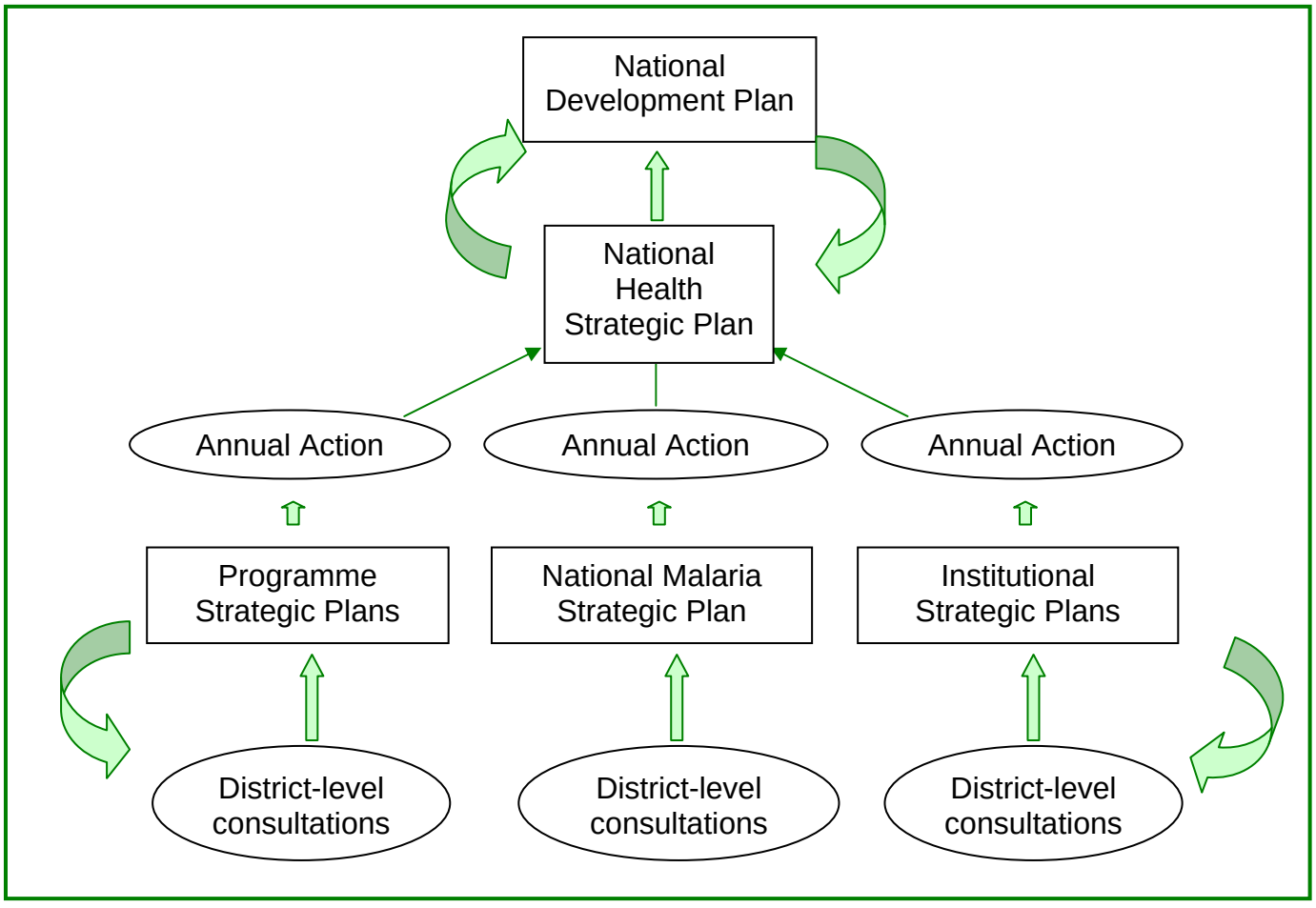
The implementation planning components (business plans and annual work plans) are focused on how the work will be conducted and the role of partners, both as implementers and financers of work. In particular, these plans are designed to support provincial and district teams in developing costed malaria-control plans.

The National Development Plan (NDP) and the NHSP will run concurrently within this time frame. The NDP provides the investment and developmental policy framework of the government for the next five years. The NHSP for 2006–2010 recognises malaria as the leading cause of mortality and one of the leading causes of morbidity, leading to productivity and economic losses as well as contributing to the cost of managing the health system. The NHSP also recognises malaria as a condition that can be managed and controlled to lower the financial and human cost to the population and economy as a whole.

