

Foreword

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During 1997, I was meeting Heads of State and Senior Public Health professionals – particularly in Africa – as I prepared to stand for the position of Director General. I heard from them about the extent of the burden of malaria – about its effect on the health of hundreds of millions of people, and its impact on their productivity, prosperity and contribution to national development. I knew that low-cost and effective approaches to malaria prevention and treatment were available, and that more were under development. But it was evident that poor people in poor nations were just not benefiting from these opportunities. Malaria is a complex condition. An effective response must be tailored to local realities. It calls for an effective health system, for popular involvement and inter-sectoral action. It demands more financial resources: the level of expenditure in the 1990s was pitifully low. Above all, the different organizations that tackle malaria need to pursue a common strategy in a synchronized manner. All this poses big challenges for national malaria control efforts and the international community.

That is why I proposed a new approach to help affected countries Roll Back Malaria. I suggested that the World Health Organization could play a catalytic role in making this approach successful – helping governments, community groups, scientists, private entities and NGOs (Non-Governmental Organizations) to work more effectively together within countries, especially at local level.

Shortly after I took office in 1998, many Heads of State confirmed that they wanted to be part of a long-term effort to roll back malaria. In response, WHO, UNICEF, UNDP and the World Bank founded the Roll Back Malaria Partnership. Over time, we were joined by many national governments, donor agencies, foundations, research and teaching institutions, NGOs and private entities. As we started out, the partners opted for an unstructured partnership, bound by common purpose, focusing on raising the international profile of malaria, working together effectively in countries, but with minimal reciprocal obligations. This approach proved highly effective in building the political commitment, creating the momentum, and stimulating the innovation needed to reach the present phase of scaling up interventions within countries.

WHO took on a leadership role through combining our public health contributions with support for effective Roll Back Malaria Partnerships at local, national, regional and international levels. One part of this function included a small Secretariat for the Global RBM Partnership at our Geneva Headquarters.

From the start, the partners all appreciated that the Roll Back Malaria Partnership would evolve to reflect the realities within which partners are working, and I welcome this first external evaluation.

The report's main message is that, in the Partnership's first three years, more attention has been paid to rolling back malaria, international expenditure on malaria has doubled, and concerned parties have agreed on the strategies necessary to fulfil the task. I would add, however, that considerable effort has been made by partners to establish common ground for working at country level, to stimulate new institutional arrangements for inter-sectoral action and to build

capacity for absorbing any new resources that become available. The preparation has proved to be particularly relevant as countries respond to the promising opportunity of additional development funds for Roll Back Malaria action – particularly through the *Global Fund to Fight AIDS, Tuberculosis and Malaria*.

Some of the evaluation's recommendations provide partners with useful suggestions on how to move forward at global level. They have now established mechanisms to guide the evolution of the Partnership as it scales up implementation – agreeing the composition and Terms of Reference for a Steering Committee. Founding partners have agreed that WHO continue to serve as Secretariat to the Partnership, with a clear definition of what this entails. As Roll Back Malaria partners develop a clear understanding of how they can work together better, their expectations of the Secretariat will likewise become more precisely defined. The evaluation's analysis will help to improve the accountability of the Partnership and the Secretariat to people and communities at risk of malaria.

The evaluation also analyses ways in which WHO's malaria work can be strengthened. We will continue to bring together programmatic and research expertise in malaria throughout WHO, seeking to link it with the available malaria skills in the international scientific community and partner organizations. Working closely with other partners, we have accelerated our programme to establish four interagency, inter-country teams to provide technical and programme development expertise for Roll Back Malaria action in Africa.

As we move into the second phase of this vital endeavour, Roll Back Malaria partners are increasing their commitment to effective action at local level. UNICEF is giving increased priority to supporting Roll Back Malaria action within country programmes. Donor agencies within OECD governments are increasing their funding for malaria action through a variety of different channels. The US Government's Malaria Action Coalition will provide resources at the regional level in response to the emerging opportunities for effective action within countries.

Indeed, the preparatory work undertaken by Roll Back Malaria partners within countries, as well as at regional and global levels, has offered new opportunities for effective action. I anticipate that the accelerated response by partners will continue, and that we will be able to demonstrate our increasing impact on local and national capacities to roll back malaria.

I would like to thank Professor Feachem, the evaluation team, the hundreds of people that contributed to the process and the Department for International Development of the United Kingdom for providing support to this external evaluation and thus stimulating the further evolution of this vital Partnership.

Gro Harlem Brundtland, MD, MPH

Preface

This Report covers only the period leading up to the close of the External Evaluation on March 31, 2002. Thus, the many substantial and exciting changes which have been set into place since that date will not be reviewed or even mentioned in these pages. Following the presentation of the Team's preliminary findings in Geneva, the partners moved quickly to reorganize the governance and management structures of the Secretariat's activities in monitoring and evaluation. Partners also began energetically to address how to make better use of priority interventions to alleviate poverty and to show rapid progress toward the attainment of the Millennium Development Goals. However, before these changes were well underway, the period of observation for the Evaluation Team had come to a close.

Nonetheless, the Evaluation Team has followed these changes as closely as possible, and has been extremely impressed by the extraordinary pace and dedication of the partners involved. This is an exciting period for Roll Back Malaria, and one that will be watched with great interest and optimism by the international community. The challenge is immense, but the collective resources of the Partnership far exceed the challenge. We look forward to being able to look back in 2007 to acknowledge that these were the years that the world decisively and effectively began to roll back malaria.

Acknowledgements

Literally hundreds of people contributed to the Report of the External Evaluation of Roll Back Malaria. The Evaluation Team expresses a warm ‘thank you’ to all of them, and regrets that it is not possible to list all their names here.

The staff at the headquarters, Regional and Country Offices of the RBM partners in Geneva, London, New York, Washington DC, and Harare made heroic efforts to meet with Team members for interviews (sometimes on multiple occasions), to locate documents, track down dates and other detailed knowledge, and to provide follow up where needed.

In Cambodia, Cameroon and Tanzania, the WHO Country Offices and National Malaria Control Programmes arranged meetings and field visits on behalf of the Team. Scheduling was tight and had to be constantly readjusted, but without exception the disruption caused by our visits was accepted with grace and flexibility.

Special recognition goes to the group of individuals who were most actively involved in the organization and planning of the Evaluation. At the risk of omitting some names, the Team would like to thank in particular Larry Barat, John Paul Clark, Rachael Fletcher, Magda Robalo and Alastair Robb.

Feedback was gladly received from partners and others in response to the Team’s initial presentation of preliminary findings and the draft Report. Wherever possible, this Report incorporates the comments and suggestions received. As always, any and all remaining errors are the responsibility of the Evaluation Team.

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Acronyms

ACT	Artemisinin-based Combination Therapy
ADB	Asian Development Bank
ADF	African Development Fund (AfDB)
AfDB	African Development Bank
AFRO	Regional Office for Africa (WHO)
AIM	African Initiative on Malaria Control
AMRO	Regional Office for the Americas (WHO/PAHO)
APL	Adjustable Programme Loan (World Bank)
AusAID	Australian Agency for International Development
CAT	Communications and Advocacy Team (RBM)
CCDCE	Control of Communicable Diseases in Complex Emergencies Unit
CCM	Country Coordinating Mechanism
CDC	Centers for Disease Control and Prevention (Atlanta)
CDS	Communicable Diseases cluster (WHO)
CPA	Country Programme Advisors
CSP	Country Strategic Plans
CT	Combination Therapy
DFID	Department for International Development
DHS	Demographic and Health Surveys
EANMAT	East African Network for Monitoring Anti-malarial Treatment
EC	European Commission
ECTP	European Clinical Trials Platform
EMRO	Eastern Mediterranean Region (WHO)
EPI	Expanded Programme on Immunization
GAVI	Global Alliance for Vaccines and Immunization
GDF	Global Drug Facility
GFATM (or Global Fund)	Global Fund for AIDS, TB and Malaria
HIPC	Debt Initiative for Heavily Indebted Poor Countries
HNP	Health, Nutrition and Population (World Bank)
IDA	International Development Association (World Bank)
IEC	Information, Education, Communication
ITN	Insecticide-Treated Net
IMCI	Integrated Management of Childhood Illnesses
IPT	Intermittent Preventive Treatment
JICA	Japan International Cooperation Agency
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MIM	Multilateral Initiative on Malaria

MMV	Medicines for Malaria Venture
MNH	Maternal and Neonatal Health Program
MOH	Ministry of Health
MVI	Malaria Vaccine Initiative
NGO	Non Governmental Organization
NIH	National Institutes of Health
NMCC	National Malaria Coordination Committee
NMCP	National Malaria Control Programme
NPO	National Programme Officer
OECD	Organisation for Economic Cooperation and Development
PAHO	Pan American Health Organization
PATH	Program for Alternative Technology in Health
PRBS	Poverty-Related Budget Support programme
PRSP	Poverty Reduction Strategy Paper
RBM	Roll Back Malaria
RBM-CE	Roll Back Malaria in Complex Emergencies
RMC	Regional Member Countries (AfDB)
SAC	Structural Adjustment Credit
SAMC	Southern African Malaria Control
SADC	Southern African Development Community
SEACAT	South-East African Combination Anti-malarial Therapy
SEARO	Regional Office for South East Asia (WHO)
SP	Sulfadoxine/pyrimethamine
SPDF	Strategic Planning and Development Fund
SWAp	Sector Wide Approach
TDR	Special Programme for Research and Training in Tropical Diseases
TSN	Technical Support Network
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WPRO	Western Pacific Region
WR	WHO Representative

Executive Summary

This is the Final Report of the External Evaluation of Roll Back Malaria. The Evaluation was designed and commissioned by a loosely connected team of ‘core’ partners of Roll Back Malaria which included three of the four ‘founding’ partners – World Health Organization (WHO), United Nations Children’s Fund (UNICEF) and the World Bank – DFID, US Agency for International Development (USAID) and others. The ‘core’ partners selected a seven-member team with wide-ranging expertise in the areas of communications, economics and finance, health systems, human resources, global partnerships, and tools and research. Between the start of the Evaluation on January 14, 2002 and its close on March 31, 2002 the Evaluation Team made three country visits and interviewed many partners and stakeholders. A preliminary presentation of the Team’s Report was given at a meeting of the RBM partners in Geneva on February 27, 2002. A preliminary draft of the Team’s Report was circulated to partners for their comments in April 2002. The Report’s findings and recommendations are based on the Team’s assessment of RBM’s performance from its launch in 1998 until the close of the Evaluation on March 31, 2002. Thus, the many changes that were begun or have been completed by the Partnership following that date are *not* reviewed. Nonetheless, the Evaluation Team is pleased to note that many of these changes are consistent with the spirit of the findings and recommendations of this Report.

The Roll Back Malaria (RBM) movement was launched in November 1998 with great fanfare. Tackling malaria was a prominent part of the platform of Dr. Gro Harlem Brundtland’s campaign for the position of Director-General of the World Health Organization (WHO). RBM became one of the major initiatives of Brundtland’s new administration – a so-called ‘Cabinet Project’ which would report to her directly, rather than through a cluster unit at headquarters or one of the Regional Offices. Other partners, most notably the World Bank, UNICEF, DFID, and USAID, enthusiastically joined the enterprise. Roll Back Malaria was viewed to be different in important ways from other global partnerships. It was hoped that a ‘loosely’ constructed Partnership would avoid the risks inherent in a top-heavy management structure, and increase partners’ flexibility to act.

During Phase I (1998 to mid-2002) of RBM, there have been enormous achievements. A strategy of global advocacy has resulted in greater attention to the problem of malaria than ever before. International expenditures on malaria control have doubled. There is widespread agreement on the set of priority interventions that are required to make progress in the area of malaria control and prevention. It is possible that without RBM we would not now have a Global Fund for AIDS, Malaria and TB (Global Fund).

However, the Evaluation Team also identified serious constraints that have slowed progress in Phase I, and will continue to threaten progress in Phase II (mid-2002 to 2007) if not quickly resolved. Continued lack of progress will undermine the credibility of the Partnership and undercut future global initiatives. The most urgent message of the Evaluation Team is that the absolute and overriding priority for RBM is to demonstrate a significant reduction in the global burden of malaria by 2007. Thus, the Report emphasizes the need to get activities clearly underway at the country level in the very short term (three to five years).

To get progress quickly underway, the Evaluation Team recommends three major reforms of the RBM global architecture, and two tactical changes:

- Reorganization of the RBM Secretariat;
- Creation of an independent governance board;
- Reconstitution of the Technical Support Network (TSN);

- ❑ Selection of eight to twelve focus countries that show a high degree of commitment and can make rapid progress in the next three years; and
- ❑ Appointment of Country Champions to provide dynamic leadership in these focus countries.

The rationale for each of these recommendations, as well as for others made by the Evaluation Team, is based on findings which can roughly be described in terms of five categories of observation. These are:

- ❑ There have been major accomplishments in advocacy, resource mobilization, and consensus-building around priority interventions;
- ❑ The 'loose' governance structure has introduced inefficiencies in decision-making and has contributed to the overall lack of accountability within the Partnership;
- ❑ At the country level, progress in rolling back malaria has been slower than anticipated, and there are few systems in place to ensure rapid progress in Phase II;
- ❑ Countries receive inadequate and sometimes inconsistent technical advice from RBM and its partners;
- ❑ In practice, there has been insufficient attention given to multi-sectoral approaches, particularly as regards private sector activity.

There is no one-to-one relationship between key findings and recommendations of the Evaluation Team. However, the examples and supporting evidence which link them together are presented in tabular form below. This is by no means an attempt to represent the exhaustive list of findings and recommendations contained in the Report. The specific recommendations linked to each technical area such as communications, human resources and capacity development, monitoring and evaluation, and tools and research, to name only a few, merit individual discussions. These are provided in the comprehensive presentation of findings in Chapters 2 and 3 of the Report.

Summary of Key Findings and Recommendations	
Findings in Phase I Examples and Supportive Evidence	Recommendations for Phase II Specific Comments
<p>1. Major accomplishments in advocacy, resource mobilization, and consensus-building around priority interventions</p> <ul style="list-style-type: none"> a. Global spending has doubled since 1998 b. Increase in global awareness (e.g. Abuja Summit; Global Fund) c. Identification of four priority interventions d. Lack of good quality data on global trends limits advocacy efforts 	<p>1. Continued progress in each of these areas is essential, but advocacy is likely to benefit from more attention to linkages between malaria and poverty</p> <ul style="list-style-type: none"> a. Could make better use of Highly Indebted Poor Countries (HIPC) initiative resources and other financial mechanisms b. Develop advocacy tools to influence consumer demand at country level c. Improve programmatic strategies to deliver priority interventions d. Focus monitoring and evaluation efforts on a small number of key indicators
<p>2. ‘Loose’ governance structure has introduced inefficiencies in decision-making and has contributed toward lack of accountability within the Partnership</p> <ul style="list-style-type: none"> a. Partners express high dissatisfaction with how the Secretariat is functioning b. No clear definition of ‘core’ partners or of specific roles and responsibilities c. Few good examples of coordination action on the ground, at country level d. Secretariat is seen to be more responsive to WHO than to other partners 	<p>2. Tighter coordination is needed to focus energies and improve accountability</p> <ul style="list-style-type: none"> a. Need to focus and show results quickly b. Establish an independent governing body with fixed and rotating members c. Select focus countries and assign specific roles and responsibilities to partners d. De-link Secretariat from WHO Technical Team, and make the Secretariat accountable to the Board
<p>3. At the country level, progress has been slow, and few systems are in place to ensure rapid progress in Phase II</p> <ul style="list-style-type: none"> a. Weak National Malaria Control Programmes and National Programme Officers are unable to advocate at high levels b. Country Strategic Plans are rarely linked to broader health sector development and planning efforts c. Technical interventions are applied in piecemeal fashion linked to broader programmatic initiatives d. Inadequate attention given to human resources and capacity development e. Too little innovation and experimentation 	<p>3. Focus on a small number of countries for rapid progress</p> <ul style="list-style-type: none"> a. Assign Country Champions to work proactively in the focus countries (should be relatively senior). b. Link malaria planning to health sector planning and budgetary cycles of countries c. Improve programmatic linkages to Integrated Management of Childhood Illnesses (IMCI), Expanded Programme on Immunization (EPI), etc. d. Strengthen programmatic linkages and focus on private sector delivery strategies e. Emphasize operations research

Summary of Key Findings and Recommendations (contd.)	
Findings in Phase I Examples and Supportive Evidence	Recommendations for Phase II Specific Comments
<p>4. Countries receive inadequate and sometimes inconsistent technical advice</p> <p>a. Lack of clarity over technical roles of WHO versus Secretariat (and other partners)</p> <p>b. Lack of satisfactory mechanisms for achieving consensus around key ‘technical’ issues requiring multi-disciplinary solutions</p> <p>c. In the African region, roles of WHO headquarters and WHO AFRO are not well coordinated</p>	<p>4. The respective technical roles of WHO and the RBM Secretariat must be more clearly defined.</p> <p>a. Distinguish between types of technical assistance (e.g. scientific, clinical and non-clinical, programmatic, financial, etc.) and clarify roles</p> <p>b. Reconstitute and strengthen Technical Support Networks.</p> <p>c. This is an internal matter for WHO to resolve in a manner consistent with the ‘One WHO’ policy</p>
<p>5. Insufficient attention to multi-sectoral approaches to health sector development, especially as regards private sector role</p> <p>a. Current emphasis is on high profile relationships with private sector</p> <p>b. High out of pocket expenditures for malaria</p>	<p>5. Provide the basic rationale for a tighter relationship among partners with strong Secretariat at the hub</p> <p>a. On the supply side, strengthen private sector capacity in manufacturing and distribution of drugs and nets</p> <p>b. On the demand side, rely on existing community and other networks to improve quality and equity of access to health care</p>

Chapter 1

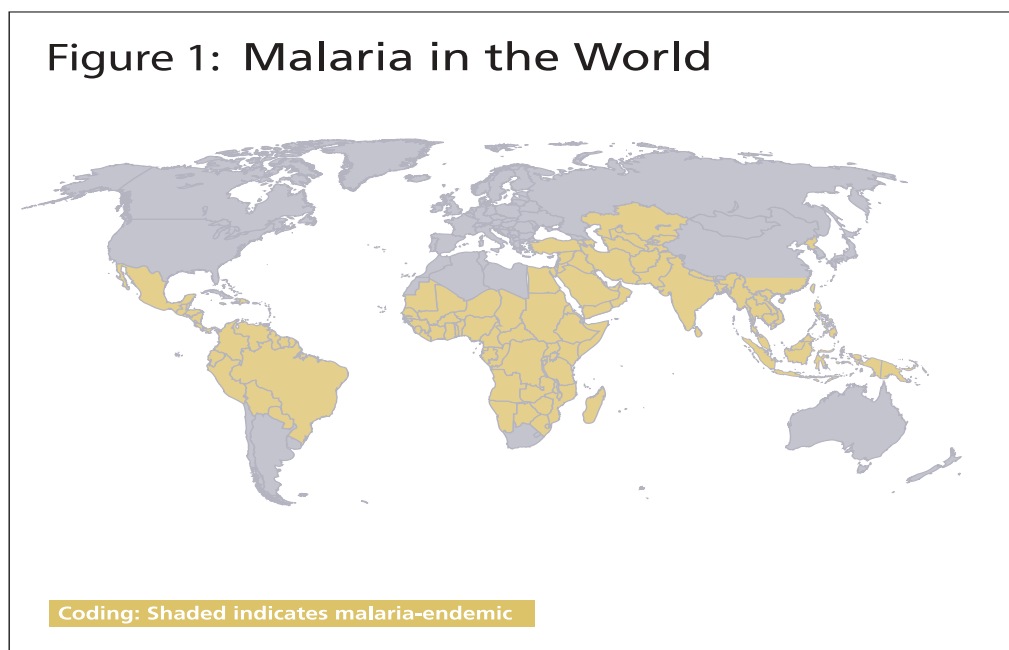
Roll Back Malaria and the Evaluation

1.1 Roll Back Malaria

The Roll Back Malaria (RBM) Partnership was launched in November 1998 with great fanfare. Tackling malaria was a prominent part of the platform of Dr. Gro Harlem Brundtland's campaign for the position of Director-General of the World Health Organization (WHO). RBM became one of the major initiatives of Brundtland's new administration – a so-called 'Cabinet Project' which would report to her directly, rather than through a cluster unit at headquarters or one of the Regional Offices. Other partners, most notably the World Bank, UNICEF, DFID and USAID, enthusiastically joined the enterprise. Roll Back Malaria was viewed to be different in important ways from other global partnerships. It was hoped that a 'loosely' constructed Partnership would avoid the risk of creating a top-heavy management structure, and increase partners' flexibility to act. Roll Back Malaria quickly grew into a major international campaign to control one of the great historic scourges of humankind.

1.1.1 Burden and Impact

Malaria is endemic in 130 countries (Figure 1) ranking eighth among the world's leading causes of ill health, and eleventh among its leading causes of death. Malaria causes 300-500 million episodes of acute illness and 1.2 million deaths per year. In Africa, malaria is the leading cause of death in children under five years and, in some countries, accounts for one quarter of all such deaths. Malaria is a disease of poverty. 58 percent of all malarial deaths are concentrated in the



world's poorest 20 percent, the highest association of any disease with poverty.

A large economic disadvantage is also placed on countries and regions because of malaria. This comes not only from the direct costs of illness and premature death, but also from the broader social and economic costs that malaria imposes on households and societies. Gallup and Sachs (2001) estimate that in 1995 countries with intensive malaria had roughly one-third the income levels of non-malarious countries. Furthermore, it appears that the highly malarious countries are likely to remain poor, relative to their non-malarious counterparts. Gallup and Sachs also show that during the 1965-90 period countries with intensive malaria grew by 1.3 percent less per person, annually, controlling for factors such as initial poverty, economic policy, tropical location and life expectancy.

Unfortunately, despite three years of RBM, malaria has continued to worsen. This deterioration is due to both increased illness and death in the endemic areas, and an expansion of those areas. This is discussed further in Section 2.9.

1.1.2 Antecedents

Prior to RBM's launch, a series of unsuccessful initiatives to curb the growing burden of malaria contributed to a sense of skepticism and disillusionment among international health experts. The WHO Malaria Eradication Programme (1955-69) resulted in widespread disappointment and failure, after 15 years of a coordinated, multinational effort.¹ On a more modest national scale, the WHO-sponsored vector control projects in Cameroon, Nigeria and elsewhere in Africa in the 1960s were also largely ineffective. During the 1980s and 90s, especially in Africa, malaria control programmes fell into disrepair or were abandoned entirely. Problems were compounded by growing resistance to insecticides and drugs, general weaknesses in the health care infrastructure, and economic shocks that reduced government spending per capita on health care. The malaria situation worsened, and fatalism and resignation towards the disease became widespread.

During the 1990s, momentum towards a new attack on malaria, especially in Africa, gathered strength. A Malaria Control Strategy for Africa was first formulated in 1987, and was revised and adopted at the Inter-regional Malaria Conference in Brazzaville in 1991. In 1992, the Ministerial Conference on Malaria in Amsterdam enunciated a Global Malaria Control Strategy, which was endorsed by The Economic and Social Council of the United Nations (UN) in 1994. The World Health Assembly passed a resolution on controlling malaria in Africa in May 1996 and the Organization of African Unity (OAU) made declarations on malaria in Harare in 1997 and Ouagadougou in 1998.

The decade of the 1990s witnessed two major programmatic achievements. In mid-1996 WHO secured funding to accelerate the implementation of the Africa Regional Malaria Control Strategy in eight countries in Southern Africa: Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe (and, later, Angola and Tanzania). The goal was to strengthen existing national malaria control programmes and promote greater inter-country cooperation. In 1997 the WHO Regional Office for Africa (AFRO) received \$9 million from the WHO Director-General's Special Fund for Accelerated Implementation of Malaria Control to support malaria control programmes in 21 countries. In 1998 AFRO received an additional \$9 million to support malaria control activities in 27 countries.

¹Chloroquine for treatment and DDT for house spraying were the backbone of this programme. Eradication was achieved in southern Europe and some countries of north Africa and the Middle East. In other countries, notably India and Sri Lanka, malaria was greatly reduced but subsequently rebounded. Sub-Saharan Africa was excluded from the Malaria Eradication Programme, having been declared 'not ready' by international experts.

In 1997 a regional partnership initiative known as the African Initiative on Malaria Control (AIM) was launched by representatives of the World Bank, WHO, UNICEF and others (including DFID, the Malaria Consortium and USAID). The goal² was to intensify efforts to control malaria in the regions through long-term commitments by partners of up to 25 to 30 years. Together, AIM and the Accelerated Implementation of Malaria Control programme provided the foundation for the launch of Roll Back Malaria in October 1998.

1.1.3 RBM Structure and Goals

The causes and consequences of the ‘malaria problem’ are linked to the social, cultural, political and economic fabric of developing countries. The intention of the founding partners of RBM – WHO, World Bank, UNICEF and the United Nations Development Programme (UNDP) – was to mobilize a broad-based and comprehensive effort to tackle malaria by addressing the complexity of its roots. Many bilateral agencies also quickly pledged their support, and the RBM Partnership has since grown to over 90 multilateral, bilateral, non-governmental and private sector organizations. At its inception, RBM’s mandate was:

- to seek greater support for malaria control activities, worldwide;
- to raise awareness of the global problem of malaria; and
- to support malaria-affected countries to develop effective programmes.

Within the RBM Partnership the role of the WHO Cabinet Project was twofold:

- to serve as the Secretariat for the RBM Partnership; and
- to provide technical leadership within the RBM Partnership and technical support to WHO member states. (This is sometimes referred to as WHO’s normative role.)

Specific RBM targets were identified at the Abuja Summit of African heads of state and government leaders in Abuja, Nigeria, in April 2000. With the Abuja Declaration on Roll Back Malaria, representatives from 44 of the 50 malaria-affected countries in Africa³ committed themselves to halving malaria mortality by the year 2010. They also resolved to “initiate appropriate and sustainable action to strengthen the health systems to ensure that, by the year 2005:

- at least 60 percent of those suffering from malaria have prompt access to and are able to use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms;
- at least 60 percent of those at risk of malaria, particularly pregnant women and children under five years of age, benefit from the most suitable combination of personal and community protective measures such as insecticide-treated mosquito nets and other interventions which are accessible and affordable to prevent infection and suffering; and
- at least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment.”

² In May 1996, Dr. Ebrahim Samba (Regional Director of AFRO) and Dr. Richard Feachem (then Director of Health, Nutrition and Population at the World Bank) wrote to 20 senior policy makers and health experts proposing a new initiative to combat malaria in Africa. Their letter and hypothesis are reproduced at Annex A. To their surprise, the response was overwhelmingly positive, and the revised hypothesis, taking into account the feedback from the experts, is also included in Annex A.

³ Of the 50 malaria-endemic countries in Africa, 45 are in the region covered by AFRO and 5 are in the region covered by the Eastern Mediterranean Regional Office of WHO (EMRO).

Also in the year 2000, the 55th Session of the UN General Assembly resolved, as part of the Millennium Declaration⁴, “to have [by the year 2015] halted, and begun to reverse, the spread of HIV/AIDS, the scourge of malaria and other major diseases that afflict humanity.” Other international agencies including the World Bank, International Monetary Fund and the Organisation for Economic Cooperation and Development (OECD) quickly pledged their support to the Millennium Development Goals (MDGs), and began to focus their efforts on implementation and the development of indicators for measuring progress. The eight goals, 18 targets and 44 indicators were set out in a report of the Secretary General, *Road Map Towards the Implementation of the United Nations Millennium Declaration* in September 2001. The indicators⁵ selected for malaria are:

- ❑ ‘prevalence and death rates associated with malaria;’ and
- ❑ ‘proportion of population in malaria risk areas using effective malaria prevention and treatment measures.’

As evidence of the tight correlation between poverty and malaria has grown, Roll Back Malaria is increasingly viewed as a critically important vehicle for attainment of the MDGs.

1.1.4 Definitions

The term ‘Roll Back Malaria’ is used by many to refer to a variety of different concepts and sets of relationships. In an effort to avoid confusion, this Report will refer to ‘RBM,’ the ‘RBM Partnership’ or ‘the Partnership’ to refer to the overall initiative. It will refer to the ‘RBM Secretariat’ or ‘the Secretariat’ to refer to the Partnership’s global office, located at WHO Headquarters.

Because the number of RBM partners has grown and proliferated over time, it has become difficult to know who among the partners is in charge, and who is responsible for making decisions on behalf of the entire Partnership. The ‘founding’ partners of RBM – WHO, the World Bank, UNICEF and UNDP – were responsible for launching the Partnership in 1998. However, since that time, a number of additional institutes and agencies have become actively involved in RBM, and a non-exhaustive list of these includes DFID, USAID, the Malaria Consortium, the Swiss Tropical Institute and other bilateral agencies. The term ‘core’ partners is used loosely throughout the text to suggest a small group of highly active partners involved in the Roll Back Malaria Partnership, but without referencing any of them specifically.

As discussed in Section 2.2.1 of this Report, the Evaluation Team observed that the lack of clarity over who makes decisions on behalf of the Partnership is a hindrance to the decision-making process, and introduces unnecessary confusion over goals and priorities of the Partnership as a whole.

1.2 The External Evaluation

The decision on the part of the ‘core’ partners to organize an External Evaluation was initially prompted by DFID. For its own internal purposes, DFID required a mid-term review of its four-year commitment of £48 million to the RBM Secretariat. The World Bank, which contributes to RBM through its Development Grant Facility, also had a formal requirement for an evaluation in

⁴ The eight Millennium Development Goals are to eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; and develop a global partnership for development.

⁵ The Road Map also restates the main target as to “have halted by 2015 the incidence of malaria ...”. As with the original formulation of ‘halting the scourge’, this makes no sense epidemiologically and requires imaginative interpretation.

2002. Given the impossible task of tracking the impact of specific contributions, DFID proposed that the partners come together to conduct a broad External Evaluation of the RBM Partnership. The overriding purpose would be to evaluate the ‘value-added’ of the RBM Partnership, starting with the null hypothesis that individual partners would be better off engaging in bilateral relationships with countries rather than attempting to coordinate their efforts globally to support malaria control activities. The alternative hypothesis was that RBM has provided a vehicle for coordination among partners that creates synergies in their efforts, resulting in better overall progress toward rolling back malaria on a global scale.

Name	Topic	Home Institution
David Daniels	Health Systems	Institute for Health Systems Development, London, UK
David Dunlop	Economics and Finance	Dartmouth Medical School, USA
Richard Feachem	Team Leader	Institute for Global Health, University of California, San Francisco and Berkeley, USA
Carol Medlin	Global Partnerships	Institute for Global Health, University of California, San Francisco and Berkeley, USA
Hassan Mshinda	Research and Tools	Ifakara Health Research and Development Centre, Ifakara, Tanzania
Jonathon Petko	Human Resources and Management	Independent Consultant, Toronto, Canada
Susan Zimicki	Communications and Advocacy	Academy for Educational Development, Washington DC, USA

The ‘core’ partners together assembled a seven-member Evaluation Team, with areas of expertise in communications, economics and finance, health systems, human resources, global partnerships, and tools and research (Table 1). Between the start of the evaluation on January 14, 2002 and its close on March 31, 2002, the Evaluation Team made three country visits, interviewed many partners and stakeholders, and reviewed an extensive set of relevant documents and materials. The visits and interviews are set out in Table 2.

As part of the overall evaluation project, USAID organized and financed separate studies on complex emergencies (Waldman, 2002) and monitoring and evaluation (Macintyre *et al*, 2002). In addition, DFID commissioned a consultant to conduct a series of telephone interviews targeting a sampling of countries that participate in RBM but had not been selected for site visits (Green, 2002). The Macintyre and Green reports were completed prior to this External Evaluation report while the Waldman report was not. Information from each of these studies provided additional inputs for the Evaluation Team’s work.

The External Evaluation built upon the work of a comprehensive RBM Internal Review⁶ conducted by WHO (RBM, 2001). The Internal Review was completed in November 2001 and

⁶ Other recent reviews of global programmes were also consulted, including the Joint Evaluation of DFID and USAID support to the WHO Regional Office for Africa Malaria Unit (AFRO/MAL) in 1999, the

covered much the same ground as the External Evaluation, except for being primarily focused on WHO's role in RBM. The External Evaluation has drawn freely on the Internal Review, the conclusions of which are generally consistent with those of the External Evaluation. A summary of the main conclusions of the Internal Review are set out in Annex B.

A preliminary presentation of the Team's report was given at a meeting of the RBM partners in Geneva on February 27, 2002. Partners had the opportunity at the meeting to discuss these preliminary findings and also to interact on an individual basis with members of the Evaluation Team to offer additional perspectives. Partners were also given the opportunity to comment on a complete draft of this written report before it was finalized.

The approach of the Evaluation Team was to assess the impact of RBM in two phases – Phase I and Phase II. Phase I is the period from initial launch in 1998 until today, in which RBM has been *preparing for impact*. Phase II is the period from now on, during which RBM must focus urgently on *achieving impact*, and demonstrating significant progress toward meeting the Millennium Development Goals and the Abuja targets. The focus of the Evaluation Team was to evaluate Phase I, with a particular emphasis on assessing RBM's level of preparedness for ensuring success in Phase II. The findings and recommendations of this report are constructive, forward-looking and mindful of the wider context in which RBM must operate.

Table 2
Agencies Contacted and/or Visited and Countries
Visited by RBM External Evaluation Team,
January 14, 2002 - March 31, 2002

Agencies contacted and/or Visited:

African Development Bank	Malaria Consortium
AFRO (WHO Regional Office for Africa)	PAHO (Pan American Health Organization)
Bill and Melinda Gates Foundation	Rockefeller Foundation
Centers for Disease Control and Prevention	SAMC (Southern Africa Malaria Control)
CORE Child Survival Collaborations and Resources Group	SEARO (WHO South-East Asia Regional Office)
DFID (Department for International Development)	Stop TB Initiative
European Commission	UNICEF (United Nations Children's Fund)
GAVI (Global Alliance for Vaccines and Immunization)	USAID (US Agency for International Development)
GFATM (Global Fund to Fight AIDS, Tuberculosis and Malaria)	World Bank
LSHTM (London School of Hygiene & Tropical Medicine)	World Health Organization
	WPRO (WHO Western Pacific Regional Office)

Countries Visited:

Cambodia
 Cameroon
 Tanzania

USAID/DFID Review of IMCI in the African Region in 2001, and the mid-term review of the Southern Africa Malaria Control (SAMC)-WHO Inter-country Malaria Programme which was sponsored by the Australian Agency for International Development, DFID and WHO (October 2000).

Chapter 2

Roll Back Malaria to Date

This chapter reviews the experience of RBM from its inception in 1998 until today, describing both significant achievements and major weaknesses. The chapter ends with an overall assessment of whether RBM was needed in the first place, whether it is still needed, and whether it is well placed to achieve its goals in Phase II.

In addition to conducting extensive interviews and field visits in three countries, the Team consulted secondary materials (published documents and reports, scientific articles, and previous evaluations) to generate these findings. Though comprehensive, the evidence gathered by the Team was not all-inclusive. For example, the countries selected for field visits were not randomly selected, but were chosen on behalf of the Team by the 'core' partners. The snapshot of RBM that resulted may have looked somewhat different had the Team visited a different selection of countries or regions in which RBM is active, or interviewed a different set of interested parties. However, the Team was struck by the degree of consistency reflected in the various sources used as evidence and across the technical areas studied. The Team was further impressed by the confirmatory comments received from reviewers on the draft report circulated in early Spring 2002.

2.1 Achievements in Phase I

Phase I is mainly about preparing for impact. Appropriately, therefore, the main achievements of Phase I have been in enhancing commitment, building strategic and technical consensus, and mobilizing resources. There have also been some achievements at the country level.

2.1.1 Enhanced Commitment

The most significant accomplishment of Phase I has been that the world has embraced the problem of tackling malaria with renewed vigour and optimism. Against great odds, the Roll Back Malaria movement successfully mobilized the collective efforts of the international agencies, bilaterals, the NGO community and others to promote a 'can-do' attitude that represents a sea-change in perspective compared with the fatalism of just a decade before.

With the Abuja Declaration in April 2000, the Roll Back Malaria movement gathered steam, having obtained political commitment at the highest level for confronting the problem of malaria in Africa. The success of the Abuja Summit was followed quickly by a pledge of the G-8 following the Okinawa Summit in July 2000, to reduce the burden of disease associated with malaria by 50 percent by the year 2010. These events were accompanied by the UN General Assembly's declaration of 2001-2010 as the Decade of Malaria, and the announcement of the Millennium Development Goals. The momentum galvanized by RBM helped bring malaria to the centre of attention of the international community, creating greater awareness of malaria as a leading killer of the world's poor. Without RBM's existence, it is possible that malaria would not have been included as one of the three diseases targeted by the newly launched Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund).

2.1.2 Building Consensus

RBM has played a major role in generating a broad consensus among partners around a four-part strategy to organize malaria control activities. Thus, partners are now committed to concentrating their efforts on:

- ❑ **prevention, with a special emphasis on insecticide-treated nets (ITNs);**
- ❑ **rapid diagnosis and treatment**, including the adoption of agreed-upon and coherent drug-use guidelines to provide effective care, reduce transmission and slow the development of resistance;
- ❑ **treatment of pregnant women**, in order to improve their health and the health of the newborn (referred to as Intermittent Preventive Treatment, or IPT); and
- ❑ **rapid response to malaria epidemics**, in areas with unstable malaria.

The consensus includes the conviction that this four-part strategy, if properly applied, can indeed roll back malaria.⁷ This is a remarkable achievement, particularly in light of the scepticism that continues to exist in some circles around whether or not the appropriate tools exist to reduce the burden of malaria in areas of high transmission. In addition, consensus has been developed concerning more detailed issues lying within each element of the strategy; for example, concerning scaling up ITN programmes in Africa.⁸

In addition, there have been significant technological advances over the past few years in which RBM has played an important role. These include the development of long-lasting insecticide-treated nets, blister packs to improve treatment effectiveness and compliance, and the identification and increased use of new combination drug therapies.

RBM has also played a role in promoting progress and consensus in other, sometimes difficult, areas. Notably, RBM has successfully lobbied for the lowering of taxes and tariffs on net imports in 17 African countries (Box 1 and Figure 2). RBM was also instrumental in achieving an outcome in the DDT controversy which would not be detrimental to the interests of malaria-endemic countries (Box 2 – see page 15).

2.1.3 Resource Mobilization

Growing political commitment and awareness has been accompanied by an increase in the amount of overall resources available for malaria worldwide. Prior to the launch of RBM, total international spending on malaria was approximately \$67 million per year. By the year 2002, this figure had grown to \$130 million, a two-fold increase. Resource mobilization is discussed at greater length in Section 2.4.

2.1.4 Progress at the Country Level

Progress with malaria control at the country level during the first few years of RBM has been positive but limited. In part, this is as expected, given the enormous emphasis that RBM has placed in the early years on increasing awareness, mobilizing resources and generating technical consensus. In most countries RBM is a known entity and has certainly increased the level of interest in and support for malaria control.

⁷ An excellent source for the evidence behind the four-part strategy is provided in *The Evidence Base for Interventions to Reduce Malaria Mortality in Low and Middle-Income Countries*, by Meek, Hill and Webster and produced as part of the Commission on Macroeconomics and Health. Working Paper Series (September 2001).

⁸ See *Scaling Up Insecticide-Treated Netting Programs in Africa: A Strategic Framework for Coordinated Action*. (RBM, 2002)

Box 1

Taxes and Tariffs

The high cost of insecticide-treated nets (ITNs) is one of the critical barriers to their widespread use, and taxes and tariffs contribute significantly to that cost. Over the past three years, seventeen countries¹ in Africa south of the Sahara have either reduced or eliminated taxes and tariffs on the importation of mosquito nets, netting material and insecticides. The successful adoption of these reforms by some countries, and the continued advocacy on behalf of these policies throughout Africa and elsewhere, has been one of the key achievements of Roll Back Malaria in Phase 1.

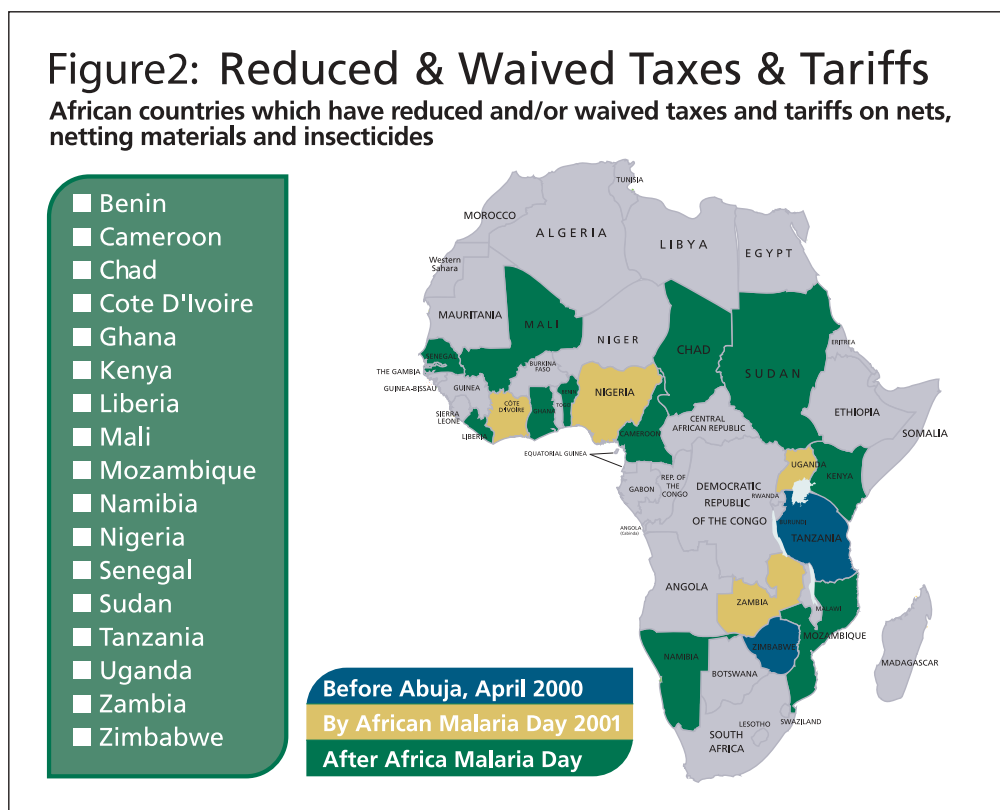
The need for reform in these areas was well known prior to the launch of the RBM Partnership. However, RBM has been able to add impetus and urgency to what might have been a painstakingly slow and low-profile process of reform undertaken independently by countries in the region. The substantial progress that has occurred within the relatively short period of time since the Abuja Summit in April 2000 was made possible only through the collaboration of RBM Partners.

RBM continues to monitor the impact of reforms in countries which have elected either to eliminate or reduce taxes and tariffs on ITNs and other products, and also continues to advocate for reform in other countries. Highlights of activities undertaken heretofore include:

- ❑ Development of an evidence base to support policy dialogue, promoted by the NGO community, academic researchers, and bilateral and international agencies.
- ❑ Continued discussion of the evidence base at international and regional meetings, contributing to a growing awareness that reduction or elimination of taxes and tariffs on ITNs is a worthwhile policy goal for all countries in the Africa region.
 - RBM Partners worked together to place a "call for the elimination of taxes and tariffs on ITNs" in the record and proceedings of the World Trade Organization (WTO) summit held in Seattle, Washington, USA in 1999. The call was made on behalf of the Southern African Development Community (SADC) by the Honourable Representative of Tanzania.
 - The Declaration of the Abuja Summit, signed on April 25, 2000 by 44 African Heads of State or senior representatives, included the following resolution: "To take immediate action to reduce or waive taxes and tariffs for mosquito nets and materials, insecticides, anti-malarial drugs and other recommended goods and services that are needed for malaria control strategies."
- ❑ Various RBM partners have worked to disseminate information on the barriers posed by taxes and tariffs to widespread use of ITNs and the potential benefits of eliminating them. Target audiences include health, economic, trade and foreign policy specialists.
- ❑ Policy dialogue and policy reform were successfully taken forward in Tanzania providing a case study for RBM Partners and an example for other African nations.
- ❑ The First Africa Malaria Day (AMD1) took place on April 25, 2001, providing the occasion to take stock of the status of implementation of the Abuja Declaration. The RBM Secretariat released a report it had commissioned on the status of tax and tariff policy. Also, several countries announced a policy change and/or signed legislation reducing or waiving taxes on ITNs.
- ❑ The effort is ongoing. RBM Partners continue to draw attention to the status of tax and tariff reforms and to encourage reforms in countries that have not yet made them. The RBM Partners also support market surveillance to determine the impact the reforms are having on price and use of ITNs.

Continued progress is needed to ensure that reductions in taxes and tariffs are large enough to allow commercial partners useful access to markets. By this measure, a more sobering estimate of the number of countries following through on the Abuja declaration is seven to ten.

¹ Benin, Cameroon, Chad, Côte d'Ivoire, Ghana, Kenya, Liberia, Mali, Mozambique, Namibia, Nigeria, Senegal, Sudan, Tanzania, Uganda, Zambia, Zimbabwe.



In the countries of South-East Asia, including Cambodia, Thailand and Vietnam, malaria control was in relatively good shape prior to RBM and probably would have continued to develop and have impact whether RBM was created or not. However, those involved in these achievements are quick to point out that since the creation of RBM they have received more support and greater legitimacy. RBM has enabled these already successful countries to do better and faster what they would have done anyway. These comments also apply to Latin America.

In Africa RBM has built upon AIM and created increased momentum and commitment at the country level. This commitment and activity is not yet adequate, but it has undoubtedly increased since 1998. For African countries that had become despondent about malaria, RBM has provided a rallying call and a legitimacy. In the health field, one is no longer a crank if one calls for a major effort to control malaria. In finance and planning, one can refer to an international consensus in calling for increased investment in malaria control. Among the donor offices in African countries, it is widely known that many donors have committed globally to giving increased emphasis to malaria control.

RBM has worked with individual African countries to complete 15 Country Strategic Plans (CSPs), with several more in the pipeline. RBM has also increased and strengthened the availability of technical support on which countries can call. This increase is evident at WHO in Geneva, at AFRO in Harare, and through reliance on Inter-Country Teams to provide technical support to groups of countries in sub-regions of Africa.⁹

⁹ AFRO formed four Inter-Country Teams in 1997. Two are operational – one in Harare for ten countries in Southern Africa, and one in Kampala for seven countries in East Africa. Two others are not fully staffed – one in Libreville for seven countries in Central Africa and one in Lome for 16 countries in West Africa plus Algeria. Among these, the Southern Africa Malaria Control (SAMC) team has proven especially effective.

Box 2

The DDT Controversy

In 1999 the RBM Secretariat was called upon to help resolve a controversy emerging from intergovernmental negotiations to establish an international environmental treaty. At the centre of this controversy was DDT, former hero of the malaria eradication campaign and current totemic villain of the environmental movement. The treaty being negotiated was intended to eliminate the production and use of twelve persistent organic pollutants. DDT, still used for malaria control in over 20 countries, was included among 'the dirty dozen' chemicals slated for elimination, eliciting a strong reaction from public health activists and malaria specialists who claimed that its elimination would result in unacceptable increases in malaria morbidity and mortality. Environmental specialists and others claimed that environmentally friendly alternatives to DDT, although more expensive, could easily be deployed to guard against such a negative impact.

The controversy over the role of DDT in malaria vector control and the dangers posed to the environment escalated and attracted considerable media attention. The controversy was perpetuated in part because of a relatively weak evidence base on the human toxicity of DDT, the cost-effectiveness of proposed alternatives, and the probable impact of public health use of DDT (compared to agricultural use) on the environment. Resolution was also hampered by the relative lack of public health expertise among the Intergovernmental Negotiating Committee delegates, who were primarily active in the fields of foreign and environmental policy.

The challenges presented to the RBM Secretariat in responding to the controversy were many and varied. They included: evaluation of the evidence base and the drafting of policy guidance (a WHO normative role); a major communications effort; and the establishment of new cross-sectoral partnerships and working relationships. In the process, RBM formed new and highly effective 'partnerships' or 'working relations' with the United Nations Environment Programme (UNEP), the US Environmental Protection Agency, the environmental policy apparatus of core RBM partners, as well as a variety of health and environmental NGOs. RBM conducted country and informal expert consultations and convened and chaired a special working group on DDT which was able to establish a position on the use of the insecticide in public health and the process for evaluating and moving to alternatives. The weight of WHO's technical authority contributed greatly toward establishing the credibility of the working group. Information about the treaty negotiations and the WHO position on DDT was disseminated to health specialists via the WHO regional networks and to treaty focal points via UNEP. The RBM Secretariat led the WHO delegation to all meetings of the Intergovernmental Negotiating Committee and prepared information and media events for each, supporting the participation of health/malaria specialists from a number of countries. The RBM Secretariat also served as the media focal point on malaria and DDT and provided interviews and information to all major media, as well as presentations to professional meetings and interest groups.