The development and implementation of national plans is based on a consultative process to assure ownership and participatory autonomy through interaction of the

popular and traditional community and district level structures. To this extent, and in recognition of the decentralised process both in the health sector and the government, the decentralisation policy is aimed at ensuring autonomy at the local authority level. The district management teams, incorporating NHCs as well as other stakeholders and district and provincial structures, are all included in the development of the strategic framework and the strategic plan incorporates issues demonstrating a high degree of consensus in terms of formulation and subsequent implementation.

The National Planning Process



Section Three: Strategic Framework

The great progress that has occurred nationally in developing the technical, administrative, and financing capacity for malaria control has strengthened the national commitment to address malaria with intensity and focus commensurate with the enormous burden that it continues to place on the health and economy of the nation.

Several key strategies have been ratified by the RBM Partnership and the government in developing the 2006-2010 National Malaria Strategic Plan. These strategies are consistent with the Global RBM Strategy for Sustainable Program Scale-Up. Further, these perspectives and approaches clearly distinguish the current plan from the preparatory activities during the 2000-2005 period.

3.1 Rapid National Scale Up for Impact

Epidemiological studies from a range of malaria-transmission settings in Africa indicate that coverage of the core malaria control interventions in the range of 70% to80% of the at-risk communities and populations is required to achieve dramatic reductions in malaria mortality and morbidity and reversal of the economic burden that malaria places on individuals, communities, and health services. The RBM partnership has determined that scaling the package of malaria control interventions, as defined in the strategic plan, to 80% coverage in the first three years of the next five-year plan is both feasible and required to bring malaria under control.

Achieving immediate reduction of malaria mortality and morbidity will rapidly improve health status, lower health care costs, and have other social and economic impacts such as increasing productivity and educational attendance and minimizing national and households expenditures on treatment to restore good health, while generally leading to the reduction of the burden of malaria on an under-resourced and over-stretched health care system.

3.2 Integrated Package of Malaria Interventions

Malaria control scale up should be an integrated package of prevention and curative interventions that is epidemiologically tailored for the local setting. The balance between investments in ITNs and IRS is particularly important in Zambia

considering the highly urbanized population and the logistical challenges of programming to high coverage in sparsely populated but high-risk rural areas. The areas of identified intervention strategies are the following:

- Reduction of disease burden
- Care of the sick
- Programme management and system support functions

3.3 Focus on Prevention During Rapid Scale Up

Malaria interventions do not only lie in treatment approaches or clinical interventions or chemotherapy, they also lie extensively in prevention. Prevention interventions are recognised to be highly cost effective due to the lower technological and skills requirements in administering preventive interventions. Furthermore, the application of interventions requires support by monitoring, evaluation, and the use of cost-effectiveness analysis in deriving an appropriate mix or package of interventions yielding optimal results in terms of cure or continued well being.

While the rapid scale up of malaria control will be an integrated package of both prevention and curative interventions, this emphasis on prevention in the initial three years of the five-year plan will result in a dramatic decrease in the incidence of new infections. The economic burden that Artemisinin combination therapy (ACT) places on the financing of malaria scale-up can be markedly reduced by rapid scale up of ITN and IRS coverage, particularly in high-transmission regions.

3.4 Commitment to Performance Monitoring and Impact Evaluation

Malaria control efforts must be highly accountable in order to build confidence that malaria control will produce the promised burden reduction and economic benefit. Further, with the infusion of financing for malaria control currently being experienced by Zambia, it is important to develop highly accountable programme management and financial systems to assure national and global supporters of the solid business practices of malaria control. This implies the development of strong performance monitoring and impact-evaluation systems by the MoH and the NMCC.

Section 4: Integrated Package of Malaria Interventions

Malaria control will be incorporated into existing health-service-delivery programs. The program packages for strengthening child and maternal health focus on providing malaria treatment and prevention services as close to the client as possible. All available routes will be used to deliver these interventions, including entry-level facilities (e.g., health centres and health posts), community outreach services using front-line health workers and volunteers, NGOs, private-sector provider and commercial outlets, as well as district and regional health facilities and hospitals.

The Strategic Plan is organized around a balanced package of preventive services, designed to reduce disease burden, and increased curative services to care for the sick, addressing the stated priority of rapid scale up of prevention interventions to decrease infection burden and to rapidly decrease costs of curative care in terms of drug costs, health facility operations, and household expenditures.

4.1 Reducing Disease Burden

4.1.1 Integrated Vector Management

ITNs

Objective

To ensure that at least 80% of people sleep under insecticide treated nets in ITN-eligible areas of every district by December 2008 and maintaining to 2010..

Strategies

- There will be rapid scale up of ITN coverage through a rolling mass-distribution campaign. The campaign will focus on ensuring that each sleeping space in the household is covered by an ITN.
- ITNs and retreatment tabs will be distributed without cost to the households.
- The mass distribution campaigns will focus on those communities that are not eligible for IRS.
- Mass retreatment shall be the adopted to ensure that there is continuation of efficacious utilisation of ITNs.