RBM's objectives throughout this process were:

- to establish consensus on the present and future role of DDT and alternatives in malaria control;
- to encourage greater involvement of public health specialists in country-level discussions about the treaty and in country delegations to the negotiating sessions;
- to provide information to negotiators and others that would reduce controversy and result in a win-win situation for public health and the environment (in which the longer term goal of DDT elimination is achieved through strengthened, more robust malaria control);
- to benefit from the media attention to inform the public about malaria; and
- to mobilize resources to support malaria control from outside the health sector.

All of these objectives have been met and the final treaty, known as the 'Stockholm Convention on Persistent Organic Pollutants' provides for the continued public health use of DDT and international assistance for the development and implementation of alternatives.

Resources to support the initial work of the RBM Secretariat were provided by environmental agencies/offices. In addition, the Pan American Health Organization (PAHO) and the WHO Regional Office for the Americas (AMRO) and most recently the WHO Regional Office for Africa (AFRO) have been awarded project development grants from the Global Environment Facility (GEF) to promote regional efforts to strengthen malaria control and reduce reliance on DDT.

2.2 Under-performance in Phase I

The Evaluation Team found that weaknesses in the global and regional structures of RBM have contributed to a failure to get activity fully underway at country level in Phase I. The source of these weaknesses, and a description of their impact on malaria control activities at the country level, are reviewed in this section.

2.2.1 The Global Level

Partnership

At the global level, partners remain committed to the concept of RBM and to the global priority of reducing the economic and social burden caused by malaria. All expressed a desire to move forward optimistically and to make the Partnership work better. However, the Evaluation Team found dissatisfaction and frustration concerning the RBM Partnership among all partners, and a shared sense that the Partnership worked better in the early days of RBM and has deteriorated more recently. It is widely believed that the RBM Partnership requires revitalization and re-engineering in order to achieve its goals.

All partners expressed a healthy degree of self-criticism. They volunteered to the Evaluation Team areas in which they felt they could perform better, and acknowledged the validity of adverse comments made about them by other partners. The Evaluation Team was encouraged by this sense of commitment to the future, and the apparent willingness to make changes in the RBM Partnership which would ensure greater effectiveness.

Management

RBM had been hindered by management changes at the top of the RBM Secretariat and Cabinet Project at WHO in Geneva. Since the launch of RBM three years ago, there have been four different senior managers, with delays and uncertainties between these appointments. This degree of management and leadership change is bound to affect performance. Stable leadership is required.

Structure

When RBM was created, a decision was taken to make the Partnership loose and somewhat informal. The argument was that this would encourage a strong participatory approach. Organizations wishing to make a contribution would be free to become partners and no one would feel excluded. The Partnership was seen as an organic entity; changing in its membership through time in response to circumstances and encouraging maximum engagement from the maximum number of actors. This model undoubtedly had appeal, and may have been responsible for the early success of the Partnership in raising commitment and moving so quickly to the Abuja Summit. Today, those involved in RBM, and particularly the core partners, unanimously feel that this model is not appropriate as RBM moves forward.

First, it is not clear who the partners are or what partnership means. There is talk of core partners, with the implication that they are particularly important to the success of the enterprise. Core partners are not defined specifically, and their roles and responsibilities are not clear. This looseness and uncertainty is confusing to the partners themselves; it allows the partners to avoid responsibility and to put blame on others; and it is also confusing to clients at the country level.

The most damaging effect of this loose Partnership has been that in practice partners yield most of the responsibility for RBM to WHO, and then blame WHO for what goes wrong. WHO has housed the Secretariat for the Partnership; WHO has been the home of the large team of RBM professionals dealing in a wide range of RBM subject matter; WHO is seen as the organization that has got to make things work and fix things that go wrong. This is unhealthy. In addition, this

structure has made RBM appear more and more like a WHO programme with friends, rather than a true partnership of equals, all of whom are committed to specific roles and responsibilities.

This structure has also encouraged a culture of ‘going it alone’ within WHO. Decisions may be taken without consulting the other partners. Requests for information and clarification from the other partners may go unanswered. The value of fully involving the other partners is not always perceived.

Although RBM was originally designated a ‘Cabinet Project’, the significance of this special status has been lost over time. RBM is increasingly viewed as ‘just another’ WHO programme. This perception is linked historically to the combining of the technical functions (i.e. WHO contributions as one partner within the RBM Partnership) with the Secretariat functions which serve the Partnership as a whole. These two distinct functions are both reporting to the same manager and, to some degree, have been intermingled. This manager used to report to the Director-General under the previous Cabinet Project status of RBM. Now this manager reports to an Executive Director within WHO, further reinforcing the perception of ‘just another’ programme.

Governance

Closely linked to the structural and organizational issues raised above is the question of governance. RBM has no governance structure. This further reinforces the impression that it is a WHO programme with friends and encourages a business-as-usual culture within WHO. It puts the other partners in a difficult position. If they have suggestions to make about RBM operations, or matters that they would like to see changed, they have no avenues other than a friendly chat with the RBM manager. There is no forum in which difficult issues can be collectively resolved to the satisfaction of all core partners.

The periodic Partners’ Meetings do not substitute for a formal governance structure. They are not decision-making occasions; membership rights at Partners’ Meetings are ill-defined; and the roster of those who attend changes from meeting to meeting. The Partners’ Meetings certainly provide an opportunity to raise issues and propose solutions, but partners leave the table with no clarity concerning what precisely was agreed and what steps will now be taken by the Secretariat.

Private sector

RBM has given considerable importance to private sector participation in the Partnership. This participation has mainly involved large corporations and either research and development projects or donations in-kind. For example, Exxon has recently agreed to provide nets and treatment to families living within a certain distance of the gas pipeline under construction in Cameroon. Similarly, important collaborations are underway with the pharmaceutical industry concerning the development of new combination therapies and with other industries concerning long-lasting treated nets. This emphasis overlooks an equally important role of the private sector in small-scale production and service delivery at the country level. The External Evaluation Team found little evidence that the Secretariat was sufficiently aware of this potential or sufficiently active in promoting these opportunities at the country level.

Technical Support Networks

In the original design of RBM in 1998, it was envisaged that Resource Networks would be created. There were to be two kinds of Resource Networks: networks that provided direct support to control operations and networks that addressed specific technical issues that are critical for control policy. In the first category, the following specific Resource Networks were envisaged:

- needs assessment and intervention at district and national level;
- prevention and control of malaria epidemics; and
- malaria control in complex emergencies.

In the second category, the following networks were outlined:

- improving quality of care in the home;
- quality and provision of anti-malarials at the local level;
- implementation of insecticide impregnated bednet programmes;
- geographical mapping of malaria and health care;
- financing, economics and sector-wide approaches; and
- monitoring of resistance (drugs, insecticides).

In one early formulation it was envisaged that malarious countries would be given budgets of approximately \$200,000 in order to purchase support from the Resource Networks.

The concept of Resource Networks gradually changed into the concept of Technical Support Networks (TSNs). These TSNs are seen by most partners as performing poorly, and there is uncertainty concerning their role, organization and precise purpose. Only four TSNs are active; those on complex emergencies, epidemic control, drugs and insecticide-treated nets. The TSNs have merged, or been unclear about, the distinct roles of standard setting and direct support to countries. In practice, they have concentrated more on the former, and may be poorly equipped for the latter.

Technical support is needed not only by countries but also by partners and agencies that are assisting countries. Most partners cannot mobilize the in-house expertise, such as that embodied within WHO, and need assistance in guiding their staff concerning the latest and most appropriate technical approaches.

It has also been emphasized that the technical support needs of RBM include not only traditional areas in malariology and public health, but, increasingly, skills in social marketing, management, strategic planning and financing.

2.2.2 The Country Level

The External Evaluation Team found that the RBM impact in Phase I at the country level has been suboptimal, with a few notable exceptions. Where progress is taking place, it is generally the case that it had begun prior to RBM. It seemed that global and regional processes had had little impact on national malaria programmes, overall, at least in countries visited by the Evaluation Team. This section provides examples of under-performance observed at the country level. Supporting evidence in the form of telling quotations from the telephone interview survey (Green, 2002) commissioned by 'core' RBM partners is presented in Box 3.

Low priority

It was not possible to assess the situation across all of Africa in the brief amount of time available to the Evaluation Team, but in the two African countries visited, malaria is still afforded a shockingly low priority within the national government and the health sector as a whole. In Tanzania, a country where RBM has been active relative to many other countries in the region, the malaria control programme is located in offices far outside the centre of town.

The office has only one phone line, shared by all staff for phone calls, fax and internet use. It is inadequately staffed and is located well down the organizational hierarchy of the Ministry of Health. Not only do senior officials in the Ministry of Finance and the Prime Minister's Office not give priority to malaria or malaria control, but this is also true of senior officials in the Ministry of Health. Their attitudes are a mixture of 'we have other priorities' and 'there is not a great deal that we can do about this anyway'. This represents a significant failure of RBM to get across the message that:

- malaria is the leading cause of death of children under five in Tanzania;
- there are effective and tested interventions to reduce this mortality; and
- a good deal of the research that underpins these interventions was conducted in Tanzania.

Box 3 Quotes from the Green Report

The following is a selection of quotes drawn from the Report of RBM Stakeholder Interviews¹ (2002) which were consistent with the Evaluation Team's findings of RBM's progress at country level during Phase 1. Countries that participated in the study included: Malawi, Kenya, Zambia, Eritrea, Burkina Faso, India and Bolivia. The quotes were obtained from interviews with Ministry of Health Malaria Control Programme staff, other senior Ministry of Health personnel, Ministerial staff from other sectors (e.g. Finance, Planning, Agriculture), bilateral and multilateral agencies, NGOs, private sector organizations, and research institutes.

“Advocacy by RBM at country level has not translated into high level political commitment to malaria.”

“RBM is not strong here. We don't have very active group members, and meetings are sparsely attended. In contrast, there's an Interagency Co-ordination Committee for Child Immunization which is strong and more committed.”

“RBM did lots of planning for malaria. The perception is that this took us backwards. NMCP staff could have attended the regular forums between donors and government – the WHO representative could have done a lot more to help on coordination. Development of the Malaria Strategy took place in isolation ... Zambia has a great number of SWAps meetings – RBM has largely happened outside these. At district level RBM took a vertical approach in its pilot districts – undermining health reforms.”

“Following a visit to India by senior RBM Cabinet Project staff two years ago it took six to eight months to produce the meeting minutes, and there was no follow-up meeting.”

“There's no private sector involvement in RBM activities in Malawi – NMCP staff simply don't have the capacity to engage with them. They've been moving full steam ahead with all the RBM documentation which has stretched their capacity to the full ...”

“It's taken two years to develop the plan and budget, but no donor has said that they are ready to work with the initiative ... where's the new money? There was a huge drive by government to finish the document and put a budget on it ... The budgeted plan is a white elephant.”

“With the issue of combination therapy, there's a sense that people are having to find their own way. Issues of pros, cons and affordability all have to be established in-country. There's been no technical support on this issue provided by AFRO – and AFRO's position on key issues such as these is not always clear. What are the costs associated with a move towards combination therapy? What are the steps in budgeting for these drugs within the essential drugs package? We sense that Geneva is trying to establish a position – but that parts of AFRO don't buy into combination therapy. With key technical issues such as these RBM could give a stronger lead.”

“TA [technical assistance] tends to come in short bursts, and is not always demand-led.”

¹ The full report appears at page G-1 towards the end of this document.

In Cameroon, the malaria control programme continues to reside at the very bottom of the organizational chart of the Ministry of Health. In contrast to the AIDS unit, which now reports directly to the Minister, the malaria unit must go through five layers of bureaucracy to get approval for any plan of action. There is little sense that malaria is a priority for the government of Cameroon or that the country is prepared to mobilize a significant response to this foremost killer of Cameroonian children.

Disconnect

The External Evaluation Team found that RBM activities on the ground tend to be disassociated from the major health sector planning processes and budgetary cycles of the countries. This disconnect takes several forms.

First is the disconnect between the planning and organization of National Malaria Control Programmes (NMCPs) and the reforms and changes that are underway in the health sector more broadly. A frequent complaint among RBM staff was that previously strong NMCPs had been damaged by aspects of health sector reform, and particularly by too rapid and/or too great decentralization. It is no doubt true that decentralization has been ill-considered in some countries and has done damage to health service delivery generally (examples might include the Philippines and Papua New Guinea). However, it is necessary for RBM to engage in this process and ensure that those central features that are essential for effective malaria control are maintained and strengthened. Similar observations apply regarding the need for RBM's participation in planning and implementation of Sector Wide Approaches (SWAs), and its engagement with private providers.

A second dimension of disconnect concerns the linkages between RBM and other programmes with overlapping objectives and delivery opportunities. The most important of these are probably the links between RBM and Integrated Management of Childhood Illness (IMCI), RBM and any programme which reaches pregnant women, and possibly RBM and the Expanded Programme on Immunization (EPI). At the global and regional levels of WHO, these linkages are given emphasis.¹⁰ These linkages are also being actively promoted in Cambodia. Elsewhere, the linkages are less apparent and there seems to be little energy devoted to seeking out and exploiting the synergies among programmes.¹¹

A third dimension of disconnect, which was of particular importance, concerns financing arrangements. On the one hand, the RBM Secretariat and AFRO have worked with countries to develop CSPs. These CSPs contain a statement of resource requirements. It is typically the case that these resource requirements are unconnected to the ongoing financing and budgetary processes in the country concerned. They are sometimes unrealistically large, and they are seldom linked clearly to what may be practically feasible in the medium term.

These examples of disconnect are perhaps not surprising given that WHO country offices themselves are not always fully plugged into the broader policy and finance debates in the countries in which they work. This problem is further compounded by the tendency in Africa to rely on National Programme Officers (NPOs) to lead RBM activities at the country level. NPOs are, by definition, local appointees. They are typically insufficiently senior to engage in the high level advocacy work required to bring malaria to the top of the health and development

¹⁰ See, for example: *Making an Impact on Child Health: A Framework for Scaling-up RBM and IMCI Implementation in Countries*. World Health Organization Regional Office for Africa, January 2001.

¹¹ Several Partners indicated that they felt that 'good progress' has been achieved in Ghana, Malawi and Uganda in recent years. Others also mentioned Senegal and Zambia. Unfortunately, the Evaluation Team did not visit these countries and did not have access to any secondary materials that could have corroborated these claims.

agendas, and to connect it to broader policy formulation and decision making. Also, since NPOs are appointed by the WHO Representatives (WRs), they may be called upon to perform tasks that are unrelated to malaria control.

CSPs

The idea behind Country Strategic Plans (CSPs) is sound. CSPs provide the vehicle for governments, in collaboration with WHO, to identify a plan of action for malaria control activities over the medium term (often, a period of three to five years). This has been a useful means to encourage more focused and strategic thinking and to get governments, especially in Africa, to move away from old strategies that are not universally effective (such as drainage and indoor spraying) and toward the evidence-based strategies promoted by RBM.

CSPs are also treated by AFRO and the Secretariat as an important vehicle for integrating malaria control into the broader health sector, fund-raising and building partnerships. A recent document, *Country Strategies and Resource Requirements* (RBM, 2001), explains, “CSPs are based on a rigorous analysis of the local situation, cost-effective interventions, partnerships for implementation, integration of malaria control into health sector development and realistic estimates of current resource gaps and the implementation capacity of the country partnerships.”

In practice, however, CSPs have not lived up to this high expectation.

- ❑ In Cameroon, partners were not involved in the development of the CSP, although they will be asked to attend a meeting to approve the document, and to provide financial support to it.
- ❑ Although the CSPs identify the broad technical strategies to be employed within the country, they rarely describe how these strategies will be made operational. For example, critical elements such as use of subsidies, choice of distribution channels, or role of communication approaches such as social marketing, are not described when setting out the ‘strategy’ of improving net coverage or access to essential drugs.
- ❑ A few CSPs, but not all, discuss the importance of integrating RBM activities with IMCI, reproductive health and other health system activity, but do not describe a process for making this happen.
- ❑ A few CSPs discuss the importance of integrating RBM with the broader development processes, such as Poverty Reduction Strategy Papers (PRSPs), but fail to outline how this is to be achieved in practice.

The Secretariat’s approach (not necessarily supported by other RBM partners) has been to call a ‘pledging meeting’ following the completion of the CSP. Partners are asked to pledge their financial support for the plan. This process is not compatible with other funding modalities, such as SWAp funding baskets or PRSP/Debt Initiative for Heavily Indebted Poor Countries (HIPC) related processes. Unrealistic RBM funding expectations can be generated and monies available from existing mechanisms can remain unutilized (Box 4).

Box 4 Unspent Debt Relief in Cameroon

The Cameroon HIPC agreement came into place in mid-2000, making available \$86 million per year of new government expenditure. In the first three years, \$32 million were allocated to health. These funds were for HIV/AIDS, malaria, immunization, TB, essentials drugs, health staff, and health sector strengthening in 50 districts. If these funds were all spent, the health sector expenditures by the government per capita per year would rise from \$0.8 in 2001 to \$1.7 in 2003, thus having a massive impact on the health sector, from which malaria control would also benefit. In practice, almost none of this money has been spent.

The malaria component of the HIPC agreement requires the expenditure of \$2.6 million during 2000-2003 on:

- increased use of ITNs by pregnant women and children;
- increased IPT; and
- improved treatment generally.

None of this money has so far been spent, and there is a lack of clarity in the Ministry of Health, WHO, and other partners concerning how to set about releasing these funds and using them effectively.

Lack of innovation

At least in the African context, the Evaluation Team discovered little in the way of innovative approaches inspired by RBM at the country level. For example, there was a lack of innovation regarding programmatic strategies to deliver the priority RBM interventions. Also, despite evidence that over 50 percent of spending on health is paid for out-of-pocket by households, little has been done to work with local, private sector providers to increase access to or the quality of their services. Similarly, despite evidence of major human resources constraints to scaling-up health programmes within the public sector, little has been done to address this problem creatively – for example, by contracting out.

Box 5 Private Nets in Tanzania

A decade ago, bednets in Tanzania were available in a few shops in big towns for \$10 to \$15 each.

Today, three factories produce 3 million nets per year. 1.5 million nets per year are sold on the retail market in Tanzania. They are widely available in small stores and are even sold door-to-door. Prices are under \$4 per net. Bednet usage is rising.

Population	Percent using	
	Any Net	Treated Net
Children < 5 yrs	46	11
Pregnant women	36	8
All	40	N/A

The big challenge is to increase coverage with nets and greatly increase the use of insecticide impregnation. A switch to the manufacture and sale of long-lasting nets may be the best way to achieve this.

Private sector

In Asian countries, it is common for between 70 and 90 percent of all health care to be financed by out-of-pocket expenditures by households and to be provided by doctors and clinics that are not part of the public health care infrastructure. In Africa, this proportion is commonly around 50 to 60 percent and is growing in a number of countries, such as Tanzania. It is essential that NMCPs focus on the need to improve access to and quality of both preventive and curative services delivered through the private sector. The NMCP in Cambodia is doing this. In Tanzania the private sector has revolutionized the availability and use of bednets (Box 5).

A related issue is the inability of public services to deliver all that is required in the field of malaria. There is an urgent need to contract out to private sector suppliers and providers. In many countries, and especially Southern Africa, there is a reluctance to go down this road or to allocate significant public finance to private provision. This attitude requires a sea-change. Without extensive use of private providers, financed both through public and private channels, malaria will not be rolled back.¹²

Prioritization and selectivity

There are 50 malarious countries in Africa and 130 worldwide. It is impossible in practice for RBM to support effectively scaled-up malaria control activity in all of these countries. In addition, some of these countries are simply not ready to go to the next level in their malaria control activities. This may be because of government failure, economic crisis, civil unrest, war or a variety of other reasons. There have been several attempts, both in WHO and among RBM partners, to define a list of focus or spotlight countries and to agree on a heightened level of activity in those countries.¹³ None of these discussions have gelled into a clear strategy or plan of action. There is confusion about focus or spotlight countries among the partners and within WHO.

The substantial majority of people interviewed by the Evaluation Team agreed that country selectivity or country focus was essential in practice. Without this, there was thought to be a real prospect that, in five years time, no high-transmission African country would be able to reliably demonstrate a significant decrease in the burden of malaria. Such an outcome would be a massive setback for RBM and for international efforts to control infectious disease in general. There was consensus that this outcome must be avoided at all costs.

Report of RBM stakeholder interviews

As mentioned in Section 1.2, a parallel evaluation was conducted (Green, 2002) of RBM stakeholder opinions, with special emphasis on the country level. Table 3 presents the ten main messages from this report. The countries that were included in this study were:

- | | |
|---------------------------------------|----------------------------------|
| <input type="checkbox"/> Bolivia | <input type="checkbox"/> Kenya |
| <input type="checkbox"/> Burkina Faso | <input type="checkbox"/> Malawi |
| <input type="checkbox"/> Eritrea | <input type="checkbox"/> Zambia. |
| <input type="checkbox"/> India | |

¹² It should be noted that, in many OECD countries, public finance of private provision is the norm in health care delivery. This private provision embraces both not-for-profit and for-profit providers. Such systems are commonplace, even in countries that emphasize social solidarity and equity in health care, such as the Netherlands.

¹³ At the 2nd meeting of the RBM Partnership in Harare in 1999, eleven countries in Africa were identified as spotlight countries. These were Angola, Congo, Ethiopia, Kenya, Mali, Mauritania, Mozambique, Senegal, Tanzania, Uganda and Zambia. The World Bank committed to playing a particularly strong role in Ethiopia, Mali, Mauritania, Mozambique, Senegal, Tanzania and Uganda. The focused effort on these spotlight countries was not sustained, although RBM Partners seemed to be unable to provide a consistent explanation for why this was so.

Table 3
Main Messages from the Study of RBM Stakeholder Opinions at Country Level¹

Message 1	Partnerships at country level will be difficult to sustain without adequate funding. RBM should use its leverage at global level and intensify its efforts to broker funds for country level activities.
Message 2	Mechanisms for funding NGOs as key RBM partners need to be identified.
Message 3	RBM needs to be better informed of the local health sector context, and to find ways to integrate with local-level processes. This will require changes in the RBM approach and in the skills of key RBM staff.
Message 4	To better support RBM partnerships at country level malaria focal points require a different skills-set. Strong management and leadership skills are required.
Message 5	To maintain political commitment to malaria at local level, sustained advocacy by RBM is required.
Message 6	A global focal point for RBM is required at country level – this could be UNICEF, WHO or World Bank.
Message 7	Founding partners at global level need to look for ways to operationalize at local level their global commitments to malaria.
Message 8	RBM needs to build ongoing relationships with individual countries rather than rely on short bursts of technical assistance.
Message 9	RBM technical teams need to include social scientists as well as biomedical experts to ensure that demand as well as supply side perspectives inform the RBM approach.
Message 10	More work needs to be done at country level to develop clear strategies for enhancing community mobilization.

¹ Green, C. (2002) *Report of RBM Stakeholder Interviews*. Department for International Development. (This full report appears at page G-1 towards the end of this document.)

A wide variety of stakeholders were interviewed in each country. Interestingly, despite the fact that there was no interaction whatsoever between the main Evaluation Team and Cathy Green, the ten messages are identical to findings reached by the Evaluation Team concerning the country level. In some respects, the findings of this separate study are uncannily similar; for example, Messages 4 and 6 concerning Country Champions and Message 8 concerning relations with countries. The consistency of the findings contained in these two reports, based on data collected independently, provides important validation.

Good practice in Cambodia

In Cambodia, one of the three countries visited by the Evaluation Team, RBM and malaria control were working strikingly better than seen elsewhere. Certainly, RBM in Cambodia will face many challenges in the years ahead, not the least of which will be how to move from a well-funded, centrally driven malaria control programme to one which is well integrated with the existing health care system, which is currently underdeveloped and not well funded. However, the Evaluation Team was nonetheless impressed by the momentum that RBM has generated. Specific examples of innovation and good practice in Cambodia are given in Box 6.

Box 6

Cambodia: Progress and Initiative

Cambodia is a very poor country (GNP of around \$300 per capita per year) with a population of 12 million. It has only recently emerged from decades of civil unrest and disruption, during which many people, especially the professional and educated, died. The pace, dynamism and innovation in the Cambodian NMCP are impressive. Malaria in Cambodia occurs mainly in the sparsely populated, forested hill-country on the borders with Thailand, Laos and Vietnam. Among the notable achievements of the Cambodian NMCP are:

- close linkages between operational research and programme design and delivery;
- emphasis on social marketing to encourage informed demand for drugs and bednets;
- a strong NMCP;
- effective malaria leadership and coordination provided by a Country Champion located in the WHO Office in Phnom Penh;
- successful efforts to work synergistically with other programmes, especially IMCI and EPI;
- pioneering and widespread use of antigen dipsticks for malaria diagnosis;
- pioneering use of new combination therapies (artesunate and mefloquine) with local blister packing facilities;
- vigorous ITN programme through public and private channels; and
- emphasis on provision of preventive, diagnostic and curative services through both the private and public sectors.

All this has been achieved in the context of weak government health infrastructure and very low (only 1% of GDP) public expenditures on health. No effective M&E system has yet been put in place and so it is not possible to accurately assess the impact.

The RBM partners of significance in Cambodia include WHO, the World Bank, the European Commission, DFID and USAID. The relationship between the EC and RBM could be much improved and the EC's long-term commitment to malaria control in Cambodia and the Mekong region is in doubt. UNICEF is not an active participant in RBM in Cambodia. WPRO is providing strong support. Partners other than WHO were not aware of RBM. There is a strong sense that the Cambodia programme predates RBM and would be successful whether RBM existed or not. No RBM staff member from WHO Geneva had ever visited Cambodia until one accompanied the Evaluation Team in January 2002. Availability of funding through WHO has helped WHO to drive the programme and reinforced its role as the leading partner. Future challenges include strengthening the delivery infrastructure, ensuring quality in the private sector, improving donor commitment and coordination, suppressing counterfeit drugs, and achieving measurable reductions in malaria.

2.3 The Role and Performance of Partners

It was striking to the Evaluation Team that, in general, partners were dissatisfied with the performance of other partners. In every case it was stated that other partners had not fully lived up to expectations or to the commitments that they had made. Some partners questioned the value-added of RBM, expressing doubt that the returns on their investments in terms of time and resources were higher than would have resulted if the partners had been operating independently. In general, the Evaluation Team concluded that the criticisms of partners by other partners were thoughtful and well founded. This section lays out some of these criticisms and offers an independent assessment.

2.3.1 WHO

The External Evaluation Team encountered more criticism of WHO than of other partners. This is partly because WHO has taken upon itself the major responsibility for the success of RBM, and the lack of structure and governance makes it easy for failure to be laid at the door of WHO rather than other partners. It is important to keep this in mind when considering the comments about WHO, and also to keep in mind that there were substantial criticisms of other core partners.

WHO's functions in RBM during Phase I have included both the staffing and housing of the Secretariat for the RBM Partnership and WHO's role as a partner within the Partnership. The report comments first on the Secretariat, second on technical leadership, this being WHO's main role as a partner, and subsequently on several other issues.

The Secretariat

Since the inception of RBM, the Secretariat has been located within WHO headquarters. Initially, it had a Cabinet Project status and reported directly to the Director-General. More recently, it has been subsumed under the cluster dealing with communicable diseases. Some of the main shortcomings of the Secretariat have already been mentioned. It reports to the RBM Manager (who reports to the Executive Director of the Communicable Diseases cluster) and not to the Partnership. It is staffed by WHO employees. It used to contain one World Bank secondee, and now contains secondees from USAID and Centers for Disease Control and Prevention (CDC), but none from other RBM partners. The Secretariat is, inevitably, responsive to WHO management rather than to the Partnership.

The major shortcoming of the Secretariat has been the lack of adequate leadership of the RBM Partnership as a whole. If such leadership had been provided, a number of the deficiencies described in this chapter of the report would have been avoided or reduced. The Secretariat has not been particularly effective in coordinating and orchestrating activities within WHO, for example between WHO headquarters and AFRO. It has been even less successful in stimulating and coordinating activity among the partners as a whole. Partners do not feel that the Secretariat keeps them well informed of RBM activities or involves them at crucial stages in policy formulation and decision making. The Evaluation Team found that the Secretariat had not been proactive in bringing in important new partners, such as the European Commission. The Secretariat clearly has not been proactive in identifying and resolving the discontent that was so apparent to the Evaluation Team in its discussions with the partners.

Technical leadership

Partners unanimously expressed the view that WHO should do one thing really well as its major contribution to the RBM Partnership – namely, provide technical support and leadership in the area of malaria control. It was also the general opinion that WHO has not fully lived up to this expectation.

Malaria is an exceptionally complex disease. Technical leadership in malaria control is demanding not only because of these complexities but also because, mainly due to evolving resistance, the correct technical advice changes rapidly. Synthesizing, interpreting and disseminating the latest evidence on ITNs, on prophylaxis and treatment in pregnancy, on use of dipsticks rather than microscopy, on choice of first-line and second-line drugs, and on several other matters is a large task.

In the areas of prophylaxis and treatment for pregnant women, many of those interviewed thought that WHO had been slow to take leadership in this area and that USAID and CDC have had to step in to fill the gap.¹⁴ The most complex and contentious of all arenas is that of drug policy. The gathering and interpretation of data on the relative efficacy of existing and new drugs is complex in itself. Translating this evidence into viable national drug policies which fully take into account such issues as cost, supply and compliance, is a further major difficulty. These decisions are all played out in a political and economic context in which countries are conservative and reluctant to change from long-established and cheap first-line therapies (especially chloroquine) to alternatives that are

¹⁴ Evidence on the desirability of preventing or treating malaria in pregnancy continues to grow. In malaria-endemic areas of Africa, one quarter of pregnant women may harbour placental malaria and babies born to these women are twice as likely to have low birth weight ($\leq 2500\text{g}$) and three times more likely to die in the first year of life (Guyatt and Snow, 2001).

new, little-known and possibly much more expensive and/or complex (as in the case of combination therapy).

It is not uncommon for countries to receive conflicting advice on drug policy, both from their own national experts and from international organizations that are working with them. The Evaluation Team also had difficulty sorting out which partners had advocated what in selected countries. In Zambia several partners reportedly had been working with government officials to encourage a switch from chloroquine to sulfadoxine/pyrimethamine (SP). These efforts became confused by a parallel but uncoordinated effort on the part of WHO to introduce a new and different first-line treatment. Similar confusion persists over the drug policy situation in Zanzibar, and is further complicated by the lack of coordination with mainland Tanzania. The inability of partners to coordinate creates a major strain on governments. An illustration of the types of disagreements that have arisen is presented in Annex C.

Box 7 Anti-Malarial Drugs Made Simple

Countries are transitioning from chloroquine to SP (sulfadoxine-pyrimethamine or Fansidar) to combination therapy (CT), or artemisinin-based combination therapy (ACT). Countries may move from chloroquine to SP to CT to ACT, or from chloroquine to CT to ACT, or from chloroquine to ACT. Artemisinin comes from the Chinese bush qinghao (sweet wormwood) and its derivatives are arthemeter and artesunate.

Common examples of CT include:

- amodiaquine plus SP;
- atovaquone plus proguanil (Malarone®).

Common examples of ACT include:

- arthemeter/lumefantrine (Coartem®);
- artesunate plus amodiaquine;
- artesunate plus mefloquine;
- artesunate plus SP.

Other combinations are in the pipeline or under trial. Complex issues concerning safety for young children, safety for pregnant and breastfeeding mothers, availability in suppository form, cost, availability and packaging affect the choices among these first-line drugs. ACT currently costs about \$1 per treatment more than CT. For Kenya to change from amodiaquine plus SP to amodiaquine plus artesunate would cost about \$6 million per year (MSF, 2002). In practice, cost-effectiveness is more important than cost. SP is five times more cost-effective than chloroquine in Kenya, Uganda and South Africa (given current resistance levels) despite being over ten times more expensive (Wilkins *et al*, 2002).

In some regions, countries themselves have got together to try to coordinate evidence and policy in the difficult arena of drug choice. For example, Burundi, Kenya, Tanzania, Rwanda and Uganda have formed the East African Network for Monitoring Anti-malarial Treatment (EANMAT). Funded by DFID, EANMAT is proving to be an effective mechanism to assist this group of countries to formulate and implement appropriate policies. Similarly, the South-East African Combination Anti-malarial Therapy (SEACAT) has been created by Mozambique, South Africa and Swaziland (with inputs from the London School of Hygiene & Tropical Medicine and CDC) to study the effect of combination therapy on resistance. SEACAT is supported by the Special Programme for Research and Training in Tropical Diseases (TDR). Box 7 provides further information about the complex arena of anti-malarial drugs.

Other partners, and most individuals interviewed within WHO, agreed that WHO should be constantly at the frontier of the rapidly evolving technical issues that underpin malaria control. While some strong contributions by WHO in some areas are recognized, overall it is thought that WHO's contribution falls short of the technical leadership expected and required. It is emphasized by many commentators that this technical leadership cannot be achieved by the technical experts in WHO headquarters and WHO Regional Offices alone. It should result from

a process of interaction between those technical experts and the worldwide community of scientists and researchers who are knowledgeable about various aspects of malaria. It is the leadership of a technical consensus, and the effective articulation and wide dissemination of that consensus, that are the key functions of WHO.¹⁵

Regional Offices

The Evaluation Team did not visit every Regional Office or every region. In particular, the Evaluation Team had no contact with the Regional Office for the Eastern Mediterranean (EMRO), and only minor contact with the South-East Asia Regional Office (SEARO). Snapshots of malaria in some WHO regions are given in Boxes 8-11.

Box 8 Malaria in the Eastern Mediterranean Region

The 23 countries in EMRO are divided into four groups in relation to malaria.

- ❑ Group 1, comprising nine countries and seven percent of the region's population, in which malaria has been eradicated. Interestingly the dates of eradication range from 1953 (Cyprus) to 1979 (Kuwait). No countries in the EMR have been declared malaria-free in the last 23 years.
- ❑ Group 2, comprising five countries and 24 percent of the region's population, in which malaria is under control and elimination is targeted.
- ❑ Group 3, comprising four countries and 53 percent of the region's population, in which there is moderate endemicity of malaria, fairly well-established control programmes, and either stable or declining malaria burden.
- ❑ Group 4, comprising Afghanistan, Djibouti, Somalia, Sudan and Yemen, with 16 percent of the region's population, in which there is a severe malaria problem, intense transmission, and wholly inadequate control programmes. 95 percent of malaria burden in the EMR occurs in these countries. Several of them are the sites of complex emergencies.

The presence in the region of nine countries which have eliminated malaria (including three large countries: Jordan, Libya and Tunisia), and five countries which could eliminate malaria in the foreseeable future, gives confidence that further substantial progress can be made in the EMR. While some countries, such as Afghanistan and Sudan, will prove extremely challenging, others should be able to make rapid progress. For example, there is absolutely no reason why 11 million people in Saudi Arabia, out of a total population of 19 million, should live in malaria-endemic areas.

The Evaluation Team was especially impressed by the Pan American Health Organization (PAHO) and the Western Pacific Region (WPRO), with their competent and energetic professionals, good strategic grasp, and close relations with the research and researchers in their regions. PAHO and WPRO also enjoy excellent relations with the countries in their regions. In Cambodia WHO staff, other donors and the government were pleased with the support that they were receiving from WPRO. It is also noteworthy that in these regions communications flow easily between WHO country offices and the Regional Office, and that technical advice is received in a timely and effective manner.

The Evaluation Team did not have sufficient contact with SEARO to form a reasoned judgment and visited no countries in the SEARO region. However, the evidence that was available suggests that SEARO lacks the critical mass of expertise that would allow it to provide strong leadership for RBM in the region. The Team was informed that there were only three RBM-focused staff in SEARO, and that they were unable to service adequately the needs of the many endemic

¹⁵ There are good historical examples of WHO playing this role effectively, even when having only a small number of technical experts within WHO. For example, the technical leadership in diarrhoeal disease control during the 1980s is an illustration of good practice in this arena. It requires a small number of highly competent people within WHO interacting with a substantial network of expertise located worldwide.

countries in their region, including two very large countries with a substantial malaria problem – namely India and Indonesia (see Annex D and Box 10).

Box 9 **Malaria in the European Region**

Malaria was eradicated from all countries in the region by the early 1960s except for Azerbaijan, Tajikistan and Turkey. Since the early 1990s, however, the malaria situation in the European Region has deteriorated greatly owing to political and economic instability. Major epidemics of malaria have recently occurred in Azerbaijan, Tajikistan and Turkey. Smaller epidemics have occurred in Armenia, Georgia and Turkmenistan. Sporadic cases of malaria occur in Bulgaria, Kazakhstan, Kyrgyzstan, Moldova, Russia and Uzbekistan. Worryingly, while most European malaria is caused by *P. vivax*, *P. falciparum* has been rapidly increasing, particularly in Tajikistan. Special problems faced in the European region include:

- the concentration of intense transmission in areas with poor access and health facilities, for example the Afghan/Tajik border;
- poor capacity for early diagnosis and prompt treatment;
- the exophilic behaviour of the principle vector, *Anopheles pulcherrimus*;
- shortages of insecticides and limited use of anti-larval measures;
- poor malaria surveillance systems; and
- low level of community knowledge and skill concerning malaria prevention.

The situation is greatly complicated by the existence of complex emergencies in a number of the most affected countries. On the other hand, the previous eradication of malaria from all except three countries gives hope that this historical situation can be re-established, and a target has been set to interrupt *P. falciparum* malaria transmission by 2005, with the ultimate goal of eradicating malaria from the region by 2010.

Box 10 **Malaria in the South-East Asian Region**

All ten countries in the South-East Asia Regional Office (SEARO) of WHO have endemic malaria. The problem ranges from minor, as in North Korea, to extremely serious, as in Irian Jaya province in Indonesia. Because of the large population in the region, especially in Indonesia and India, the number of malaria cases is very large. There are no comprehensive estimates of the size of the malaria burden in the SEARO. More than half of all mortality cases probably occur in India. In several countries in the SEARO, malaria is particularly a problem of ethnic minorities living in border areas, and/or forested hill-country. These populations tend to be poor and difficult to reach.

Resistance to the older malaria drugs, and some of the newer ones, is particularly commonplace in Thailand and its neighbours. There do not appear to be effective working relationships among SEARO countries to exchange information on drug resistance and work together on drug policy. Counterfeit drugs are a particular problem in the region, India being an important source. Equally, the region is fortunate to have the technical capacity to manufacture anti-malarial drugs in large quantities, including new and more sophisticated drugs.

The concentration of malaria in border areas raises the need for cross-border collaboration, which is sometimes made difficult by hostilities and political tensions. The Mekong Project and the Thai/Myanmar Border Health Collaboration are examples of efforts to tackle malaria on a multi-country basis.

SEARO has launched an intensified RBM effort in 24 districts in seven countries in the region with a total population of 16 million people. This pilot district project intends to demonstrate effective implementation of RBM strategies at the local level.

Clearly, with respect to the overall success of RBM, AFRO is the Regional Office of greatest importance. The picture here appears to be mixed. On the one hand, the Evaluation Team was impressed by the high quality and dedication of the AFRO staff and of the staff in the Southern African Malaria Control team (SAMC). The effectiveness of these professionals is constrained, however, by the system in which they work and by deficiencies in their relationships with WHO headquarters.

Firstly, both the culture and the management style leave much to be desired. A politicized and inflexible bureaucracy impedes the ability of AFRO staff to provide effective support to their client countries. The art of 'getting things done' is hampered by restrictions and regulations. Of greatest concern is the fact that despite being stretched to capacity, AFRO staff spend much of their time in reactive rather than proactive mode. They respond to country requests on an *ad hoc* basis and consequently are unable to sustain an intensive and ongoing programme of support to a selected list of countries. Moreover, AFRO staff are not assigned to specific countries, which further impedes follow up and the tracking of country progress.

This situation also leads to a 'mission mentality'. When staff were asked about the state of RBM in a particular country, the replies typically concerned the situation two or more years previously, when an AFRO staff person had last visited that country. Instead of a close ongoing relationship between AFRO RBM staff and their colleagues and counterparts in particular countries, more typically there is an intermittent relationship based on visits, and an absence of sustained and long-term partnership. RBM staff in AFRO were well aware of the advantages of staying closely connected with the ongoing policy and operational arena in particular countries. They felt, however, that the pressures on them prevented this from occurring. In addition to the need to react to country requests on an *ad hoc* basis, they were also kept busy with travel to Geneva and other countries to attend meetings, with writing reports and guidelines, and with administrative duties that had little bearing on providing effective support to countries. SAMC appeared to have a closer ongoing relationship with the ten countries in its sub-region.

This problem is compounded by rules that obstruct effective communication. It is difficult, for example, for an RBM staff member in AFRO to communicate regularly and effectively by email with the NPO or the Head of the NMCP in a particular country. Communications (usually in the form of letters) pass upwards in AFRO to the Regional Director, across to the WHO representative in the country concerned and then downwards to the NPO, or across to the Minister of Health and down (in some cases way down) to the NMCP. This process can take many weeks. This cumbersome way of interacting was in strong contrast with what was seen in WPRO, indicating that organizing things in this way is not a requirement of the WHO system.

There are also clear deficiencies in the relationships between WHO in Geneva and AFRO, which stem from a lack of clarity about who is responsible for what. The 'One WHO' policy of the Director-General is not working in the case of RBM. Roles and responsibilities are ill-defined between WHO headquarters and AFRO, and it seems to be more a matter of accident and availability of staff than of policy that determines who takes up which task and who responds to which need.

AFRO has created several sub-regional Inter-Country Teams. Only SAMC, dealing with ten countries in Southern Africa, is fully operational. The Evaluation Team was impressed by a presentation it received from the head of SAMC. It seems that, at least in principle, these Inter-Country Teams, being closer to countries and dealing with a smaller group of countries, can provide effective and consistent country support. In practice, however, we suspect that this potential is to some degree impeded by the cultural and bureaucratic problems referred to above. In addition, it must be noted that several key positions within SAMC are vacant.

Box 11

Malaria in the Western Pacific Region

Nine countries in the WPRO have a moderate to severe malaria problem. These are:

- | | |
|---|--|
| <input type="checkbox"/> Cambodia | <input type="checkbox"/> Philippines |
| <input type="checkbox"/> China | <input type="checkbox"/> Solomon Islands |
| <input type="checkbox"/> Laos | <input type="checkbox"/> Vanuatu |
| <input type="checkbox"/> Malaysia | <input type="checkbox"/> Vietnam |
| <input type="checkbox"/> Papua New Guinea | |

The three countries of Melanesia – Papua New Guinea, Solomon Islands and Vanuatu – have malaria transmission as intense as that found in Africa. Some features of malaria in the region are:

- widespread drug resistance to chloroquine, SP, and increasingly mefloquine;
- problems with counterfeit artesunate and mefloquine;
- antigen dipsticks for diagnosis are becoming widely used;
- decentralization of health services has seriously undermined NMCPs in Papua New Guinea, the Philippines and Vanuatu; and
- in Papua New Guinea and the Solomon Islands the malaria situation is much worse than it was two decades ago because of poor economic performance and civil unrest.

WPRO collaborates with SEARO on the Mekong Roll Back Malaria Initiative which covers Cambodia, China, Myanmar, Laos, Thailand and Vietnam. WPRO provides strong support to the countries in its region and WHO is the leading partner in RBM. Partner coordination in the region is weak, with some partners or potential partners either not joining or not collaborating. There is a strong desire in the region for greater participation in RBM by Japan and UNICEF. There are concerns about the sustainability of finance as more expensive combination therapies become more widely used.

The Asian Collaborative Training Network for Malaria (ACTMalaria) is active in the region. ActMalaria was created in 1996 as an intercountry initiative by Bangladesh, Cambodia, China (Yunnan Province), Indonesia, Lao PDR, Malaysia, Myanmar, Thailand and Vietnam to collect, develop and disseminate training materials and provide training courses in southeast Asia and the Mekong valley, and to improve communication between these countries on malaria control problems affecting their common borders.

The region benefits from having some of the most innovative NMCPs in the world (Cambodia and Vietnam), and also for being the source of research and production of important new anti-malarial drugs (China and Vietnam).

Finally, there are many missed opportunities for sharing experience and expertise from the region with others. RBM staff from the region have not acted as consultants elsewhere and the visit of the Evaluation Team was the first time RBM staff from WHO Geneva had been to Cambodia since the creation of RBM in 1998.

Country level

WHO's performance at the country level on RBM is similar to WHO's performance at the country level in general – in a word, patchy. The quality, competence, energy and effectiveness of WRs and their teams vary greatly and this variation largely determines their effectiveness in malaria and other matters. Where the WR is knowledgeable and committed, and has a sufficiently senior staff member who is also knowledgeable, committed and devoted largely to malaria, the WHO role is effective. Where this is not the case, the WHO role is less effective. WHO AFRO has now appointed 28 NPOs in 26 countries. This is a good idea in principle, and these national officers can, and in some cases do, assist the RBM effort at the country level. They are not, however, sufficiently senior and experienced to play a major advocacy and coordinating role. Where international staff with the right personal attributes and seniority are appointed to an RBM role in the WHO country office, as in Cambodia, things go well and WHO's leadership is apparent.

2.3.2 The World Bank

The World Bank was a founding partner of RBM (see Annex A). It enthusiastically encouraged the new prominence given to malaria by WHO headquarters and WHO AFRO, and the creation of the RBM Partnership and the Cabinet Project. The World Bank was an active participant in RBM activities, especially in the early years. The World Bank led or participated in joint country missions in 1998 and 1999 (to Ethiopia, Kenya, Malawi, Mozambique, Tanzania and Uganda) which initiated the process of the development of CSPs. Early in RBM, the Bank had a small Malaria Team located in its Africa region focusing on RBM. One member of this team was subsequently seconded to WHO to work in the RBM Partnership, but she soon left this position and a replacement was not made.

At the Abuja Summit in April 2000, the World Bank made a headline-grabbing pledge of US\$300-\$500 million towards the control of malaria in Africa. It was not clear whether this was an annual figure or over a certain period of time. The World Bank's Vice-President who led the Bank Team to the Abuja Summit stated, "the resources can be deployed to increase the fight against malaria but there has to be an explicit, country driven, country owned, and country prioritization in order to win that fight." In practice, the pledge has not translated into large increases in actual lending or disbursement by the Bank to countries for efforts against malaria.¹⁶ Following the summit, the Vice-Presidents for Africa and Human Development wrote jointly to all Bank staff working in the African Region calling for increased priority to be given to malaria in national policy dialogues. The Vice-Presidents also called specifically for the inclusion of malaria targets as indicators for HIPC completion points and increased lending for malaria wherever the national absorptive capacity made this possible.

A review of World Bank International Development Association (IDA) commitments to malaria control during the 1990s revealed total commitments of \$477 million, out of total Health, Nutrition and Population (HNP) commitments of \$11 billion over the same period. About one quarter of all Bank HNP projects had malaria components or malaria activities. The large IDA malaria project in India, approved in Fiscal Year 1997, accounts for one third of total malaria commitments. Concerning malaria commitments by regions, nearly 40 percent of dollars are committed to the South Asian region, strongly influenced by the large India project, and only 16 percent to Africa. There are currently 45 active World Bank projects in over 30 countries which have malaria components or fund malaria activities.

The Bank's role

There is a clear consensus among other partners about the role they would like the World Bank to play. It is as follows:

- to raise the profile of malaria on the overall development agenda and in national priority setting;
- to bring the financing needs of RBM to the attention of Ministries of Finance;
- to ensure that PRSP and HIPC processes give appropriate weight to malaria, and that monies assigned for malaria are available for use in practice; and

¹⁶ This is similar to other large pledges made by the Bank. The Bank rightly qualifies these pledges with the statement that countries have to request these funds from the Bank and have to take the lead in preparing plans and driving the process forward. When the pledged sums do not in fact get committed or disbursed, the Bank (again, plausibly) says that the necessary drive and initiative from the country was lacking. The funds were indeed available had they been requested. There is a circular and Catch 22 nature to these stories. In the field of malaria, and in other fields of priority social development, there is a need for greater honesty in these types of public pronouncements.

- to ensure that IDA funds are available where needed in individual countries to finance (if necessary on a long-term basis) some of the costs of malaria control.