- Routine ITN distribution shall be undertaken through child clinics and antenatal clinics.
- The Community Based Malaria Prevention and Control Programme (CBMPCP) will develop a demand driven approach to the distribution and availability of ITNs at the community level.

Outputs

- Number of ITNs distributed to households
- Number of nets retreated
- Number of nets replaced

Operational Design

Zambia has previously employed a mix of interventions for ITN delivery mechanisms. These have revolved around targeting various sub-populations defined by socio-economic, demographic, and geographical factors such as children under five, pregnant women, and the poor. Such delivery mechanisms have included commercial sales and subsidized and free ITNs.

In order to rapidly scale up country-wide, the NMCP has refocused its strategic approach towards ensuring that the goal and objectives of increased access and utilisation are met. This will be done through using experience learnt in the past 5 years. In this regard, the minimum package for delivery of ITNs has been determined as follows:

- Mass distribution of ITNs at no cost in rural-hard –to reach districts.
- Antenatal care distributions will continue at a highly subsidised cost.
- Distribution to children under five will continue at a highly subsidised cost through the expanded programme on immunisation (EPI).

Maintenance of coverage will be met through ANC and EPI visits, and all partners involved in implementation and distribution will be required to cost their operational activities.

Pre-treated nets will be used and progressively replaced with the pre-treated long lasting insecticidal nets (LLINs). Non-treated nets will not be used, and all those already within communities will require retreatment. Planning will take into consideration replacement of nets through cover-up campaigns.

Mass retreatment campaigns will be conducted on an annual basis to ensure efficiency and consistency with the recommended insecticides.

Other ITNs Programs aimed at targeting the population:

- Commercial distribution will continue in urban areas.
- School health programmes and health facility bed net distributions will continue.

The NMCP, through the Strategic Plan, will redefine the roles of all players from central, provincial, district, community and health centre levels.

IRS

Objective

At least 85% of people in eligible areas of the target districts will sleep in sprayed structures by December 2008 and to be maintained to 2010.

Strategies

Annual campaigns will be implemented in eligible areas.

Outputs

- Number of households sprayed.
- Quality assurance scheme.
- Environmental safeguards in place.

Operational Design

Coverage of IRS will, during the duration of the Strategic Plan, be targeted primarily at achieving a minimum of 85% of eligible households in 15 of the 72 districts. These districts have been selected using strictly defined criteria that take into account, malaria disease burden, level of urbanisation, population density, housing structure, health facility distribution, capacity to handle IRS effective operations in conformity with national IRS guidelines, and available human resources. Given the success rate and resource mobilisation efforts as well as the effectiveness of the other interventions the decision to broaden coverage of IRS will be considered.

In the course of this rapid expansion of IRS services, the programme will ensure that high standards of supervision monitoring and evaluation, and personal and environmental safeguards are maintained.

Furthermore, quality will be enhanced through mapping and refining the roles at different levels (NMCC, PHOs, and DHMTs) of delivery within a decentralized system. Additionally, the role of the private sector and local government will be progressively increased in delivery of IRS services.

Surveillance on insecticide resistance will form a critical component in IRS for further quality of the intervention. Therefore, it will be strengthened at different levels (PHOs, DHMTs, etc.) through a partnership with research and academic institutions.

DDT will continue to be used for IRS but will be progressively scaled down as the research for alternatives will be intensified in adherence to Stockholm convention. It is expected that suppliers of DDT will be responsible for safe disposal of sachets and related accessories.

IRS will be confined to those areas where capacities have been built and later will be scaled up progressively to additional districts following further capacity building.

Other IVM Interventions

Larviciding

Larviciding will be implemented as a complementary intervention in combination with other IVM activities. The coverage will be set up in urban areas during the dry season when the breeding sites will be discreet and accessible. The time frame for the larviciding programme will be April to early November.

The types of lavicides to be utilised will range from chemical formulations to microbial formulations as recommended by WHOPES.

Environmental Management

Simple environmental modification and manipulation approaches such as canalisation, draining, and land filling will be implemented in urban areas in conjunction will the local authorities as complementary interventions.

Legal and regulatory framework review

Systematic review of the Public Health and Mosquito Extermination Acts is required to evidence based interventions to meet current standards and recommendations.

4.1.2 Prevention during Pregnancy

Intermittent Presumptive Treatment

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 of interventions will include a full three courses of IPT, an ITN, and anemia reduction.

Strategies

- Strengthen the malaria component of focused antenatal care (FANC).
- Support the national roll-out of FANC.