The view of the other partners is that, in practice, this role is not being fulfilled. The general impression of the Bank among the other partners is that it ‘talks the talk,’ but does not deliver in practice on the ground. Partners find that the Bank is not sufficiently active as an advocate for malaria in the broader development discussions and with the Ministries of Finance. Partners find it hard to engage with the Bank to understand or make use of PRSPs, HIPC and related processes. Partners also find the Bank’s lending cycle difficult to penetrate and frequently have the experience that IDA funds are either not available or, where they are, are difficult to make use of and slow to disburse (see Annex E).

Within World Bank headquarters there is no full-time staff person assigned to Roll Back Malaria (except a CDC secondee). The senior RBM focal person at the Bank has no budget to pay for his time or his staff’s time in attending meetings and ensuring that the Bank is a fully participating partner. Coupled with the fact that World Bank country offices frequently do not have health specialists assigned to them, this means that the World Bank’s ability to make substantive contributions to the RBM Partnership are limited. That is, the Bank’s presumed comparative advantage in development policies, sector-wide planning and budgeting is inaccessible to the broader RBM Partnership.

Resources and Financing Instruments

The Bank has come under attack for its position that ‘money is not the problem’ in malaria. At least in some country contexts, the Evaluation Team found corroborating evidence to support this position. In Cameroon, substantial sums of money have been earmarked for malaria under HIPC. The challenge is to find ways of ‘unblocking’ these funds (Box 4). In Tanzania, substantial monies for malaria are potentially available through the SWAp basket, through the HIPC, and through the Poverty-Related Budget Support Programme (PRBS). These funds are not in practice being used to finance the NMCP, and in some cases relevant donors and government officials are unaware of them or unaware of how to make use of them. In addition, the World Bank Adjustable Programme Loan (APL) in Tanzania could easily be used to make funds available for malaria control over the long-term. However, this is being neither done nor discussed, and again many donors and relevant government officials are unaware of the APL or the potential to partially refocus it on malaria (Box 12).

This raises the question: whose responsibility is it, among the partners, to invest time and effort in getting these resources unblocked? It was largely through the World Bank’s efforts that these funds became available in the first place. However, many World Bank country offices do not have a health specialist to help move the process forward, and the other partners (WHO, UNICEF) do not have the knowledge to do so. It seems evident that this problem would not be difficult to address within the context of a well-functioning Secretariat, since RBM staff would work at the country level to help unblock these resources.

Overall, the Evaluation Team gained the sense that the World Bank was a more effective and committed partner early in the life of RBM. The Malaria Team in the Africa region was proactive and effective in collaborating with other RBM partners. The Fiscal Year 1999 status report on Roll Back Malaria at the World Bank provided an excellent summary of activities and priorities. There has been no such report in subsequent years. Other partners wish the World Bank to re-engage in the partnership with the same enthusiasm and commitment as was evident in the earlier years.

Box 12 **SACs, APLs and Malaria in Tanzania**

World Bank activities in Tanzania have emphasized malaria and provided financial support for malaria control. Unfortunately, this has not been widely known and little use has been made of it.

In 1997 the World Bank agreed a structural adjustment credit (SAC) with Tanzania of \$129 million. Co-financing was provided by Norway. The funds were intended to be disbursed rapidly and to facilitate a range of reforms in public expenditure management, social sector policy and investment, parastatal reform, banking reform and petroleum sector liberalization. The health sector component of the social sector reforms included provisions concerning pharmaceutical cost recovery, decentralization, and malaria. The SAC conditionality for malaria was that the Government of Tanzania should "prepare an action plan to reduce the life years lost to malaria". The Evaluation Team has no information on whether this was ever done or what stimulating effect on the NMCP this SAC may have had. The Team noted that no one to whom it spoke in Tanzania, other than World Bank staff, were aware either of the SAC or the malaria conditionality within it.

In 2000 the World Bank and the Government of Tanzania agreed on a health sector development (HSD) programme funded by a \$100 million adjustable programme loan (APL) over 12 years. APLs are a new World Bank lending instrument introduced in 1997. They provide long-term, large-scale, flexible financing. This mechanism is ideal for disease control programmes such as malaria, and generated much excitement among health staff at the Bank when it was first introduced.

The Tanzanian HSD APL is divided into three phases. Phase I (2000-2003) provides \$22 million for a variety of reforms, including the development, costing and implementation of an essential clinical and public health package. This package includes malaria treatment and control. As at November 2001, only \$3.5 million had been disbursed. A mid-term review of Phase I is due during 2002, and provides an opportunity to direct more attention to large-scale implementation of malaria control activities. Such a shift in priority is permissible within the APL, but requires justification and advocacy from the Ministry of Health. The Evaluation Team met no one in Tanzania outside the World Bank office who was familiar with the HSD APL or with its potential to be partially refocused in support of malaria control.

2.3.3 UNICEF

UNICEF's participation in RBM in the early years was felt by other partners to be less active and less committed than expected. UNICEF is also criticized for a tendency to 'go it alone' at the country level and not coordinate its activities closely with other partners. UNICEF's enthusiasm for distributing free bednets to women and children regardless of socio-economic status was frequently cited as a policy that sometimes undermines social marketing efforts being made by the government and other partners. Notwithstanding these comments, it is the relative lack of engagement of UNICEF, until recently, that was most striking to other partners.

This situation has now changed quite dramatically. The Executive Director of UNICEF and its Chief of Health have made strong commitments to RBM and to the goal of effective malaria control. RBM has been designated as UNICEF's major health sector priority, after childhood immunization, and as its 'flagship' programme for child survival in Africa. The new UNICEF Medium-term Strategic Plan (2002-2005) recognizes malaria control and prevention as an important part of the integrated early childhood care for survival, growth and development (I/ECD). In Africa, in particular, UNICEF has become very active in its collaboration with RBM and is engaged in strengthening its technical capacity both at its headquarters in New York and in its Regional Offices in Africa. All this is encouraging and bodes well for the future. However, an important challenge for the future, discussed below in Section 3.3.3, is to define UNICEF's comparative advantage within RBM and to reach agreement on the areas in which its contributions should focus.

2.3.4 UNDP

UNDP was a founding partner of RBM. Since then, it has been a silent partner and the other core partners believe that it has had no role in practice. UNDP was unavailable to interact with the External Evaluation Team. The Evaluation Team is aware that UNDP has given a small grant for malaria control in the Solomon Islands, but found no evidence of other contributions.

2.3.5 Bilaterals

In general, the bilaterals' involvement in RBM is viewed more favorably than that of the founding partners. Both DFID and USAID have played major roles in keeping the flame alive. DFID's contributions have been particularly significant with regard to support to the Secretariat, whereas USAID is the leader among the partners in direct investments in malaria control activities. DFID and USAID have also played an important role as conduits to and financers of the technical expertise on malaria that exists in the United Kingdom and the United States. For example, the Malaria Consortium, drawing on the combined expertise of the London School of Hygiene & Tropical Medicine and the Liverpool School of Tropical Medicine, has made and continues to make substantial contributions to RBM. Similarly, USAID calls on the unrivalled capacities of CDC, and also has good access to the immense scientific resources of the National Institutes of Health (NIH).

USAID has received some criticism from other partners for its 'go it alone' approach to funding health sector programmes. USAID does not channel its funding through SWAp baskets, as do other bilateral donors, and its country level work is not always fully coordinated with other partners. USAID has recently announced a new Malaria Action Coalition (see Box 13).

Box 13 USAID's Malaria Action Coalition

As part of its commitment to RBM partnership USAID has organized its funding to facilitate coordination and joint planning among four of its primary technical partners for malaria: the World Health Organization, the Centers for Disease Control and Prevention (CDC), and two of USAID's projects – the Rational Pharmaceutical Management-Plus Project (RPM Plus) and the Maternal and Neonatal Health (MNH) Project. This Malaria Action Coalition (MAC) will provide technical assistance coordinated with other RBM partners in pursuit of two of the Abuja Summit targets:

- 60% prompt and effective treatment of malaria illness, particularly for children under five;
- 60% access of pregnant women to intermittent preventive treatment (IPT) .

The Coalition will provide coordinated and focused expertise to inter-country groups, national governments and private sector partners throughout Africa in the areas of strategic framework development, epidemiology and operations research, policy dialogue, drug management and regulation, drug use and practices, maternal health and antenatal care, communication/behavior change, performance improvement, monitoring and evaluation; and the implementation of pilot interventions.

It is expected that the MAC will make substantial contributions toward policy revision and implementation throughout malaria-endemic Africa. USAID expects to fund the MAC workplan for at least five years and a total of US\$40-50 million.

Other bilaterals have also been active in RBM. These particularly include Australia, Belgium, Canada, Germany, Italy, Japan, Luxembourg, the Netherlands and Norway. The contributions of these other bilaterals are small at the present time in relation to DFID and USAID, but could grow as their confidence in and co-ownership of RBM improves.

All partners believe that the strong participation in Roll Back Malaria of the European Commission (EC) is extremely important. In practice this has not yet happened. The Evaluation Team met with EC officials in Cambodia who take part in the Regional Malaria Control

Programme in Cambodia, Laos and Vietnam, a five and a half year project sponsored by the EC with a budget of 32 million Euros. This significant involvement by the EC in the Mekong region will end in December 2002, further fuelling concerns among partners that its commitment to malaria control is not firm.

2.3.6 Regional Development Banks

The African Development Bank (AfDB) was the only one of the regional development banks contacted by the Team during the course of the evaluation. The emerging role of the AfDB in assisting in disease prevention and control in the region is noteworthy. Recognizing the socio-economic impact of malaria and its linkages to poverty, the AfDB adopted a Health Sector Policy in 1996 that identified malaria as one of the major diseases in Africa requiring priority investments. The main thrust of the policy is primary health care development, with priority given to disease control (e.g. malaria, HIV/AIDS and tuberculosis) and systems development, with particular attention to health financing measures. Most projects appraised after 1997 have been designed in accordance with reformed and decentralized health care systems, emphasizing district health care management. Since 1999 AfDB has also pursued a multi-sectoral approach that attempts to make use of limited resources for health by incorporating targeted health components into non-health interventions (e.g. agriculture and rural development, water resources, education and population).

In May 2002 the AfDB Board approved the AfDB Malaria Control Strategy paper, which was developed with the assistance of the RBM Secretariat and two Regional Offices, AFRO and EMRO. Annex M provides an executive summary of the Malaria Control Strategy and a table of past Bank investments related to malaria control.

2.3.7 Governments

At the country level, government is the key member of the partnership. Without strong commitment and proactive approaches by governments, little can succeed. Some governments clearly are committed and proactive, and the Abuja Summit undoubtedly stimulated this commitment. Others, such as Tanzania, are not. Box 14 gives a snapshot of malaria in Tanzania.

Especially in countries with a large malaria burden (mainly in Africa) some governments have not assimilated the new messages from RBM concerning the ability to reduce malaria and the strategies for doing so. The Evaluation Team was surprised to learn that senior government officials may share the fatalism towards malaria that is commonplace in African villages. They may also have not yet embraced the four-part strategy for malaria control that the evidence suggests and that RBM has promoted. It was noticeable that when senior government officials talked about malaria control, they talked mainly in terms of environmental measures. They referred to clearing undergrowth around villages and improving drainage as the key interventions. Entomologists believe that these measures are ineffective in much of Africa (except in response to epidemics) due to the specific breeding patterns of *Anopheles gambiae*. This scientific information apparently has not yet been widely accepted in some government circles.

The Evaluation Team was struck by the way in which in Africa HIV/AIDS has come to dominate the health sector agenda in the past two or three years. Many senior Africans interviewed referred to this and indicated that much of their time was now devoted to dealing with HIV/AIDS and to responding to donors and external agencies pushing for greater activity in the field of HIV/AIDS. Governments can only cope with a small number of high priorities, and it was clear that the attention given to HIV/AIDS has decreased the attention given to malaria. An irony in this situation, perceived by some officials, is that unlike HIV/AIDS there are a set of tried and tested interventions for malaria which, if applied on a large scale, could reduce the malaria burden substantially within a few years.

Box 14

From Planning and Studying to Action in Tanzania

Malaria is one of the leading health problems in Tanzania. It is responsible for perhaps a quarter of child deaths and is a major cause of morbidity in adults. Over 40 percent of hospital attendance is due to malaria.

Chronic and severe weaknesses with the health care infrastructure limit the effectiveness of the therapeutic response:

- only 11 percent of clinical staff have had recent training on malaria case management;
- only about half of children receive the correct diagnosis and treatment at health facilities;
- only 11 percent of children treated at home receive appropriate treatment;
- only 29 percent of pregnant women are receiving IPT;
- 71 percent of health facilities have run out of the first-line drug (chloroquine) for at least one week in the last three months.

Knowledge in the community concerning malaria is not high, suggesting the need for greatly increased efforts in communication. Many people go to drug stores or traditional healers when they or their children have fever, suggesting the need for much greater efforts to encourage appropriate responses through the private sector.

Bednets are widely available (Box 5) and increasingly used. However, use of ITNs and the re-treatment of existing nets remain rare.

Tanzania is fortunate in having a considerable cadre of professionals who are knowledgeable about malaria. Tanzania also has the largest and most active malaria research community in Africa, and a comprehensive and thoughtful CSP for 2002-2007. The challenge in Tanzania is to move boldly from studying and planning to effective action on a national scale.

2.4 Financing

Expenditure on malaria worldwide from international sources in 1998 was in the order of \$64 million per year. This was made up of:

- \$2.4 million from WHO;
- \$22 to \$24 million in disbursements from the World Bank;
- \$2 to \$3 million in procurements of bednets and insecticide from UNICEF;
- \$1 to \$2 million in disbursements from the African Development Bank;
- approximately \$10 million in spending by USAID; and
- \$26 to \$29 million from other sources.

For many of these sources, especially the development banks, these estimates rely on identifiable direct or earmarked expenditures on malaria. Expenditures that benefit malaria control activities indirectly, such as spending on communicable diseases more broadly and/or health sector strengthening, are not reflected in these estimates. Also, these estimates of course do not include the very substantial expenditure by countries themselves on malaria control. These national expenditures include expenditures by central and local government and expenditures by households and individuals on preventing and treating malaria. In most developing countries, these private expenditures exceed government expenditures. In some countries, particularly in Asia, the private expenditures are at least three times higher.

International transfers for malaria control in the year 2002 will be approximately \$130 million, a two-fold increase from 1998. Once again, this estimate does not include national expenditures. It also does not include expenditures of separate funds held by AFRO, or anticipated increases in expenditure by the European Commission on RBM. These estimates also do not include

expenditure on malaria research, estimated by the Wellcome Trust in 1993 to be \$84 million per year.

Table 4 Estimated International Expenditures on Malaria in 2002	
Sources	Amount (\$ million)
1. Through RBM	
- From WHO	8.7
- From bilaterals	25.7
- From multilaterals	1.0
Total through RBM	35.4
2. Outside RBM	
- From bilaterals	54.3
- From multilaterals	37.5
- From NGOs	3.3
Total outside RBM	95.1
3. Grand Total	130.5

The expenditure estimates for 2002 are set out in Table 4. Around 28 percent of total spending flows through the RBM Secretariat and WHO Regional and Country offices. The remaining 72 percent of total spending is channeled directly to countries by bilaterals and multilaterals. An estimated 55 percent of total RBM Secretariat spending goes directly to support country-level programmes.

The World Bank contributed nearly half of total spending on malaria in 1998 (approximately \$22-24 million of the \$67 million total), and USAID contributed a quarter of the total amount (approximately \$10 million). In 2002, spending by the multilateral agencies is estimated at one-fifth of total projected spending (at approximately \$37 million), and bilateral contributions are expected to rise to over 60 percent of total spending (or \$80 million).

Of this external financial assistance, large sums go toward commodity purchases. In 1999, World Bank projects for which procurement information¹⁷ is available allocated 62 percent of total spending to insecticides, 16 percent to drugs (especially chloroquine and SP), and the remainder to bednets and other items. These expenditures seem skewed in the light of the fact that use of insecticides, other than on bednets, is not a key strategy for RBM. The apparent inconsistency, however, may derive from the World Bank being the donor of last resort and picking up items that other donors prefer not to fund. The data could also be unrepresentative and may be reflecting unduly the large World Bank malaria project in India (see Annex E).

There was little evidence that the RBM Partnership has influenced the funding decisions of individual partners. Table 3 shows the breakdown of funding to African countries as channelled through the RBM Secretariat or major bilateral and multilateral donors. Although only ten

¹⁷ The study which reached these conclusions only looked at purchases (e.g. drugs, nets, insecticides) which were large enough to justify the Bank's review and therefore was unable to assess the amount of resources directed toward supervision, studies, facilities, supplies, training or consultants. Also, any purchase of anti-malarials which falls into the procurement category of 'essential drugs' will not have been captured by this study.

countries in Africa captured over 70 percent (i.e. \$50 million) of direct-to-country investments in Africa, this does not appear to be due to the coordinated activities of partners. (The ten countries are: Eritrea, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Senegal, Tanzania, Uganda and Zambia). Nonetheless, the individual partners have tended to concentrate their efforts on a small number of countries. Well over half of USAID's spending in 2002 was directed toward six countries. Three African countries captured three quarters of DFID's spending. The vast majority of World Bank disbursements (high estimate) went to seven countries. By comparison, funding channeled through the RBM Secretariat and the WHO regional and country offices were less concentrated, reaching all countries in Africa except six. 53 percent of these funds went to ten countries.

WHO Geneva and its Regional Offices contribute approximate 25 percent of total annual spending on RBM (nearly \$9 million). Approximately \$3.3 million of this amount goes to support country activities. Bilateral support to the RBM Secretariat is projected to be over 70 percent of the \$35 million total spending on RBM in 2002. Most of this (nearly 80 percent) is contributed by two bilaterals – DFID and USAID. Another 15 percent is contributed by Italy and Japan. Other bilateral donors to RBM in 2002 include Australia, Belgium, Canada, Germany, Luxembourg, the Netherlands and Norway. The World Bank contributes \$1.5 million annually to the RBM Secretariat through the Development Grant Facility; \$0.5 million supports the RBM Secretariat in Geneva and the other \$1 million goes to RBM AFRO.

Annual per capita external funding for malaria in Africa amounts to approximately \$0.07 - \$0.08. The Commission on Macroeconomics and Health has estimated that the *additional* annual investment per capita required for effective malaria control is \$0.6 by the year 2007 and \$0.9 by the year 2015 (in terms of the 2002 value of the dollar). These annual per capita expenditures are over and above both the existing international expenditures, which we have estimated here, and the existing national expenditures, which we have not attempted to estimate. If the Commission on Macroeconomics and Health has got its sums right, this indicates that the levels of resource allocation, from both national and international sources, must be increased very substantially if Abuja and Millennium goals are to be met.

The estimates presented here are very rough and incomplete. There is no system in place for tracking either international or national expenditures on malaria control. It would be extremely difficult in practice to put such a system in place. In the case of the development banks, of which the World Bank is the most important in regard to malaria financing, disbursement rates lag well behind commitments and are difficult to track. Projects disburse particularly slowly in their early years (Box 12 and Annex E), and some projects close with substantial undisbursed funds.

For both multilateral and bilateral funding it is extremely difficult in practice to tease out malaria funding from broader communicable disease or health sector funding. On occasion there may be malaria projects. More typically, there are disease control projects or broader health sector projects with malaria components. Even more difficult to account for is funding that may support malaria indirectly through the support of an allied project such as IMCI, or through support for general infrastructure development, such as primary care strengthening or supporting the establishment of systems for disease surveillance. Yet another twist in these complexities is the case in which technical assistance specifically for malaria is funded through another project, such as a communications project. Once again these investments do not show up as malaria investments in the accounting systems of the agencies and are extremely laborious to identify after the event.

In summary, the figures that we present here tell an interesting story, but are in no way reliable or comprehensive. They probably underestimate the level of international financial flows for malaria-related activities, and they contain no estimates of the much larger national expenditures (both public and private) on malaria. Annex F provides more detail on the assumptions and data that underlie this section.

2.5 Communications and Advocacy

Communications and advocacy are essential to the success of RBM. These activities are currently driven by the Communications and Advocacy Team (CAT) of RBM at WHO headquarters. CAT has until now not been an effective or sufficient response to the substantial needs in the field of communication. CAT is regarded as a support rather than a technical unit and is understaffed in relation to the scale and scope of the communication needs. Because of the demands upon it to supply materials, CAT operates in a reactive rather than proactive mode. The three essential needs for communication to ensure the success of RBM are:

- facilitating partner coordination, including sharing technical information and best practice;
- global advocacy; and
- guiding and assisting country programmes with communications.

These areas are reviewed briefly in turn below.

2.5.1 Partner Coordination

A good flow of information within and among partners and country programmes would enable the RBM Partnership to function more effectively. Ideally, all partners and country programmes should be able to find out the latest technical advice and programmatically useful information, know what other partners are doing and planning, and learn from each other's experiences. Current communication practices fall well short of this ideal.

Available documents on ITNs or drug policy tend to be detailed, complex and turgid. Sharing of local best practice seems simply not to be happening, and little is known about countries' experiences with programmatic strategies to deliver the priority interventions. During all its travels and interviews, the Evaluation Team met with very few people outside Cambodia who were aware of the innovative nature of some of the interventions being used in that country (see Box 6). Similarly, many people in Tanzania, never mind in other countries, were unaware of the pioneering research and local implementation efforts that are ongoing in Ifakara and other sites in that country. These experiences need to be much more widely shared and be the subject of lively debate.

2.5.2 Advocacy

The most successful advocacy event to date has been the Abuja Summit. The Summit provided a clear articulation of the RBM strategy and objectives, obtained support for those objectives from African Heads of State, and mobilized some of them to accomplish a specific action – reduction of tariffs and taxes. However, there has been insufficient systematic follow up.

2.5.3 Communication at the Country Level

At present, RBM is falling short of realizing the potential for using communications approaches to energize country efforts. There are two areas where communications expertise is needed to guide and assist national programmes: advocacy and promoting key interventions.

Country level advocacy

The importance of advocacy at the country level was underscored during the Evaluation Team's visit to Tanzania, where senior staff in the Ministries of Health and Finance and in the Prime Minister's Office do not recognize the importance of malaria or know the most effective interventions to control it. Advocacy strategies and activities to inform and engage gatekeeper officials and Ministry staff (including District staff) are urgently needed there, and probably in many other countries as well. Other groups who should be engaged in RBM and who might be

audiences for advocacy efforts include vendors of nets, insecticide and medicines, local politicians, health professionals of all types, and leaders of community-based organizations.

Country level promotion of the priority interventions

A review of CSPs reveals the most important gap in communication associated with RBM: the lack of comprehensive strategies for national promotion of the RBM priority interventions. (This is also related to the lack of fully developed programmatic strategies to deliver the priority interventions.) The fundamental nature of this gap is confirmed by the failure of the RBM situation analysis to mandate the collection of even the basic data relevant to national communication strategies (for example the proportion of people who can be reached using radio or television, or literacy rates in different languages).

Some countries are promoting nets and appropriate treatment, but few are using mass media and promotion on a national scale or with the intensity necessary to raise awareness. Few if any countries are linking interventions.¹⁸ National malaria control programmes tend to focus on each of the RBM interventions as an independent activity, and are apt to rely on implementation through the public sector or NGOs. These approaches do not address the need for large-scale, nationwide implementation through the private sector.

2.6 Human Resources and Capacity Development

RBM faces tremendous bottlenecks in the area of human resources and capacity development that seriously interfere with its ability to roll back malaria. In many countries, especially in Africa, human resources and capacity are a leading or the leading constraint preventing the effective implementation of national programmes in malaria control.

The Strategic Plan for Capacity Development, drafted in July 2000 and endorsed by several countries at the 2001 Abuja Conference, represents an important first step taken by RBM to address the problem at global, regional and country levels. The document lays the foundation for a flexible and creative approach to capacity development, emphasizing the importance of effective policies and systems. It advocates an innovative approach to training, including distance learning, apprenticeships and mentoring, and demonstration projects in addition to standard training practices. It recognizes the need for linking RBM efforts to other global programmes and partnerships. It encourages skills development in both the public and private sectors, and in health and non-health sectors.

At the country level, there are examples of important achievements in capacity development and training. According to the Internal Evaluation report, almost all NMCP managers within the AFRO and EMRO regions, and many other central and district level staff, have been trained on two to three month courses on malaria control planning and management. Also, training guidelines on treating severe malaria are widely used in Africa. Nonetheless, much of the work actually undertaken at country level continues to emphasize more traditional training and technically focused practices.

Unfortunately, the Strategic Plan appears to have had little impact on projects undertaken by the RBM Secretariat or at the level of country and regional programmes. The emphasis continues to be on training. Reliable data on the human resource requirements for scaling up RBM do not exist in any country visited by the Evaluation team. (However, the Cambodian Ministry of Health is currently developing a database to assist as a planning tool to address human resource constraints in priority health areas.) Furthermore, there appears to be little creative thinking on how RBM

¹⁸ An example of a message that links the interventions: “When your child has a fever, give her SP; to reduce the number of times she has fever, make sure she sleeps under a treated net.”

can move forward in selected countries, in the short term, notwithstanding current constraints on human resources and capacity.

In fact, donors and government officials at the country level expressed a high degree of dissatisfaction over current methods used to fill gaps in human resource capacity, such as ‘topping up’ salaries. Although necessary from a short-term perspective, many observers commented on their potentially harmful impact in terms of skewed incentives and harming worker morale. In Cambodia rural health posts and hospitals where wages are very low are frequently unable to retain staff. Meanwhile, trainers contracted by the national malaria control programme and WHO are compensated for a single day of work at levels higher than a full month’s income for rural workers.

These problems are not unique to RBM. Human resource constraints are felt across all sectors and across all programmes within the health sector. However, the Evaluation team felt that RBM’s relatively unfocused efforts in this area, and its narrow emphasis on training activities, have allowed the problem to fester in the context of the most severe crisis in human resources and capacity in history (in the African region).

2.7 Research

RBM promotes and finances its own operational research and also interacts with others who promote and finance a broad range of malaria research, from the most operational to the most fundamental. Particularly important interactions include:

- ❑ Collaboration with developing country research sites where operational, epidemiological and clinical research is conducted. Prominent examples are to be found in countries such as Gambia, Tanzania, Thailand and Vietnam.
- ❑ Collaboration with TDR and with the Multilateral Initiative on Malaria (MIM), an international collaboration headquartered till the end of 2002 at the Fogarty Center at the NIH in Bethesda.
- ❑ Collaboration with the two major initiatives for the development of malaria drugs and vaccines, Medicines for Malaria Venture (MMV) and Malaria Vaccine Initiative (MVI).

These collaborations can be roughly divided into those that have short-term implications and those that have longer-term implications. Both forms of collaboration are important, but in terms of reaching the objectives in Phase II of RBM, it is the former that are especially important. RBM has great need for high quality operational, epidemiological, public health and clinical research that will help guide its policies and recommendations and the activities that are taking place in focus countries. The operational research requires a strong social science component, including anthropology, economics, political science and communications. This has not been sufficiently emphasized hitherto.

The Evaluation Team did not examine relationships between RBM and the various research groups and organizations in any detail. The general impression was gained that these relationships could be improved and probably were improving. The new leadership at TDR is committed to close and appropriate relationships with RBM and is also committed to allocating significant TDR resources to operational research.

The longer-term relationships with bodies such as MMV and MVI are equally important, but less urgent. It is important that RBM is fully aware of drugs and vaccines that may be in the pipeline. It is also important that field experience and insight is fed into the drug and vaccine development process. Without this the optimal drugs and vaccines may not be developed, or their compliance requirements or packaging may be inappropriate for the circumstances in the most affected countries in Africa.

It was noted that relationships between MIM (which has emphasized laboratory-based malaria research in Africa) and RBM were good. There have been RBM/MIM joint workshops. It was commented that African malaria researchers do not see a distinction between malaria control and malaria research, and that the two enterprises work easily together.

It is important that RBM does not try to control the agenda of its research partners, but that there is a good working relationship with them. It is also important that RBM appreciates the need for research, and this was widely thought to be the case. Some commentators contrasted the somewhat defensive view about research that they observed in the Stop TB Initiative with the more embracing view of research displayed by RBM. It was emphasized that it does not undermine the credibility of current recommendations to also call for more research and for the development of better tools. It is essential that RBM draw on the best expertise and the best evidence from around the world in formulating its technical recommendations. Annex G provides a more comprehensive account of the malaria research environment and research priorities.

2.8 Monitoring and Evaluation

USAID commissioned a separate evaluation of the RBM monitoring and evaluation system (M&E). This work was conducted by Kate Macintyre, Erin Eckert and Amara Robinson of Tulane University and the JSI Research and Training Institute. The complete executive summary from this report is reproduced in Annex H.

Progress with M&E in the first few years of RBM has been disappointing. A lack of focus has prevailed. No database exists for tracking global trends in malaria. Most countries in Africa do not have baseline data on measures of infant and child mortality. There is no vision for developing a set of indicators to measure the socio-economic impact of malaria (e.g. costs to the health sector, costs to households and communities, overall economic burden in terms of productivity, sick days, etc.).

Progress that has been achieved has often taken place without adequate RBM coordination. For example, UNICEF has independently collected data on two critical parameters: percentage of children sleeping under ITNs and percentage of children under five receiving appropriate treatment for malaria within 24 hours of the onset of illness, in 35 countries, using the Multiple Indicator Cluster Survey (MICS).

The main problem affecting RBM's data collection efforts, as explained in Annex H, has been that an overly complex and insufficiently prescriptive approach has been taken. There has been a failure to clearly define goals and priorities of the M&E strategy at the global and regional levels, leading to confusion and *ad hoc* data collection efforts at the country level. Too many indicators are proposed. Too many sources of data are suggested. Insufficient guidance is given to countries on data collection and methodology. Insufficient attention is given to precise denominators and to ensuring that the data are representative of some known population. Local autonomy in data collection and use are emphasized (and there are good reasons for this) but the consequence is a muddle. Some countries are measuring one thing, some countries are measuring another. Where countries believe they are measuring the same thing, the data are often not strictly comparable because different sampling methodologies have been used. In some cases, data are being collected without any systematic and scientific sampling methodology, and so are essentially meaningless and impossible to interpret.

The root causes of the problem are multiple, but they are aggravated by a lack of strategic focus and vision at the Secretariat level. As the independent M&E evaluation perceptively states, "RBM is caught between the stated goal of helping countries develop their monitoring systems and the demand to produce accurate and timely tracking for the overall initiative." Progress will prove elusive if this tension is left unresolved, but there are factors that contribute to the lack of

strategic focus and resolve. There is confusion about roles and responsibilities among the several parts of WHO that have some involvement in M&E for RBM. There is also serious under-capacity in some places, notably in WHO AFRO.

It is certainly the case that the history of M&E in malaria is short relative to that of other diseases, and RBM cannot have been expected to solve all data problems in a short amount of time. Yet the urgency is real. Without the ability to measure reliably and comparably a small number of indicators, both of process and outcome, there is no way that RBM can keep on track or know if it is on track or not. If not quickly corrected, the problem is likely to undermine RBM's contributions to two major international initiatives. It will have little to contribute toward the international effort to track progress on the MDGs in the area of malaria, and it will not be able to provide the type of assistance that it should to the Global Fund. (The Fund needs to rely on RBM for the measurement of milestones and progress if it is to be, as intended, a performance-based funding mechanism. See Section 3.6).

2.9 The Malaria Burden

Due to the inadequacies in the systems available for M&E, referred to in Section 2.8, it is not possible to know with any certainty how the malaria burden has changed during the first three years of RBM. However, anecdotal evidence and the strong consensus among experts suggests that, at the very least, the malaria burden has not decreased. What is more likely, and believed to be the case by most of those involved, is that malaria has got somewhat worse during this period.

This worsening of malaria over the past few years has three distinct dimensions. Firstly, there is evidence that in some endemic areas transmission, morbidity and mortality may have increased. The reasons for this are multiple. Increase in resistance of mosquitoes to insecticides and parasites to drugs has clearly played a role.¹⁹ In addition, changing habitats, settlement patterns and population densities can all increase malaria transmission in endemic areas. For example, increased settlement in forest fringe areas, as in Cambodia, increases the number of people exposed to malaria and consequently the malaria burden.

A second important dimension of increased burden relates to complex emergencies. In countries or parts of countries where civil order has broken down and where emergency conditions have been imposed by strife or natural disaster, malaria thrives. The separate report on Malaria in Complex Emergencies, commissioned by USAID, is summarized elsewhere in this report (Section 2.10).

Thirdly, with changing settlement patterns and in the absence of effective control programmes, malaria has been pushing outwards and expanding the endemic zone. There is both a latitude and an altitude component to this expansion. With regard to latitude, malaria is tending to move northwards in the Sahel and southwards in South Africa. Concerning altitude, there are many reports that malaria transmission is found at higher altitudes than previously. This phenomenon is particularly seen in the upland areas of East Africa. This is caused in part by increasing settlement at higher altitudes caused by population pressure and the exploitation of new land for agricultural and other purposes. There may also be a biological component, relating to the adaptation of mosquitoes to be effective vectors at higher altitudes.

It was never expected by the core partners that the burden of malaria would be reduced in the first three years of RBM. However, it is noteworthy that the burden has probably worsened over this period. It increases the sense of challenge and difficulty on the road ahead. It is not only

¹⁹ Recent data from Senegal suggest that resistance to chloroquine increases the risk of malaria death in children <10 years by 2.1, 2.5 and 5.5-fold in Sahel, Savanna and forest areas respectively (Trape *et al.*, 1998).

necessary for RBM to halt this increase, but to reverse it and to demonstrate a reduction in the burden of malaria. This can be achieved both by decreasing the burden in highly affected countries and also by halting and reversing the outwards and upwards spread of the endemic. These complementary strategies are further discussed in Sections 4.1 and 4.2.

2.10 Complex Emergencies

Complex emergencies (CE) were the subject of a separate evaluation commissioned by USAID. The final report of this evaluation was not available to the Evaluation Team at the time this main report was going to press. Annex I reproduces a draft Executive Summary of this separate evaluation.

RBM-CE differs from the main body of RBM in three important ways:

- its array of donors;
- its key implementing partners; and
- its potential array of technical interventions.

Concerning partners, the parts of major bilaterals such as DFID and USAID that deal with emergencies are distinct from those parts that are dealing with ongoing health sector assistance. In addition, there are important players in complex emergencies, such as the Office of the United Nations High Commissioner for Refugees (UNHCR), the World Food Programme (WFP) and the US Bureau of Population, Refugees and Migration, which are not at all involved in other RBM activity.

On the ground, the partners that are active and effective in complex emergencies are different from those engaged in the long-term support of NMCPs. In complex emergencies, it is the NGOs that are the most prominent and effective. WHO is an international agency owned and directed by governments, and governments are often, at least in part, the cause of complex emergencies. This makes WHO's role intrinsically difficult.

The principle objective of interventions in emergency situations is to reduce the mortality rate of the affected population to the pre-emergency levels as rapidly as possible. To achieve this, different measures may have to be implemented from those which are recommended in more stable and more developmental situations.

Specific examples of the above include the appropriateness, in some situations, of using indoor residual spraying as a short-term measure to reduce malaria transmission while other measures are being put in place. Similarly, in an emergency situation it might be appropriate to use a new and expensive drug to achieve rapidly a large mortality reduction in a small population. This might be justified even if that drug was not appropriate for widespread use as the first-line drug for the NMCP.

Notably, RBM-CE has pushed ahead in some areas of applied research. This includes the development and use of factory treated bednets, and the development and use of insecticide-impregnated plastic sheeting. This plastic sheeting is much used in emergencies to provide temporary shelter.

2.11 The Changing Context

During Phase I of RBM, the period 1998 to 2002, the context in which RBM operates has changed significantly. These changes involve both matters directly affecting malaria control, and changes in the broader context in which malaria control takes place.

2.11.1 The Changing Malaria Context

A number of significant events have occurred that directly impinge on malaria control activity. Some of these are listed below.

- ❑ The resistance of parasites to drugs and vectors to insecticides has increased in most or all countries since 1998. This has considerable implications for the choice of drugs and insecticides, two of the most important and difficult issues faced by NMCPs.
- ❑ Significant technical advances have been made in the early years of RBM. RBM has contributed to these technical advances and to disseminating information about them. Advances include the development and trial of combination therapies, the development and use of individual net treatments, the early development of long-lasting nets, and the greater acceptance and experience with intermittent presumptive treatment of pregnant women.
- ❑ Commodities required for malaria control are more widely manufactured and available. These include a variety of drugs, with different forms of packaging, and nets. For example, there are now three manufacturers of nets in Tanzania, supplying the needs of that country and exporting to other countries in Africa and elsewhere.
- ❑ Research on malaria has increased during the period and the evidence from research has strengthened. This research ranges from the malaria genome²⁰ and other fundamental biological discoveries through to the most applied operational research. This research, either in the long term or the short term, will greatly benefit the efforts of RBM.
- ❑ Lastly, two major research enterprises have been established during the first years of RBM. The first, the Medicines for Malaria Venture (MMV), is dedicated to the discovery and production of new malaria drugs. The second, the Malaria Vaccine Initiative (MVI), is dedicated to the discovery and production of malaria vaccines. In addition, a number of major companies have independently pursued and accelerated their work on the development and testing of new drugs and vaccines.

In summary, these developments are very significant. They provide an exciting environment for RBM to increase its effectiveness and to make full use of the fruits of technological advance and research. They also provide a challenge for RBM. Because of changing resistance and the results of research the recommended global and local strategies keep changing. It is a demanding task to keep abreast of all this information and to be able to offer the best technical advice to a particular country at a particular time. While it is generally true that communicable disease control is a moving target and recommendations have constantly to be updated in the light of changing epidemiology and biology and the fruits of research, these changes are particularly rapid and important in the case of malaria.

2.11.2 The Broader Environment

As with the proximal environment described above, the broader environment has also changed dramatically during the first few years of RBM. A few significant events are discussed below.

- ❑ Budget support, SWAp and basket funding have become accepted and commonplace. Donors, with the exception of USAID and a few others, are increasingly providing their health sector support, not through individual projects but by contributions to a basket of funds in the context of a SWAp. The NMCPs must compete with other priorities and programmes for its appropriate share of the basket within the SWAp.

²⁰ By late 2002 or early 2003, the full genomes of *Plasmodium falciparum*, *P. vivax* and other plasmodium species will have been sequenced. In addition, the genomic sequence of *Anopheles gambiae* – the main vector in Africa – is expected soon.

[Note: The genome sequence of *Plasmodium falciparum* has now been published, in: The malaria genome – and beyond. *Nature*, 3 October 2002 (Plasmodium genomics special issue)]

- PRSP, PRSC, PRBS, and HIPC²¹ programmes and processes have proliferated over the past several years. These poverty-related funding mechanisms nearly always specify health as a priority objective and a number of them go further and specify malaria as a priority within the health sector (see Box 15). Building malaria into the priorities of these programmes and obtaining and making use of these funds when they are available has become a new and different challenge for those seeking to finance NMCPs.

Box 15

The PRSP in Tanzania

The Poverty Reduction Strategy Paper (PRSP) in Tanzania was published in October 2000, and gives priority to health, education, water, judiciary, agriculture and roads. The health goal is to "arrest the decline in life expectancy (owing to the impact of HIV/AIDS), and then raise it to 52 years by the year 2010.". This will be achieved in part by reducing under-five mortality rates from 158 to 127 per thousand by 2003. A further goal is to reduce the proportion of mortality caused by malaria from 12.8 percent to 10 percent by 2003.

In August 2001 the government produced its first progress report on the PRSP. Progress in the first year concerning malaria is stated as follows: "New guidelines have been developed and distributed, training of trainers has been completed, and drugs have been ordered." It is also noted that the coverage by IMCI has increased from 17 to 31 districts.

The report envisages an increase in the budget for malaria prevention and control from around 1 billion Tanzanian shillings (TSh) in 2001/2002 to TSh2 billion in 2002/2003. During the same period, the total expenditure on primary care will stay constant at around TSh100 billion, while the total health sector budget will increase from TSh139 billion to TSh222 billion. Overall health sector spending will increase from 0.4 percent of GDP in 1998/99 to 1.3 percent in 2000/2001.

It is remarkable that one of Tanzania's leading causes of death, and the greatest killer of Tanzanian children, should be allocated such a small fraction of the primary health care and total health budgets. However, other budget lines, especially that for drugs, contain finance for the prevention and treatment of malaria.

Out of a total national budget in 2000/2001 of TSh1490 billion, TSh222 billion come from the Poverty Reduction Budget Support Programme (PRBS) and related sources and a further TSh57 billion from HIPC relief. Thus PRSP-related sources make a significant contribution to the ability of the Tanzanian Government to spend on malaria and other priorities.

- HIV/AIDS has come to dominate the health sector agenda, particularly in Africa. It was clear to the Evaluation Team that this has made it more difficult in some countries to create and sustain the necessary sense of priority and urgency for malaria.
- The Global Fund to Fight AIDS, TB and Malaria (The Global Fund) has been born and is in the process of making its first financial allocations. The Global Fund is a significant new source of malaria funding and changes the context in which RBM works in many countries.
- The Commission on Macroeconomics and Health (CMH) has reported in December 2001. The CMH gave priority to the control of a small number of major killing diseases. Malaria was prominent among these. The CMH called for greatly increased investments, both national and international, in malaria control. These arguments should strengthen commitment and the availability of funds.

²¹ PRSPs (Poverty Reduction Strategy Papers) provide the basis for expenditure plans under PRSCs (Poverty Reduction Strategy Credits), PRBSs (Poverty Reduction Budget Support Programmes) and HICPs (Debt Initiative for Heavily Indebted Poor Countries).

- Lastly, since 1998 the somewhat disappointing evidence on aid effectiveness has become available and issues of good governance have become more prominent in the debates concerning economic and social development. This affects RBM in the context of country selectivity. The climate of evidence and opinion is now more supportive of concentrating efforts on countries where there is good governance and ability to make solid progress in the short term. This approach was further strengthened by the discussions at the recent Conference on Development Finance in Monterey, Mexico.

Taken together, these factors represent a significant shift in the broader environment in the first few years of the life of RBM. Again, they present both opportunities and challenges. The opportunities come from the enhanced political commitment and availability of international finance. The challenges come from the need to fully exploit these new opportunities. For example, SWAps, PRSPs and HIPCs are complicated and most people who work in malaria do not yet understand them or have the necessary skills to exploit them to the advantage of RBM. This understanding and skill is needed quickly. Some lessons for RBM's future involvement may be drawn from the experience of the Joint United Nations Programme on HIV/AIDS (UNAIDS) in dealing with these issues (Box 16).

Box 16

Dropping the Ball on PRSPs and HIPCs

The Poverty Reduction Strategy Paper (PRSP) in Tanzania was published in October 2000, and gives priority to health, education, water, judiciary, agriculture and roads. The health goal is to "arrest the decline in life expectancy (owing to the impact of HIV/AIDS), and then raise it to 52 years by the year 2010.". This will be achieved in part by reducing under-five mortality rates from 158 to 127 per thousand by 2003. A further goal is to reduce the proportion of mortality caused by malaria from 12.8 percent to 10 percent by 2003.

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2.12 Was RBM Needed?

The Evaluation Team was presented with the question of whether RBM should have been established in the first place and whether there was a need and purpose for it. The answer is an unequivocal 'yes'.

The failures since the 1950s, and the widespread despondency concerning malaria that they generated, left many countries in a situation where malaria was gradually worsening and nothing much was being done about it. Resistance was rising, transmission was increasing, control programmes had fallen into disrepair, and a general mood of fatalism concerning malaria existed.

At the same time, research and experiences with control at the local level were demonstrating that the right strategies applied in the right way could rapidly reduce the burden of mortality due to malaria. Particularly striking, in this regard, was the research in the mid- and late-1990s on insecticide-treated bednets. Studies from the Gambia, Tanzania and elsewhere, showed that under five mortality could be reduced by as much as one-third when impregnated nets were introduced and appropriately used. The magnitude of this impact was a big surprise, and is still not fully understood. It did, however, send a message that there is something that we can do and that it is not very complicated or expensive.

In some countries, particularly those in South-East Asia and Latin America, the fruits of this new research and experience were being taken up and applied in NMCPs, even prior to the creation of RBM. This would have continued and been successful even if RBM had not been created. However, in the worst affected countries, mainly those in Africa, this was not occurring and would not have occurred without the African Initiative on Malaria Control and, subsequently, RBM. The despondency was too deep and the technical and logistical problems too great for there to have been a major counter attack on malaria in the absence of a strong global programme that would strengthen political commitment, mobilize resources and provide technical support at the country level.

Some have argued that RBM should not have been launched because the problems in Africa are too intractable and the tools and technologies are not adequate to reduce significantly the malaria burden. The great majority of experts, together with the External Evaluation Team, disagree with this position. The tools and strategies that are available are indeed adequate to reduce significantly the malaria burden. In addition, RBM is in an excellent position to test and make use of new tools and strategies as they become available as a result of research. Indeed, one of the justifications of RBM was and remains that it will be a magnet for research and a place where the results of research can be quickly tried and, if successful, utilized on a large scale. These technical issues in malaria control are reviewed comprehensively in Annex J.

2.13 Is RBM Still Needed?

Roll Back Malaria has been enormously successful in some important areas in Phase I. The Partnership has created 'value-added' at the global level through advocacy, resource mobilization and identification of tools and interventions. The whole being greater than the sum of its parts, the overall impact of RBM is greater because partners are seen to be acting in concert, greatly raising the profile of their activities.

A different, though equally important, principle applies to the value created by efficiency gains. Some data needs to be collected only once, and a global M&E system helps to minimize duplication and overlap. There are many examples of this type of gain.

However, the Evaluation Team found that the 'value-added' potential of the Partnership has not been fully realized at the country level. In countries, the uncoordinated actions of partners add up to less than wished for in terms of overall impact. The Team's assessment was that especially at country level, the 'loose ties' arrangements upon which RBM was constructed have proven counter-productive. While the 'loose ties' are not directly responsible for many of the weaknesses identified by the Evaluation Team, they do explain why the Partnership has been unable to act quickly and decisively to correct these weaknesses.

2.14 Is RBM Well Positioned for Phase II?

The sections of Chapter 2, above, make the answer to this question abundantly clear. It is 'no'.

RBM has some notable achievements to its credit. It is not, however, well placed to effectively meet the challenges of Phase II. During Phase II it is essential to create quickly (say within the next three to five years) significant and measurable reductions in the malaria burden in a

meaningful number of countries. The current functioning of RBM, both at the global and country levels, is not adequate to fulfil this mission. Chapter 3 sets out the changes in RBM that are necessary and recommended in order for RBM to be well positioned for success in Phase II.

Chapter 3

Recommendations for Phase II

Phase II is the period during which RBM must focus urgently on *achieving impact*. The Evaluation Team felt strongly that if reasonable progress cannot be demonstrated in three to five years' time, the global effort to combat malaria will lose critical momentum. The recommendations in this chapter are therefore oriented toward making things happen at country level.

It is therefore perhaps surprising that the majority of the recommendations presented in this chapter involve changes in governance structures and management at the global and regional levels. The reason for this is that the current 'loose ties' arrangements promoted by the partnership, as discussed in Chapter 2, do not appear to be effective in getting projects up and running at the country level. Without an effective governance structure, RBM is not in a position to agree upon and implement a decisive action plan at the country level. Without clear lines of accountability, no single agency can be held responsible for inactivity or slow progress at the country level. Hence, the Evaluation Team recommends a first order 'fix' but does not presume this is the end of the story.

At the country level, the Evaluation Team hopes to see a greater emphasis on 'scaling up' malaria control activities in the context of health sector development and planning, and poverty-reduction strategies. This will require the active engagement or re-engagement of partners with well-defined commitments to specific activities in a small number of focus countries. It will require a renewed sense of ownership of the RBM mission by the World Bank, UNICEF and others, and a lessening of control by WHO. It will also require greater clarity around the programmatic approaches such as IMCI and EPI that can be used to deliver RBM priority interventions to target populations. To achieve greater impact at the country level, malaria control activities will need to be better integrated with the broader developmental planning and budgetary cycles of governments. Also at the country level, RBM can make better use of social marketing strategies and building relationships with local providers of care, nets and drugs. In financing, communications, research and capacity building, modifications of strategy and emphasis are also needed. Vigorous, effective and large-scale action at the country level must be the main focus of RBM in the coming years, but this will not be possible without major reforms of the RBM global architecture.

To re-activate the partnership, the Evaluation Team recommends three major reforms of the RBM global architecture (described in Section 3.1). The Team also recommends two strategic changes which will permit RBM to achieve rapid impact within a sub-set of malarious countries (described in Section 3.2).

3.1 A Revitalized RBM

Three major reforms of the global architecture of RBM are described in this section:

- reorganization of the RBM Secretariat;
- creation of a governance board; and
- reconstitution of the Technical Support Networks.