Outputs

- Number of functional FANC points

Operational Design

The focus will be to increase uptake of IPT through a joint commitment to strengthening FANC. The key emphasis will be to increase coverage of FANC, and improve patient and provider compliance.

About 90% of pregnant women in Zambia have at least one antenatal visit during their pregnancy; booking occurs at about 5 ½ months. Initial reports from sentinel districts indicate good uptake of IPT, at least for the first dose, but a drop off for subsequent doses, with fewer women receiving the recommended three doses.

Monitoring and evaluation (M&E) activities will be strengthened in order to capture information on compliance after the first dose. This strategic decision will further seek to improve the quality of care and completion of the IPT course. The implementation will be done according to the malaria in pregnancy (MiP) guidelines.

Efforts to reduce the burden of malaria during pregnancy focus on:

- Improving access to IPT with SP at least three times during the second and third trimester.
- Improving access to use of ITNs by pregnant women
- Reducing anemia through the above methods, along with micronutrients and improved nutrition.

- Improving diagnosis and treatment for pregnant women with clinical malaria.

4.2 Care of the Sick

4.2.1 Diagnosis

Objective

At least 80% of suspected malaria patients are correctly diagnosed by December 2008 and maintained through 2010.

Strategies

- Expand microscopy to all facilities in eligible areas.
- Introduce rapid diagnostic tests (RDTs) to all eligible health facilities without microscopy.
- Increase clinical diagnostic skills through the strengthening of community-integrated management of childhood illnesses (c-IMCI) strategy.

Outputs

- All health facilities are providing diagnosis either through RDTs or microscopy.

Operational Design

Laboratory diagnosis is essential in providing a sound scientific basis for accurate malaria diagnosis and case management. Currently, only 16% of health facilities offer laboratory diagnosis of malaria. Statistics obtained from baseline studies (2001) indicate that only 34% of suspected malaria cases are laboratory diagnosed.

In line with the change in the malaria drug policy, prompt and effective treatment of malaria with efficacious anti-malarials requires that these drugs be used rationally. Irrational use of anti-malarials leads to parasite drug resistance. The current challenge is that increased incidences of HIV and AIDS distort the malaria picture when there is heavy reliance on clinical diagnosis.

The main strategy for malaria diagnosis will be based on laboratory investigations. Laboratory diagnosis using microscopy will be extended progressively to all health facilities while, in the interim, RDTs, will be used for malaria diagnosis where microscopy services are lacking. As microscopy diagnosis is extended, there will be progressively fewer quantities of RDTs needed. At the community level, malaria diagnosis will be based on clinical diagnosis according to c-IMCI guidelines.

4.2.2 Prompt and Effective Case Management

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 and maintained through 2010.

Strategies

- Extend ACT (Coartem®) to the private sector
- Strengthen the malaria component of c-IMCI
- Support the roll-out c-IMCI.
- Support the strengthening of referral systems
- Manage complicated malaria in the tertiary institutions and provide technical support by the tertiary institutions for enhanced referral systems for malaria cases

4.2.2.1 Management of Complicated Malaria

The management of complicated malaria defines the functions and strategic role of the secondary and tertiary levels in the provision of a comprehensive malaria case management strategy that focuses on the reduction of case fatality and strengthens the technical capacity for addressing and managing sickness in malaria.

Strategies

- Provide technical support to rural and urban health centres and to district hospitals to ensure that there exists a workable and effective referral system.
- Identify emergencies and refer them immediately to the next level of care.
- Referral systems in place
- Feedback system in place
- Technical support from the higher levels

Outputs

- Service points providing ACTs according to the malaria treatment policy

Operational Design

An average of 35% of hospital visits and bed occupancy is due to malaria-related infections. The percentage of self, household-based treatment is equally significant for malaria. Estimates for the use of and consultations with traditional healers are also significant. The formal health system, therefore, does not represent the only contact and treatment for malaria in Zambia.

The MoH changed its malaria treatment policy in 2003, with Artemether-Lumafantrine (Coartem®) being introduced as the new first-line drug due to its known effectiveness. There is 100% availability of Coartem® in the formal public-sector but none is available in the private for-profit sector or at the community level. The private sector is currently using Artemisinin monotherapies to treat malaria, due to their low cost as compared to Coartem®.

Studies show that in about 81% of febrile illnesses, there is an attempt to treat for malaria. Seventy-one percent of these febrile illnesses end up in health facilities, due to ineffective treatment in the community. In order to achieve equity of access to effective treatment, the current first-line drug, Artemether-Lumafantrine (Coartem®), will be made available at all levels of health care, including the community level.

Patients usually do not seek treatment early, which leads to poor outcomes of treatment since malaria is an acute illness. An improvement in treatment-seeking behaviour would greatly improve the prognosis of malaria.

Introducing malaria treatment at the community level will require training of community health workers in handling Coartem®. In order to minimize costs due to drug wastage and to increase accuracy of malaria reporting, the community health worker's diagnostic skills shall be improved by IMCI training.

Handling of Artemisinin combination therapy (ACT) by the community health worker shall be done once capacity is available. In those community settings where capacity has not yet been built, Sulphadoxine–pyremethamine shall be used in this transition period.

Coartem® shall be available in the private for-profit sector at a subsidized price. Currently the drug costs $16 in this sector.

Health systems (referrals, human resource availability, etc.) strengthening shall be supported in order to avoid progression to severe malaria and death.

Section 5: Integrated Support Systems

The commitment to rapidly scale up malaria programme coverage and operations as defined in the National Malaria Strategic Plan will require a growth and strengthening of the capacity of programme management systems at all levels of the health system. The role of the NMCC as the planning and policy setting focal point will require support and, in particular, authority and adequate latitude to address key programme components such as human resources, procurement, and financial management. The Zambia RBM Partnership has great strength, and the capacity of the NMCC to continue to play a strong and supportive role in partnership mobilization for programme scale up is vital.

5.1 Effective Programme Management

Objective

Strengthen national, provincial, and district health system capacity to effectively and efficiently plan, implement, and manage malaria control efforts.

5.1.1 Strategies—Organizational Alignment

NMCC strengthened as a service support unit with prescribed responsibilities for overall coordination of the implementation of national malaria control efforts.

Outputs

- NMCC effectively manages consensus on policy and strategy through existing advisory and partner working groups and other fora.
- NMCC has the capacity to efficiently mobilise and manage financial and human resources in support of national programme efforts.
- NMCC ensures Zambia RBM Partners participation in strategic advisory groups (SAG) and country coordinating mechanism (CCM) meetings.

Operational Design

Priority attention will be paid to ensure that current capacity is sustained, expanded, and adapted to address rapid scale up of malaria prevention and control efforts and to achieve a malaria-free Zambia.

5.1.2 Strategies—Programme Planning and Design

Invest in evidence-based programme planning capacity at all levels of the health system.

Outputs

- Strategic, implementation, business, and annual work plans are developed based on sound scientific and operations data.
- District medium-term expenditure frameworks (MTEFs) address rapid scale up of malaria prevention and control.
- All levels of the health system have access to programme performance data and rationale for best practices from which to make sound programme implementation decisions.

Operational Design

The annual malaria control programme planning cycle will include comprehensive consultation at the provincial and district levels to ensure alignment of resources with programme goals and feasibility of overall programme objectives.

5.1.3 Strategies—Human Resource Management

- Ensure that there is a well established planning and forecasting framework for projecting human capacity needs and related costs across all cadres and levels of the health system.
- Provide planning support to districts to manage temporary staffing pools for rapid scale up of malaria control efforts.
- Invest in health workforce training capacity for improved development of supply of health care providers as well as to professionally progress members of the health workforce.

Outputs

- An assessment is completed of human resource requirements for rapid national scale up and maintenance of malaria control programming for all levels of the health system.
- A health workforce forecasting and costing framework is in place that provides timely data for planning and budgeting purposes.

- All levels of the health system have staffing plans inclusive of malaria prevention and control related staffing requirements.

Operational Design

- Utilise increased resource mobilisation to contract non-civil-service staff.
- Advocate for expansion of staff retention and compensation incentives to include key technical and management staff in addition to cadres of health care providers.
- Provide support for capacity development to institutions of higher learning for improved management and planning of human resource.

5.1.4 Strategies—Financial Management

- Provide financial planning support to districts to develop implementation plans within context of available resource envelope and given disease burden.
- Ensure that there is a well established planning and forecasting framework for projecting financial resource and for tracking expenditures across all levels of the health system.
- Provide financial planning and management training capacity for improved management of financial resources and adherence with internationally accepted accounting principles and reporting procedures.

Outputs

- An assessment will be completed of current and required financial flows for rapid national scale up and maintenance of malaria control programming for all levels of the health system.
- A financial forecasting and costing framework will be in place that provides timely data for planning and budgeting purposes given programme priorities.
- All levels of the health system have financial planning and management plans inclusive of malaria prevention and control related requirements.

Operational Design

The financial management system will be synchronised with the financial, administration, and management information subsystem that link the central, provincial, and district levels.

It is anticipated that local contractors will operate within the framework of the Financial, Administrative, and Management System (FAMS) for purposes of standardisation, accountability, timely reporting, and transparency.