In considering alternative organizational structures for RBM, the Team examined the experience of several of the existing global partnerships, including Stop TB, the Global Alliance for Vaccines and Immunization (GAVI), UNAIDS, and the Global Polio Eradication Initiative. Stop TB and GAVI provided particularly useful reference points. Annexes K and L present overviews of the organization of Stop TB and GAVI respectively, and Table 5 compares the main features of these partnerships with both the current and recommended architecture of RBM.

Activity	GAVI	Stop TB	RBM (current)	RBM (proposed)
Fundraising, Global Advocacy	Global Vaccine Fund, GAVI Board	Coordinating Board	Secretariat	Secretariat
Decision Making, Policy Setting	GAVI Board (15 members)	Coordinating Board (27 members, max.)	Secretariat	RBM Board (10 members)
Operations and Implementation	Working Group	Working Committee/ Secretariat	Secretariat	Secretariat
Administration	Secretariat	Secretariat	Secretariat	Secretariat
Forging Technical Consensus among Partners/ Info Sharing	Task Forces (4)	Working Groups (6)	Technical Support Networks (?)	TSNs organized around RBM interventions (4)
Technical Support to Countries	Regional Working Groups	DOTS Expansion Working Group	RBM Secretariat/WHO Regional Offices/ TSNs	WHO HQ, WHO Regional Offices
Partners' Involvement	Partners' Meetings (every 2 years)	Stop TB Forum (every 2 years)	Partners' Meetings (every year)	RBM Forum (every 2 years)
Country Level Catalyst	Inter-Agency Coordinating Committees	WHO TB Medical Officer (from WHO or seconded from other Partners)	National Malaria Programme Officers (appointed by WHO country office)	RBM Country Champion (appointed by Secretariat)
Focus Countries	No, although there are eligibility criteria	22 high burden countries	No	8-12 focus countries

3.1.1 Reorganization of the RBM Secretariat

There is a pressing need to distinguish more clearly between the Secretariat, which should represent all RBM partners, and the organizational structure of WHO's malaria control activities. Not only will this help WHO achieve better focus on activities relating to its own role as an RBM partner, but it will motivate other partners to become more actively engaged in guiding the specific activities and focus of the Secretariat.

Concerning the location of the Secretariat, it could be moved out of WHO, but the question then is, 'Where to?' The answer with GAVI was to locate the Secretariat in the small UNICEF office in Geneva, thus giving it a relatively independent position while still having the convenience of the administrative support of an established agency. This is certainly an option for the RBM Secretariat, but is not recommended. On balance, the Secretariat is most appropriately and conveniently housed within WHO. It should, however, be separated from the technical malaria

control activities of WHO. This could be achieved by moving the RBM Secretariat out of the Communicable Diseases cluster (CDS) into another cluster, perhaps one dealing with global public goods, inter-agency collaboration, or similar matters.

An alternative would be to keep the RBM Secretariat in the CDS cluster but clearly separate it from the technical RBM team. A variant of this model has been adopted by the Stop TB Initiative, and the Evaluation Team was assured by some partners that they were satisfied with this arrangement. However, in the Stop TB model both the Secretariat of the Partnership and the technical team report to the Stop TB Project Director, who reports to the Executive Director of the CDS cluster. In practice this gives the appearance that Stop TB is a WHO programme, with others playing a role through the Stop TB Coordinating Board (see Annex K). It is strongly recommended that for RBM a clear separation is made between the Secretariat of the partnership and the WHO technical RBM Team. This will redress past imbalances and re-establish trust among the partners. This can be achieved either by moving the Secretariat to another cluster or by ensuring clear separation between the Secretariat and the RBM technical team within the CDS cluster. In either case, the accountability of the Secretariat to the RBM Board (at least *de facto*) is essential.

Concerning the staffing of the Secretariat, a range of expertise in public health, health systems, finance, communications and advocacy will be required. It is advantageous that the Secretariat have good inside knowledge of the work of the core partners. This can be achieved in practice by secondments from the core partners to the RBM Secretariat. Again there are parallels with the Stop TB Initiative, which has several secondees in its partnership Secretariat. The RBM Secretariat might be mainly composed of such secondees. This arrangement will strengthen the effectiveness of the Secretariat and demonstrate the serious commitment of the core partners. Indeed, a condition for being a core partner might be to provide a secondee to the Secretariat of the Partnership.

Concerning the functions of the Secretariat, these should build on the current focus on global advocacy, partner communications and fund-raising, but be clearly distinguishable from the activities of the WHO technical team. The functions of the Secretariat should include the following:

- ❑ global advocacy and resource mobilization;
- ❑ standardizing monitoring and evaluation methods, and collecting, analyzing and disseminating information about the global malaria situation;
- ❑ selection of the focus countries and ongoing monitoring of the activities of partners in focus countries (see Section 3.2.1);
- ❑ the appointment, supervision and support of the Country Champions (see Section 3.2.2);
- ❑ coordination of the core partners and ensuring that the core partners fulfill their responsibilities, especially in the focus countries;
- ❑ the facilitation of cross-fertilization of good practice among countries and regions;
- ❑ general oversight and support of the links between RBM and the major malaria research programmes; and
- ❑ liaising with the Global Fund.

At first approximation these functions suggest a Secretariat with perhaps fifteen professionals together with support staff. These professionals should include secondees from UNICEF, the World Bank, DFID, USAID, other bilaterals and, possibly, NGOs.

3.1.2 Creation of an Autonomous Governing Body

There is a need for some form of governing body to advise and oversee the activities of the Secretariat and to make decisions on behalf of the RBM Partnership. The governing body should seek to ensure that the Secretariat's activities fully represent the interests of the entire Partnership. It should also be charged with commissioning periodic evaluations to ensure that RBM activities are having the intended impact, both globally and in the focus countries. This RBM governing body would be the equivalent of the GAVI Board or the Coordinating Board for the Stop TB Initiative.

It is important that the governing body does not become an excessively demanding organization which will distract the Secretariat from its main tasks. The governing body should not meet too frequently (perhaps twice a year) and should allow plenty of space for the Director of the Secretariat to get on and do an effective job.

A possible structure for a governing body with a total of ten members might be:

- WHO, UNICEF, World Bank;
- Bilaterals (rotating);
- NMCP heads (rotating);
- one NGO (rotating);
- one malaria expert from south (rotating); and
- one private sector representative.

Both the GAVI and the Stop TB Boards are larger than this, with 15 and 27 members respectively. A larger Board may be needed to allow for adequate representation of all partners, although this will challenge the Board's efficiency of decision-making and its overall effectiveness. The creation of a sub-group of the Board that will be more actively engaged in day-to-day operations of the Secretariat may be one way to deal with the unwieldy character of a larger Board. Both GAVI and Stop TB have established precedents for this. For example, the GAVI Board has a ten-member Working Group which is responsible for implementation of the Board's decisions.²² The Working Committee of the Stop TB Coordinating Board is composed of six members who participate in bi-weekly telephone conferences and who agree to dedicate half a day per week to Stop TB activities.

The creation of an RBM Board will not threaten the existence of the broader RBM Partners' meetings, which might be reconstituted as the RBM Forum. The RBM Forum would represent the wider constituency of all those engaged in the fight against malaria. It would not be a decision-making body. It might meet every two years in a large gathering to review progress and strengthen morale and commitment. The equivalent mechanisms for the other global partnerships are the Stop TB Forum and the GAVI Partners' Meetings, both of which are held roughly every two years.

3.1.3 Reconstitution of the Technical Support Networks

The Technical Support Networks (TSNs), originally known as Resource Networks, have been working poorly. Most partners could not even list which TSNs were in existence or give a clear view of their products and impact. There is also confusion concerning whether they should focus on technical standard setting or on country support or on some combination of these. Even the most successful TSN, the one dealing with ITNs, was thought to have fallen short of the desirable level of technical expertise and guidance.

²² The GAVI Working Group is composed of mid-level managers who are involved in the day-to-day operations of their respective organizations, while the GAVI Board is comprised of the highest level representation of partners – e.g. Gro Brundtland of WHO and Carol Bellamy of UNICEF.

The Evaluation Team recommends that TSNs should be reconstituted in order to provide an effective mechanism for technical consensus and communication. They should be structured around the four-part RBM strategy, but they may also form in response to critical challenges of the day that cut across issue/area (e.g. human resources and capacity development; malaria and poverty). The is would suggest at least four TSNs:

- rapid diagnosis and treatment;
- intermittent presumptive treatment for pregnant women;
- insecticide-treated nets and materials; and
- detecting and responding to epidemics.

Some of these areas are large and TSNs may wish to create subgroups on an *ad hoc* basis to deal with highly specialized issues.

The role of the TSN should be to create and support a technical consensus and to deal with complex strategic issues concerning the implementation of that consensus. TSNs should not directly be in the business of country support. However, the information from TSNs would undoubtedly be used by those giving country support and members of TSNs may be called on individually to play a country support role.

TSNs could be recreated by and report to the RBM Secretariat. They should include a wide representation of partners as well as individual experts from countries. Each needs a strong and independent chair (not a WHO staff caretaker) and financial backing to fund core activities. The precise relationship they would have to the WHO malaria technical team (presuming a separation between the WHO technical team and the RBM Secretariat) must be carefully thought through.²³

3.2 Heightened Focus and Effectiveness at the Country Level

The Evaluation Team heard the opinion expressed repeatedly that RBM in Phase II may be Africa's 'last chance' at a major effort to combat malaria within the region. Commentators expressed a growing recognition that Africa cannot afford another decade of failure and wasted effort. Progress in a dozen countries will represent a huge step forward for Africa, demonstrating that a major response to malaria is indeed possible.

RBM has previously identified 'spotlight countries' – perhaps on as many as three separate occasions – but focused efforts have not been achieved. The only explanation offered was that, due to its particular constitutional mandate, WHO has not been able to provide selective assistance to countries. It was also felt that WHO is unable to influence countries more proactively to underscore the urgency of malaria control, due to its sensitive political relationships with member States.

These two concerns – that RBM has not been able to be either selective or proactively engaged with countries – once again underscore the importance of separating the Secretariat activities and WHO's role as contributing partner. The Secretariat as an independent entity should be capable

²³ The comparable mechanism in Stop TB is the Working Groups. There are six of these, dealing with DOTS expansion, TB/HIV, DOTS plus and multidrug-resistant tuberculosis (MDR TB), new TB vaccines, new TB diagnostics, and new TB drugs. The first three of these are housed at WHO and the others are housed elsewhere. The Working Groups, with the exception of the one dealing with DOTs expansion, are not involved in technical support at the country level. It is clear from a variety of comments from RBM Partners who are also Stop TB partners, that the RBM Technical Support Networks are not working as well as the Stop TB Working Groups. A careful review of this experience will provide useful information to redesign and re-launch the RBM TSNs.

of working with a selection of countries and creating a focused workplan that is proactively engaged.

From the standpoint of organizational effectiveness, selectivity and proactive engagement with countries are also needed to help guide the Secretariat in its activities. For example, the Secretariat's focus on the development of CSPs in numerous countries may have distracted it from pursuing other fruitful leads more vigorously. A more focused Secretariat can avoid problems such as:

- lack of detailed knowledge about countries that RBM supports;
- wasted effort on activities that are disassociated from country-level processes and planning cycles; and
- lack of follow-up support to countries in a timely manner.

3.2.1 Selection of Eight to Twelve Focus Countries

Many of those interviewed agree that focus is needed, but there is little consensus on *how* to focus. In view of how much must be accomplished, even in countries which have been relatively successful by current RBM standards, it is strongly recommended that the focus countries be selected from a sub-set of countries that show a high degree of commitment and that will be able to demonstrate significant progress over the next three years.

A common objection is that this criterion will drive the selection to the well-established 'darlings' of the development community. An alternative expression of this concern is that selection will lead to the picking of only 'low-hanging fruit'. This assumes that it is relatively easy to achieve malaria control in the best-positioned countries, or even that these countries would be successful on their own, in the absence of substantial external assistance. Neither of these positions is tenable. There are no low-hanging fruit in malaria control in Africa. There are high-hanging fruit and very high-hanging fruit. Even in those countries which have the necessary preconditions to control malaria on a national scale, the task will be extremely difficult. Nowhere in Africa today is malaria being rolled back. The effectiveness of the strategy that RBM has developed and advocated has not been demonstrated on a national scale in Africa. Even countries which are best positioned will not make progress without significant input from a newly reorganized and revitalized RBM.

Another argument against country selectivity is that it may prevent the achievement of the Abuja targets. Even if only the largest countries were chosen, it would still prove impossible to halve malaria mortality by 2010 if success was mainly achieved in only eight to twelve countries in Africa. The response to this is two-fold. Firstly, without focus the Abuja targets will certainly not be achieved. Secondly, the focus on eight to twelve countries is a strategy for the shorter-term, perhaps the next three to five years. While this is occurring useful work can also be done which will lead to some reduction in the burden in other countries. In addition, following demonstrated success in eight to twelve countries, RBM will rapidly expand successful approaches to as large a number of countries as possible, as quickly as possible.

The Evaluation Team also recommends that RBM focus on a small number of other countries, within the set of eight to twelve, whose circumstances are more challenging than the rest. These should be countries which, while not ready to implement effective programmes on the national scale, could nonetheless make solid progress over the next three years. Support to this group of countries should focus on preparing them for subsequent large-scale efforts.

Another approach to the selection of focus countries would be to create blocks of contiguous countries in which malaria is being effectively controlled. This approach was contained in the original 1996 hypothesis put forward by AFRO and the World Bank (Annex A). The advantages of creating multi-country zones of effective control are obvious, and include strong inter-country collaboration and the reduction of cross-border flow of infected mosquitoes or people.

The method of selection of the focus countries is a matter for the partners to resolve. The several previous attempts to identify spotlight countries have arrived at very similar lists. When each partner is asked to nominate potential focus countries, the same names come up over and over again. It is desirable for clear criteria to be established and for the process of selection of focus countries to be transparent. An alternative model is for focus countries to self-select. Countries that are better prepared, that have good applications to the Global Fund, and that are asking for and absorbing financial and technical assistance, will naturally become the countries on which the donor community focuses. As mentioned above (Section 2.4), this is already happening in practice. In Africa ten countries receive over 70 percent of the bilateral and multilateral financial support for malaria.

This discussion of focus countries applies mainly to Africa, but may have some application in other regions. For example, the WRPO region of WHO has three holo-endemic countries: Papua New Guinea, the Solomon Islands and Vanuatu. Of these, only Vanuatu, is well placed to make significant progress in malaria control in the next few years. The other two have seen their NMCPs decimated by chronic civil unrest and lawlessness. Thus Vanuatu is the clear candidate to be a focus country in the Pacific Region of WPRO. Similar arguments may apply in other parts of WPRO (for example, Cambodia is more likely to make rapid progress than Laos) in EMRO (Turkey rather than Afghanistan), SEARO (Andra Pradesh rather than Bihar) and PAHO.

3.2.2 Appointment of Country Champions

In the absence of a clear focal point and dynamic leadership at the country level, there is little prospect of effective progress. A component of this leadership needs to be the NMCP, with full support of the Ministry of Health and other parts of government. A model tried by some programmes, and of which there is considerable experience, is the creation of some kind of a committee or steering group at the country level. Thus immunization programmes have their intra-country coordinating committees (ICC). A similar committee could be established for malaria. In addition, as a condition for applying to the Global Fund, countries must create a Country Coordinating Mechanism (CCM). This CCM will, by definition, be dealing with AIDS, TB and malaria. It is possible for leadership to be provided by the CCM, or a malaria subcommittee of the CCM.

In practice, the Evaluation Team has doubts about these mechanisms. The creation of another ICC for malaria would proliferate committees in a confusing way and will not be popular with governments or donors, for good reasons. The CCM is likely to be a large and cumbersome organization. It is required to represent numerous constituencies, both inside and outside government. It is unlikely to be an effective or dynamic body for dealing with day-to-day issues. A malaria sub-committee of the CCM might operate slightly better, but would still suffer from being too large and too complex to be effective in practice.

In the light of these arguments, the Evaluation Team recommends that each RBM focus country appoint a Country Champion. The Country Champion can be located in the local office of any of the RBM partners that are active in that country. One size does not fit all. The appropriate identity and the location of the Champion in each focus country will be different. The Champion needs to be sufficiently senior and experienced to operate as an effective coordinator and advocate among the agencies, NGOs and relevant sections of government. The Champion must be located in a partner organization which is fully committed both to RBM and to rapid progress on malaria in the country concerned. The Champion could in many cases be an appropriate person located in the WHO country office. This is the model in Cambodia and it is highly successful. However, the placement of the RBM Country Champions within the focus countries should be flexible and reflect the specific circumstances of the country to which they are assigned. Country Programme

Advisors (CPAs) have been deployed by UNAIDS for similar purposes with good results in some countries, and may offer a model from which RBM could draw (Box 17). Similarly, the Stop TB Partnership has assigned TB Medical Officers to approximately half of the 22 high-burden countries of focus. These staff are relatively senior compared to the National Programme Officers, and may be seconded by other Stop TB partners, as well as by WHO.

Box 17
UNAIDS Country Programme Advisors (CPAs)

UNAIDS employs between 50 and 60 CPAs in developing countries. Nearly half of these are assigned to African countries. The CPA works primarily with the UN system in host countries to catalyse action at the country level. They are increasingly supported by inter-country teams which help secure technical support for countries. The CPA is typically *not* a technical expert. This created confusion over the CPA's role when the position was first created. The portfolio of roles and responsibilities of the UNAIDS CPA includes, but is not limited to:

1. Advocacy, and facilitating collaboration between the UN system and national and international partners in support of an expanded national response by:
 - encouraging cooperation between the UN system and national and international partners and stakeholders in strategic planning and resource mobilization;
 - increasing the profile of HIV/AIDS within countries;
 - improving country and regional access to technical support; and
 - supporting national efforts to mobilize additional resources.
2. Documenting and disseminating best practice by:
 - promoting national adaptation and application of relevant and appropriate best practice, including UNAIDS policies; and
 - identifying and documenting best practice for incorporation into UNAIDS best practice material or for national/international dissemination.
3. Advising the UNAIDS Secretariat on collaborating and supporting country-level activities by:
 - monitoring the national HIV/AIDS situation and response;
 - identifying opportunities, obstacles and gaps and advice regarding optimal UNAIDS Secretariat collaboration; and
 - assisting, as relevant, with development, monitoring and evaluation of UNAIDS-supported projects, including those funded through Strategic Planning and Development Funds (SPDF).

3.3 Role of Individual Partners

An essential purpose of the re-engineering of RBM recommended here is to create renewed and vigorous commitment among partners to work closely together to achieve impact at the country level. This requires partners to make clear commitments to their roles and responsibilities and then to stick to them and be held to them by others. The recommendations below are focused on clarifying what the key roles of the core partners should be in practice.

3.3.1 WHO

The strong recommendation regarding the future role of WHO as a partner is that it should concentrate on providing scientific and technical leadership to countries and RBM partners. In doing so, it should capitalize on the skills and talents of outside researchers, policy makers and institutions, recognizing that its authority rests with its convening power to call on the best expertise worldwide. The collation, synthesis and distillation of 'best practice' to inform member States is one of its most important roles as the world's only international agency dedicated to health. In this regard, the Evaluation Team found that WHO has tended to under-utilize expert advice from African institutions and other leading sources of technical support from the developing world.

The uneasy relationship between WHO Headquarters and the Regional Offices (particularly AFRO) is a hindrance to the successful performance of its normative functions. In theory, headquarters' role is to provide normative guidance to the Regional Offices which are then responsible for modifying this to fit the specific contexts of countries within their regions. This does not consistently happen in practice, although the relationship is more 'seamless' for some regions than for others.

The concept of 'One WHO', which is being actively pursued by the Director-General, is of great importance in the context of RBM. A single corporate WHO would find it a straightforward managerial task to decide which functions are best done at the corporate headquarters in Geneva and which functions are best decentralized to the regional or country levels. This kind of decision-making needs to happen. The balance in the location of technical expertise between Geneva, the regions and the countries is not of great concern to the other partners, provided that it works effectively in practice. It is a matter for WHO to decide and implement.

A related issue, which should be straightforward in the 'One WHO' model, is to ensure that different parts of WHO learn quickly and effectively from each other. The Evaluation Team found no evidence that information from WPRO was reaching AFRO or vice-versa. There have been no instances of the exchange of staff between these or other regions. Similarly, an obvious role for corporate headquarters in Geneva is to synthesize best practices and make them widely available throughout the system. This is not occurring. RBM staff in Africa are unaware of the exciting progress and achievements in Cambodia. WHO is a knowledge organization, *par excellence*. Before it can effectively share knowledge with others, it has to learn to share knowledge with itself.

The other major recommendation concerning WHO is the separation of the Secretariat from the WHO's partner functions. This is discussed above in Section 3.1.3.

3.3.2 The World Bank

For the World Bank to become an effective partner in RBM, three things must happen. Firstly, a decision must be taken by senior management that Bank collaboration in RBM is indeed a corporate priority and a small budget must be created (estimated to be around \$600,000 per year) to fund the costs of this participation. This budget will allow for the creation and support of an RBM Team at the Bank. The RBM Team might comprise a proportion (say 20 percent) of the senior RBM focal point at the Bank, plus (say) two more junior World Bank staff who would work more or less full-time on RBM. This work would not only be at the level of the global partnership, but would also include country missions and country support work. This country work could, in many cases, be charged to other budgets.

The RBM Team at the Bank should also include a staff member seconded to the RBM Secretariat at WHO. The World Bank had a secondee in the Secretariat between March 1999 and September 2000. This arrangement was of great benefit to WHO and the Bank, and to the functioning of the RBM Partnership. It should be recreated. For preference, the World Bank secondee at the Secretariat should not be a malaria or health expert, but should be expert in Bank operations, finance and poverty-related funding mechanisms.

The best location for this RBM Team in the Bank is probably within the Africa Vice-Presidency, although it is important that it supports malaria work in other regions and is able to represent the World Bank's participation in malaria control globally, not just in Africa. These latter requirements suggest an alternative location in the Health, Nutrition and Population Anchor.

Secondly, the World Bank should be an active participant in the process of selecting focus countries. Having selected the focus countries, the World Bank will then need to consider

internally in which of these it can practically offer a significant contribution across at least several of the key roles outlined in Section 2.3.2. The Bank should be careful not to over-promise. If it can deliver in Tanzania but not in Eritrea, then it is better to say so at the outset and avoid false expectations. The Bank should commit to being a full and active partner, initially in a subset of the focus countries. Obviously, it will be easiest for the Bank to be an effective collaborator in a larger country where the Bank has substantial operations, where the Bank has a health sector staff member in-country or close by, and where there is ongoing health sector lending. Over time, the Bank should be able to gradually expand the list of countries in which it is actively working.

An important element of the Bank's commitment to be an effective partner in named countries is the full support and engagement of the Country Directors. The Country Directors have to be persuaded on good evidence that malaria is indeed a high priority in the context of the numerous other priorities with which they have to deal.

Thirdly, the Bank should make a big effort to educate other partners, both in Bank procedures (especially with regard to IDA lending cycles) and the mysteries of PRSPs, HIPC's and related animals. It is also important that the Bank continue its efforts to be more user-friendly to its borrowers. Borrowers still find procedures cumbersome and demanding. In the case of complicated programmes such as NMCPs, Bank lending can be a difficult instrument to ensure the flow of funds in a timely and appropriate manner.

In this connection, the issues relating to Bank procurement remain to be resolved. In the case of malaria control, apart from the generic issues of the need to act more quickly and to simplify procedures, there is the problem of sole source purchasing. In the case of new first-line drugs for the treatment of malaria in chloroquine-resistant areas, it will frequently be the case that there is in practice only one manufacturer in the world who makes the right drug in the right blister pack. Competitive tendering makes no sense in such situations and can lead to the wrong product being purchased. Since the World Bank's commitment to assist with the financing of more expensive anti-malarial drugs in the long-term is especially important, both in relation to the financing of NMCPs and to giving confidence to countries that if they change drugs they will not be left with an unaffordable bill, the need to find new ways of working is especially great.

The World Bank has now made a major and very visible commitment to increase its work and contribution in the field of HIV/AIDS. It is perfectly feasible for a lesser, but equally strong commitment to be made to the RBM Partnership and to malaria control, initially in selected countries and subsequently in a longer list of countries. The External Evaluation Team believes that the RBM Partnership cannot be effective in practice without commitments of this kind from the World Bank and without the effective delivery of those contributions which the World Bank undertakes to make.