5.1.5 Strategies—Procurement and Supply Chain Management

- Develop systems for efficient quantification of malaria specific commodities and procurement cycle requirements to ensure appropriate availability.
- Seek exemption from National Tender Board for subcontracting of specific commodities to ensure availability for rapid scale up phase of NMSP.
- Develop capacity at all levels of the health systems to manage the supply chain for distribution of malaria commodities such as ITNs, IRS equipment and supplies, and RDTs.

Outputs

- Required commodities are on hand for implementation in advance of each malaria season.
- Malaria section of the national procurement plan is in place.
- Contracting mechanisms are in place to support procurement through partners.
- Storage, transport, and inventory management systems are in place at all levels of the health system for malaria commodities.

Operational Design

Rapid national scale up of malaria prevention and control efforts will result in additional stress on the national procurement processes and capacity. The three-year rapid-scale-up phase must be supported by procurement capacity that exceeds current government capacity. Several key partners of the Zambia RBM Partnership have effective procurement capacity that could be used to ensure that commodities are purchased in a cost-efficient manner, abiding by WHO guidelines and specifications.

The focus on prevention interventions will result in large shipments of non-drug commodities that will require transport, storage, and inventory management at all levels of the health system. The ability to efficiently deliver commodities to community delivery points is crucial to effective programme implementation. NMCC will work to identify supply chain management constraints and, in concert with local

government and public and private partners, will develop solutions to constraints in the current system.

5.1.6 Strategies—Coordination and Partnerships

- Develop strategic private-public, multisectoral, and community partnerships for the delivery of high-impact malaria prevention and control efforts at all levels of the health system.
- Strengthen and formalize terms of reference (TORs) for advisory, technical, and implementing fora with a focus on efficiency of communication, consensus building, and performance improvement.

Outputs

- Partnership agreements are in place that detail partner contributions to the NMSP.
- Contractual agreements are in place in support of programme implementation.
- TORs for advisory and technical fora are in place.
- A communication plan for updating donors and partners on progress is in place.

Operational Design

- NMCC will develop partnership agreements that map partner contributions to the NMSP. Contractual arrangements will be developed when government held resources are used to fund an implementing partner to do a scope of work essential to the implementation of the NMSP.
- NMCC shall operate as a subcontractor or fund-holder for operational or implementing partners. It will also operate as a leader and joint owner, giving stewardship to all partners including funding agencies.

5.1.7 Strategies—Financing and Resource Envelope

- A framework for analysing the economics and financing of malaria will be developed and implemented to inform decision-makers and provide models for the analysis of resource effectiveness and efficiency during a process of changing programmatic implementation through scaling up.
- Dissemination at national, regional, and international fora will be undertaken.

Outputs

- Inputs and resource deployment realigned.
- Resource mobilisation and resource allocation improved and aligned to efficiency and effectiveness standards.

Operational Design

In the process of scaling up, there are considerations relating to the efficient and effective use of resources on interventions that require documentation and analysis to determine the impact attributable to the various interventions, as well as the cost to the programme and health system. As the programme implementation proceeds, the assessment of efficiency and cost in relation to the outcome is again an area that needs to be undertaken. These aspects of the programme management will lead to understanding how the technology and financial resources are leveraged and are able to yield optimal results. Similarly, ascertaining how and what resources and resource mix approaches can be implemented and how they have been implemented will further provide insight into the programme management and process.

The costing and financing analyses of the Plan will be developed based on a systematic review of critical programming approaches. The RBM Costing Tool will be used as the baseline tool for the costing. In subsequent years there will be an annual costing exercise that will assess available resources and define the optimal use of resources to achieve stated targets and impact. The key assumptions and costing outputs will be integrated in the monitoring and evaluation system for the program to assure that there is consistent monitoring of how key costing assumptions vary over time.

5.2 Empowering Individuals and Communities

The rapid scale up of malaria control in Zambia will only prove successful if communities accept and use the prevention and treatment measures being implemented. Each require individuals, families, and communities to decide whether or not they believe malaria is a preventable and curable disease and require that individuals, families, and communities take action to protect themselves and their loved ones.

Fostering effective community response through outreach services is necessary. Achieving high coverage of effective interventions requires a well-functioning

"close-to-client" health system that will ensure the delivery of high quality and technically sound services. Private sector channels, NGOs, and community-based organizations including faith-based organizations, play an important role in delivering both prevention and treatment services. This requires local delivery structures (e.g., public and private health centres), well-trained and well-supervised health workers, reliable and efficacious drugs and supplies, and stronger health system management including surveillance and monitoring.

In Zambia, efforts at information dissemination and communication strategies for behaviour change show great promise. There are established communication channels and strategies including television and radio ad placement, posters and print materials for dissemination at the health facilities, and the use of community drama performances to inform and educate, in addition to high profile annual events such as Africa Malaria Day, Child Health Week, and Southern Africa Development Community Malaria Week that bring national visibility to malaria control efforts.

Preliminary assessment has been done regarding the current knowledge, attitudes and perceptions of community members in regards to malaria prevention and control.

5.2.1. Information, Education, and Communication for Behaviour Change

Objective

At least 80% of community members will indicate that they have the knowledge, attitudes, and skills to effectively prevent malaria in their communities and in their homes and to appropriately seek care during suspected malaria illness by December 2008 and maintained through 2010.

Strategies

- Conduct annual evidence-based, national, multi-media/modality information, education, and outreach campaign on malaria prevention and control.
- Conduct annual community-appropriate intervention and treatment-specific communication for behaviour change campaigns preceding and during high-transmission season.
- Institutionalize process of engaging partners in IEC/BCC planning, design, and dissemination.

- Publish timely progress reports for stakeholders that include human interest material in addition to progress reports on the national scale up campaign.

Outputs

- A formal structure is developed to engage partners in planning, design, development, dissemination, and evaluation of effective IEC/BCC plans.
- An annual national multi-media malaria information, education, and outreach campaign is conducted, first in 2006, and maintained thereafter.
- A package of evidence-based intervention-specific malaria information, education, and communication materials is developed for use at the district level.
- A communications plan is implemented that provides quarterly updates and information on the achievements of the National Malaria Strategic Plan that targets stakeholders, political and health-system leaders, donors, and key partners.

Operational Design

- Communities will have timely access to reliable, credible information regarding malaria. This information will be delivered in a manner that is appropriate to the language, literacy, and accepted cultural norms of the community.
- Communication strategies will be based on sound evidence of success in similar settings and, then, based on local assessment, tailored to be most effective.

5.2.2 Mobilizing Community Response

Objective

At least 80% of NHCs (or equivalent structures) at the community level are implementing the malaria control package by December 2008.

Strategies

- Community capacity development in implementing an integrated package for malaria control.
- Development and implementation of the community demand driven approach using the comparative advantage of the existing systems.

Outputs

- Number of NHC coordinating and implementing malaria plans.

Operational Design

Mobilising community response increases not only the chances of success but also the continuity and sustainability of the interventions. Owing to the fact that malaria control is a combined package of preventive and curative interventions, there is a need to provide linkages with the health system through the extension of the neighbourhood health committees and the community health workers. Additionally, the comparative advantages posed by the capacities built using existing networks at community level should be extended. There is a need to strengthen these networks and incorporate health service provision as an integrated package. This calls for using the existing HIV/AIDS home-based care, c-IMCI, and IEC programmes as vehicles for delivery of malaria control interventions. Owing to the fact that a rich mix of implementing agencies using predetermined structures already exist at community level, this strategy will be implemented using the multi-sectoral approach.

5.3 Commitment to Performance Monitoring and Impact Evaluation

The National Malaria Strategic Plan commits the nation to a comprehensive assessment of the malaria programme's performance and health and economic impacts. This will require that the basic health information systems are strengthened and that new capacity is developed for the collection, analysis, and timely dissemination of coverage and impact data, as well as developing new knowledge through operations research.

5.3.1 Objectives—Monitoring and Evaluation

- 80% of districts and sentinel sites will collect, process, analyse, and manage malaria data by 2007 and 100% by 2008.
- 80% compliance by 2007 with documentation whether activities have been implemented as planned to ensure accountability and address problems that have emerged in a timely manner.
- 100% annual feedback to data providers and relevant authorities to improve future planning.
- 100% annual compliance with documentation whether planned strategies have achieved expected outcomes and impacts.

Strategies

- Systems will be strengthened and/or developed to collect, process, analyse, and manage malaria transmission and disease data.
- Programme management capacity assures that all strategic programmes have been implemented as planned to ensure accountability and address problems that have emerged in a timely manner.
- Monitoring and evaluation systems are capable to provide feedback to programme implementers, RBM partners, and relevant authorities to improve programme planning, management, and accountability.
- The NMCC and partners document on a timely basis how the planned strategies and resource allocations have achieved expected outcomes and impacts.

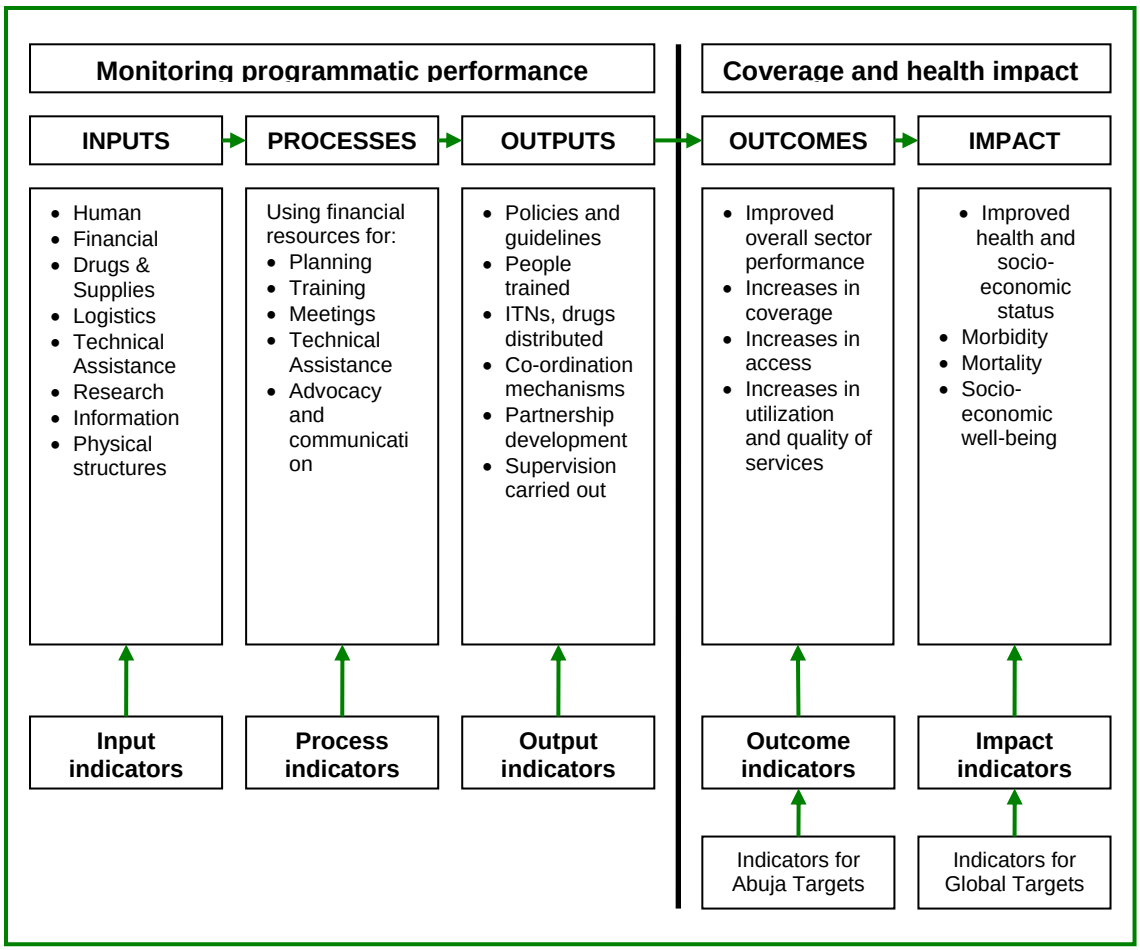
Outputs

- A unified performance monitoring and system in place.
- Impact evaluation system in place.
- Timely information (reports) dissemination and feedback (national, provincial, district and community).

Operational Design

By 2006 the key functions and actions of the Zambia malaria M&E system will be developed and strengthened within the context of general health and disease M&E systems in Zambia, and systems will be in place to assure that challenges and opportunities that exist at national, provincial, and district levels in M&E planning and capacity are addressed promptly to support the national commitment to rapid scale up of malaria programming for impact.

The basic malaria M&E framework with the proposed inputs, outputs, processes, outcomes, and impact measures:



Adopted from the RBM M&E Framework

It is expected that improved monitoring and evaluation within the next five years (2006-2010) will facilitate documentation in future reports of progress made towards the achievement of Zambian targets and the prospects for reaching the overall RBM goal by 2010 and the targets of the United Nations Millennium Development Goals (MDGs) by 2015.

5.3.2 Objective—Research

To develop and strengthen the national capacity for developing an evidence base for programming.

Strategies

- Develop a malaria-specific research agenda.
- Develop a funding stream and contracting mechanism for programme-responsive research.
- Timely dissemination of research findings to stakeholders and integration of information in programming.

Outputs

- Research findings influencing policy formulation and decision making.
- Research findings influencing programming.

Operational Design

Research for operational and policy purposes requires to be an integral part of programme implementation in order to inform and provide an input into the evaluation process of the programmes. As various technologies and interventions are utilised and applied, the outcomes being generated may not be known nor anticipated and it is essential that there are research areas for follow up. The research aspects have been addressed in various ways by the partner institutions such as the Tropical Diseases Research Centre (TDRC) and the University of Zambia, as well as other research institutions or organisations that carry out socio-economic research.

The research framework will evolve to take into account contractual mechanisms for the research work that shall be a basis for informing programmatic and policy decision making processes.

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