3.3.3 UNICEF

As was pointed out in Section 2.3.3, UNICEF has a newfound and much welcomed enthusiasm for malaria control. The question of most importance going forward is what UNICEF's role should be and what pieces of the malaria control challenge UNICEF should especially concentrate on and contribute to. In making this determination, a guiding principle should be to complement the activities of other partners, rather than to compete with them. UNICEF should build on its comparative advantages, which include:

- leadership, advocacy and mobilization for children;
- global procurement capacity (for drugs, but not necessarily for nets);
- advocacy and social mobilization;
- experience in complex emergencies and difficult countries; and
- a strong field presence with over 6000 staff located in developing countries.

UNICEF's strong country presence and great experience with community-based programmes make it an ideal partner to focus on the community and on ensuring demand for and access to preventive and curative services at the community level. This could, and probably should, take different forms in different countries. Social marketing is likely to be a prominent component, as will be working with both public and private providers to ensure good quality service and high access even for the poorest families. In some countries UNICEF could concentrate on the poorest families and work on the especially difficult challenges of access and quality among this group. An additional focus for UNICEF could be supporting countries with their advocacy and communications programmes. Finally, UNICEF could appoint and house the Champion in some countries.

Concerning staffing, the Evaluation Team noted that UNICEF was in the process of strengthening its technical capacity, both in New York and its Regional Offices. This is an essential step towards a more effective role for UNICEF within RBM. It is important, however, not to overlap with or duplicate WHO's technical role. Difficulties in this area have risen in the past in other programmes. UNICEF is arranging inward secondments from CDC, and the Evaluation Team welcomes this development. UNICEF should also consider outward secondments, including most importantly a secondment to the RBM Secretariat.

3.3.4 UNDP

As noted in Section 2.3.4, UNDP has been a silent partner till now. This could continue. Alternatively, UNDP could come back into the partnership with a specific and clearly defined role. The obvious role is working alongside the Bank to elevate malaria in national priority setting and to insert malaria into agreements on poverty-related funding mechanisms. This fits well with UNDP's mandate as convenor of the PRSP process at the country level. The effectiveness of this role in practice will depend greatly on the inclinations of the UNDP Resident Representative in each country. In some cases, for example Cameroon, the UNDP Resident Representative is well prepared for and enthusiastic about this role. It would be unfortunate not to take advantage of this contribution, especially in focus countries.

3.3.5 Bilaterals

The key priority for the role of the bilaterals in RBM is to expand the group of bilaterals that are strongly committed to RBM and which pledge to stay with malaria for the long haul. The continued strong contribution of DFID and USAID is essential, but this must be supplemented by similarly strong commitments from perhaps six other bilaterals. The External Evaluation Team believes that this is possible to achieve in practice, and represents a high priority for RBM on the resource mobilization front.

An especially important commitment to be sought is the commitment of the European Commission. The reasons for the less than complete engagement of the European Commission thus far need to be better understood. Following this, RBM should make every effort to draw the European Commission fully into the partnership and to secure substantial long-term commitments from this source.

At the country level, bilaterals can pick and choose where they focus. The significant partners at the country level will vary among countries. Bilateral partners should indicate to which countries they are willing to commit, and then become an active part of the RBM Partnership in those countries. It is important to make clear to bilaterals that, by making a commitment to RBM, they are not making a commitment to be active in every country where RBM is active, or even to be active in every RBM focus country. This is neither necessary nor desirable. It is in everyone's best interest to encourage bilaterals with limited technical and financial resources to concentrate their efforts on a smaller list of countries.

At the country level, the commitment of bilaterals to long-term support for the costs of malaria control is especially important in the context of new and more expensive first-line drugs. As countries contemplate the change from chloroquine to SP and from SP to more expensive combination therapies (Box 7), they are extremely worried about their ability to sustain the greatly increased costs of these new drug policies. Long-term partnerships with selected bilaterals are essential to give confidence to countries to make the necessary changes in drug policy. Commitments of this kind do not impose an impossible burden on bilaterals. As time passes, the costs of the new combination therapies will fall and the ability of countries to finance these costs from internal sources will rise. The relative contribution of donors to the drug bill will therefore fall through time and may be phased out entirely within a decade or two in most countries. What frightens countries, and is unacceptable in terms of donor/country relations, is a commitment to short-term funding with no guarantee that future funding will be available, even with demonstrated good performance in malaria control.

Finally, bilaterals can be extremely helpful in strengthening the Secretariat by making appropriate secondments. They can also be helpful in offering to provide the Country Champions and to give them administrative and other support facilities.

3.4 Regional Activity

The Evaluation Team examined only the regional activity of WHO in any detail. While UNICEF also has Regional Offices, they were not visited and no inquiries were made into the particular role that they might play in the context of RBM.

The Evaluation Team considered the suggestion that the RBM Secretariat should relocate to AFRO, placing it close to the frontline of the major challenges in malaria control. It was also felt by some that locating RBM in Africa would give recognition to where the burden of disease mainly occurs and would acknowledge the pioneering efforts of AIM as the precursor of RBM. On balance, the Evaluation Team believes that relocation of RBM of the Secretariat to AFRO would not be advisable at this time in the light of several factors.

- ❑ RBM is a global initiative, notwithstanding the fact that 90 percent of the burden is in Africa. Other countries have serious malaria problems and need support and assistance from RBM.
- ❑ The imminent move of at least part of AFRO to Brazzaville will increase its isolation and its difficulty in working effectively. While it is intended to keep the AFRO RBM function in Harare for the time being, this split between Harare and Brazzaville will generate its own set of difficulties and problems.
- ❑ The absence of strong regional equivalents to AFRO (with the possible exception of UNICEF) among the other RBM partners could make the arrangement bureaucratically difficult for the other partners.

The Evaluation Team does believe that AFRO and the Inter-Country Teams that it has created are extremely important to the success of RBM and need to be further developed and strengthened. AFRO and its Inter-Country Teams could be the main point from which ongoing, intensive technical support to countries is provided. This support would focus on the major biomedical, medical and public health issues concerning malaria control. Where communications, finance and resource mobilization are concerned, it may be preferable to locate this expertise within the RBM Secretariat, with support from other partners, particularly the World Bank. One reason for this is that guidance on finance and resource mobilization at the country level requires frequent and close interaction with the headquarters of those partners who are financing malaria activity.

This kind of liaison and interaction is more easily done from Geneva and Washington than from Harare.²⁴

The other relevant regional structures of WHO (EMRO, EURO, PAHO, SEARO and WPRO) must also play their full part in providing adequate, timely and competent technical support to their client countries. PAHO and WPRO already function strongly in this area. EMRO and SEARO may need strengthening. Finally, relations among the WHO Regional Offices, and between them and WHO headquarters, need to be improved. Part of this improvement involves clarifying roles and responsibilities. A second part is ensuring the transfer of information and best practice among regions and to and from headquarters. This latter goal will be facilitated by arranging periodic transfers and secondments, in order that technical staff working in one region can spend time familiarizing themselves with the successes and failures in malaria control in other regions. This cross-fertilization, for example from WPRO to AFRO, could be extremely valuable.

3.5 Prioritizing Country Level Action

The country level is the major focus for Phase II of RBM and success at the country level is the determinant of the success of RBM.

In Africa, intensive working with a selection of focus countries, and the achievement of measurable reductions in the malaria burden in those countries, is the very highest priority. Partners must first come together to agree on the selection of focus countries. As stated in Section 3.2.1, this can either be through a transparent process based on criteria, or through self-selection. In any event, the partners need to know which the focus countries are.

In each focus country, a subset of partners, which will be different in each country, needs to commit to long-term support for the NMCP. Plans need to be finalized; resources need to be made available; and action on a national scale needs to unfold. This action must include a strong emphasis on private sector providers, both of nets and treatment. A monitoring and evaluation system needs to be put in place (see Section 3.10) which can reliably measure a small number of process and outcome indicators.

For countries outside Africa, most will wish to press ahead and make progress in malaria control. RBM will need to be ready and able to support them. Once again, however, some degree of prioritization among countries is appropriate. In most regions, there are a few countries where civil unrest and lawlessness make progress with malaria control impracticable. Such countries should be helped to maintain as much of the fabric of their NMCPs as possible, but they cannot realistically be targets for major external assistance until their situations stabilize. There are also countries in each region whose circumstances make them well suited for a large effort in malaria control at this time. As with Africa, demonstrating strong progress in a few areas is an extremely important goal and will encourage other countries to also take vigorous and effective action.

In the larger countries of Asia, this selective approach should be applied to parts of countries rather than whole countries. This is particularly true in India and Indonesia. Some Indian states and Indonesian provinces are more ready to make rapid progress in malaria control than others. Concerted action in these states and provinces is fully justified. It is also consistent with the development policies of some of the partners: for example, the World Bank's work in India now

²⁴ Another alternative would be to organize technical support to countries in the manner of Stop TB. The Secretariat of the Stop TB Partnership organizes technical support for the 22 high-burden countries falling within its mandate. The WHO Regional Offices organize technical support for all other countries that request it.

focuses on selected states where the policy environment is more conducive to rapid economic and social progress.

3.6 A Pro-Poor Health Systems Approach

As stated earlier, one of the major achievements of RBM in the first three years has been the development of a consensus around a set of priority interventions in malaria control and prevention. The strategy has been to target high-risk populations, and reduce overall rates of morbidity and mortality. However, little is actually known about the ability of such a strategy to target effectively the very poor. This is a problem, since a key rationale which justifies stepped up spending on malaria control activities is its ability to have an impact on poverty reduction, and the attainment of the Millennium Development Goals.

In fact, given the unusually tight correlation that exists between malaria and poverty, it is likely that a focus on high-risk groups is at least a viable first approximation of a poverty-oriented strategy. Nonetheless, there is evidence that resources dedicated to malaria control are not always equitably distributed.²⁵ For example, in parts of rural Tanzania the children from the richest fifth of the population are twice as likely to receive appropriate anti-malarial treatment than those from the poorest fifth of the population. The same situation is likely to be seen elsewhere, and is likely to worsen in countries which are transitioning to more expensive combination therapies. Similarly, a focus on private sector solutions to net distribution may easily result in greater coverage for the general population but not for the very poor. More information is clearly needed, and RBM should be at the forefront of these investigations.

RBM should also be at the forefront of operational research to study optimal ways of designing programmes that disproportionately benefit the poor. For example, in The Gambia a targeted bednet programme benefited poor children more than wealthy children, lowering their rates of parasitaemia from 63 percent to 40 percent, compared to 35 percent to 31 percent. Lessons learned from these and other studies should be shared widely among countries and more broadly within the Partnership.

In the short run, RBM should continue with its strategy of targeting high-risk populations, but it should simultaneously seek to develop innovative programmatic strategies to reach the poor. As new strategies are identified, they must be quickly disseminated and integrated into the malaria control activities of the focus countries. The pro-poor approach can be further reinforced by aggressively seeking to strengthen RBM's ties to the broader health sector planning and reform efforts (for example, the PRSP process may provide a useful framework for pushing this agenda at the country level).

3.7 RBM and the Global Fund

It is fortuitous, but significant, that the recommendations for the strengthening of RBM are being made at exactly the time when the Global Fund is being brought into existence. The challenges faced in general by the Global Fund have been commented on elsewhere and are not the focus of this evaluation. The proper relationship between RBM and the Global Fund is, however, a matter of major concern for this evaluation.

The Global Fund is a financing mechanism. It will not have in-house the capacity to develop programmes, monitor their progress, make technical judgments about complex issues, or in general substitute for the role of RBM. This suggests a natural and productive marriage between

²⁵ This was addressed at a November 2001 Bellagio meeting sponsored by the Rockefeller Foundation in cooperation with the World Bank and WHO on *Working Toward Greater Equity in the Fight Against HIV/AIDS, Malaria and Tuberculosis*.

RBM and the Global Fund. The Evaluation Team is mindful of the fact that a similar marriage may be proposed between the Global Fund and the Stop TB Initiative, and the Global Fund and UNAIDS.

The Evaluation Team was informed of the multiple interactions that have taken place between RBM staff in Geneva and the interim Secretariat of the Global Fund, initially in Brussels and more recently in Geneva. These interactions have been more about technical advice and guidance than about major strategic issues and future relationships. This balance needs to shift.

Box 18 **Changing Malaria Treatment Policies**

Data relevant to changing policy on malaria treatment include the following.

- ❑ Properties of the available alternative drugs:
 - o efficacy (side effects, contraindications, cross resistance, useful therapeutic life);
 - o cost and cost-effectiveness;
 - o availability.

- ❑ Treatment-seeking behaviour:
 - o acceptance;
 - o compliance;
 - o affordability.

- ❑ Capacity of the health system to implement the treatment policy:
 - o public and private providers;
 - o drug management (purchasing, distribution, quality assurance, regulation);
 - o implications for the health budget;
 - o financing options.

These factors are outlined in the framework for developing, implementing and updating national anti-malarial treatment policy prepared by AFRO four years ago, but not yet distributed. Efficacy of alternative drugs has been the main information collected before changing policy. The current interest in malaria combination therapy necessitates the use of a broader framework to choose suitable combinations.

The creation of the Technical Review Panel by the Global Fund, and the requirement that staff working for UN agencies may not be members of the Technical Review Panel, raise some questions. Individuals on the Technical Review Panel may suffer two disadvantages in making judgments about proposals on malaria control from individual countries. Firstly, members of the Technical Review Panel may be insufficiently familiar with programmatic and operational issues, together with the social, economic and political contexts in the countries concerned. Second, even on the narrower technical issues (for example, drug choice or the design of an ITN distribution system) the technical opinions of members of the Review Panel may not be informed by the complex negotiation of technical solutions that goes on in each country. When a particular country decides to move from chloroquine to SP, or from SP to some new combination, this is not based on irrefutable technical evidence indicating one undeniably right decision. It is based on a complex web of negotiations and issues concerning drug resistance, cost, availability, supply, compliance, and so on (see Box 18). Experts sitting in Baltimore, Banjul, Beijing, Birmingham, Bombay or Buenos Aires, are likely to be unaware of these complex technical negotiations in Cambodia, Chad or Columbia, unless they have recently visited that country and

immersed themselves in the complexities of this decision-making. By contrast, a strengthened RBM should be in an excellent position to make technical judgments that are informed by the full range of country-specific context and history.²⁶

Another important dimension of the necessary relationship between RBM and the Global Fund concerns the measuring and rewarding of performance. This is clearly appreciated both by the leaders of RBM and by the leaders of the Global Fund. The Global Fund has, quite rightly, set its sights on disbursement against performance. This follows the pioneering work of GAVI in this field. It is however recognized that setting the correct performance targets and measuring them accurately is an extremely difficult task, and more difficult for malaria than for immunization programmes. A recent paper in the *Lancet* states:

“Performance monitoring and the rewarding of countries for outcomes achieved, a cornerstone of the Global Fund and of many of the recent global initiatives, will also be problematic. Performance indicators for malaria and tuberculosis control exist, but weak country information systems often fail to report them.” (Brugha *et al*, 2002)

The slow progress, some would say failure, of RBM in Phase I to establish a firm foundation for monitoring and evaluation hinders the early work of the Global Fund. It is essential that simple measures of progress in malaria control be agreed, and systems be put in place in priority countries to measure these reliably. The ‘reliably’ part of this also needs a great deal of attention. In the review of the early work of GAVI conducted by Brugha *et al* (2002) the danger of countries artificially inflating their performance in order to receive subsequent funding is clearly spelt out. It appears that some countries are fully intending and preparing to engage in such inflation. The incentives to do so are great.

Lastly, a strategic issue to be worked out between RBM and the Global Fund is the matter of country focus. The Evaluation Team recommends unequivocally that RBM needs to focus on between eight and twelve countries in Africa. Without this there will not be demonstrable progress in rolling back malaria within the next few years. The Global Fund, by contrast, is demand-driven. It receives and considers applications from countries. Some of these applications will come from countries which are also RBM focus countries. Indeed, one of the things that RBM should seek to do in focus countries is to assist in gaining access to increased resources from the Global Fund. However, applications will come from other countries as well. These may include countries where little progress in malaria control is likely in the near future and major investment would be unwise. Notwithstanding this, on paper at least, the applications may seem plausible and well considered. This places the decision-making apparatus of the Global Fund in a quandary.

The recommendation of the Evaluation Team on this matter is that the Global Fund should expect to concentrate most of its funding for malaria in Africa on those countries which have been selected by RBM as the focus or priority countries. The Global Fund should, in addition, look favourably on smaller projects in other countries, where there seems to be an opportunity to create a foundation on which later progress can be built. The political acceptability of this compromise will need to be tested in practice.

3.8 Global Financing Strategies

There is an important distinction between what countries can spend through traditional channels and what they need. It was frequently observed that, although the financial needs for effective malaria control may be great, the availability of funds often exceeds what the public sector can

²⁶ Decisions concerning changing drug policy are especially difficult. In Annex C, we reproduce an article from a newsletter of Médecins Sans Frontières which illustrates this in the case of Burundi. This article also illustrates the need for close technical coordination between RBM Partners and governments.

absorb in the foreseeable future. This, once again, emphasizes the need for contracting out and for vigorous use of the private sector for the provision of both preventive and curative services. These opportunities are being taken up very slowly in most African countries, and there is considerable reluctance on the part of governments to go too far down this route.

The first priority at the country level in financing is to fully mobilize and exploit those sources of finance that are already available. It is pointed out elsewhere in this report that SWAp baskets, funds from HIPC, and funds from PRBS Programmes are large, available in many countries, and typically not being used for malaria control. In addition, in many countries, greater use could be made of IDA funds. It is particularly helpful to have IDA funds available through APLs, with their long-term commitment and inbuilt flexibility.

Box 19 **Gates Malaria Partnership**

The Gates Malaria Programme, now called the Gates Malaria Partnership, was conceived as a collaborative research and capacity development project that could make a significant contribution to international efforts to reduce mortality and morbidity from malaria, especially in Africa. The partnership, funded by a generous award of \$40 million from the Bill and Melinda Gates Foundation, is now in its second year. The Partnership has research and training components.

The research component of the initiative, coordinated through the London School of Hygiene & Tropical Medicine (LSHTM), is directed at the evaluation of new tools for malaria control, including the economic and social implications of introducing new methods of treatment or prevention. A research committee and a panel of referees have been established to ensure full peer review of all research proposals. These must have one senior investigator based at LSHTM but LSHTM staff are encouraged to develop links with existing or new collaborators in malaria-endemic countries. So far twelve major awards have been made. These cover epidemic prediction, trials of combination therapy, including in pregnancy, evaluation of new insecticides for use on nets, evaluation of a new malaria vaccine, a study on increasing usage of ITNs, and another on the economic and social aspects of home management. Nearly all studies are based in Africa.

The capacity development component of the initiative is a collaborative one involving LSHTM, the Liverpool School of Tropical Medicine, the University of Copenhagen, the Danish Bilharziasis Laboratory and groups in Ghana (School of Public Health), Malawi (College of Medicine, Blantyre), Tanzania (National Institute of Medical Research and Kilimanjaro Christian Medical College) and The Gambia (Medical Research Council Laboratories). In each of these countries the National Malaria Control Programme (NMCP) is an important partner. Training centres have been established at each of the African sites. Their brief is to develop innovative training programmes that will help to overcome particular constraints holding up national malaria control programmes. A number of ideas, for example courses for journalists, the better implementation of drug revolving funds, and demographic data collection and use in malaria control, are beginning to emerge. Delivery of courses will be assisted by trainers based in the European centres.

The capacity development programme also has a more conventional doctoral programme. The initial submission to the Bill and Melinda Gates Foundation included a budget for twelve fellowships. Over 300 applications for these fellowships have been received from scientists in malaria-endemic countries. Through use of co-funding, the budget has been stretched to 27 students, nearly all from Africa, but many very well-qualified students have had to be turned down. Post-doctoral fellowships for scientists from malaria-endemic countries have been less popular and many fewer applications have been received. However, a number of strong potential candidates have been identified and interviews for these posts will be held in June.

Bringing the various activities of the Gates Malaria Partnership together has not been easy but this is beginning to happen and the partnership is gaining momentum with the help and support of the international Expert Oversight Committee.

The Global Fund tentatively expects to allocate \$200 million to malaria in its first year of operation. This will more than double the current estimated external flows to malaria control activities. In future years, as the Global Fund grows and its disbursement mechanisms improve, this impact could be even greater. In light of the above, the establishment of a strong partnership between RBM and the Global Fund is essential. It matters greatly for the success of RBM how the Global Fund selects its projects and allocates its resources.

A related and unresolved issue concerns how the major bilaterals will react through time to the growth of malaria funding by the Global Fund. Will they continue in their bilateral support to malaria (increasingly through SWAp baskets and budgetary support) or will they see the Global Fund as the main channel for these contributions? If the Global Fund becomes the main channel, it will put in jeopardy the progress made over the last few years with more collective funding mechanisms through SWAps and poverty-related programmes. The work of the Fund will move the world back towards the projectization of official development assistance and may undermine sound overall financial planning and government ownership of priorities.

Finally, the financing roles of the foundations and the corporate sector are potentially important but still evolving. The Gates Foundation has made a major contribution to RBM, partly through its sponsorship of MMV and MVI, but, more importantly, through the Gates Malaria Partnership. Box 19 outlines this Partnership. In the future, the Gates Foundation and other foundations may choose to support RBM centrally, to support activities which are congruent with RBM, or to support the Global Fund, and thereby contribute to overall efforts to combat malaria. Which way foundations will choose to go is not clear, although early indications suggest a preference for specific activities rather than pooling funds in the Global Fund.

Box 20
Examples of Potential Databases

Technical

- Status of trials of new interventions
- Status of drugs in development

Programmatically useful

- Drug prices at different vendors
- Reports of operations research
- Requests for Proposals (RFPs), Requests for Applications (RFAs)

Country programme and partner activities

- List of partners present or active in countries
- Monitoring information, for example:
 - o Country status of taxes and tariffs
 - o Coverage statistics

3.9 Advocacy and Communication

While the key to improved communication among partners and country programmes will be changes in the structure of RBM to enhance interaction and increase accountability, an improved website that truly served the partnership might offer a partial solution. The current web page is not a means to coordination because it does not provide the necessary information and because partners do not access it frequently enough (Table 6). The solution to both of these barriers is to

include content that partners need. This content might include a set of updated, easily accessible databases on technical and programmatically useful information²⁷ (see Box 20 for examples of potential databases). The responsibility for generating and updating these databases might be distributed among the partners, who have to decide jointly which databases will be most useful. Currently, information about country programmes will most easily be obtained by periodic phone interviews.²⁸ The Secretariat must take the responsibility of ensuring that the website represents the partnership.

Table 6	
Hits on the RBM website	
Origins (domain names) of visitors accessing the RBM website during 2001 (top ten)	
Domain name	Number of requests
Unknown	163,575
International (.int)	73,251
Commercial (.com)	68,792
Network (.net)	66,796
USA education (.edu)	34,316
UK (.uk)	28,604
Non-profit making (.org)	18,739
France (.fr)	13,467
Netherlands (.nl)	11,520
Australia (.au)	11,175
Canada (.ca)	10,179
Organizations accessing the RBM website during 2001 (top ten)	
Organization	Number of requests
Unknown	163,704
Int	73,251
Aol.com	14,958
Ja.net	12,649
Worldbank.org	6,285
Wanadoo.fr	5,447
Novo.dk	5,053
Tg (apparently Togo)	4,492
uu.net	4,455
Lshmt.ac.uk	4,113

RBM must continue advocacy at the global level to consolidate and extend its initial success. At present the most important need is to develop a global advocacy strategy that clearly identifies different potential audiences and the advocacy objective for each (for example, RBM should aim for different reactions from heads of state than from heads of foundations, governments and NGOs), and seeks to address their primary concerns and the factors that constrain or might facilitate the desired result. Beginning this activity will require clarity from the partnership concerning priority advocacy objectives (some possible ones include: reducing taxes and tariffs

²⁷ For those programmes and partners for whom web access is problematic, periodic CD-rom-based updates could be provided.

²⁸ While laudable, the CAT's effort to provide access to country programmes by holding web-publishing workshops for a handful of participants will not solve the problem in the short term.

in all countries, developing global consensus regarding the process of changing first-line drugs and improving drug quality, positioning RBM relative to the Global Fund or strengthening malaria objectives within PRSPs). In addition, RBM must be willing to carry out some assessment of different audiences to identify the most persuasive arguments.

The RBM Advocacy Guide, produced by CAT, is a useful document for orienting country programmes about advocacy, but it alone is insufficient to enable inexperienced programme managers to carry out effective advocacy. As with global advocacy, the first step is a decision concerning the advocacy objectives; the next, development of a comprehensive strategy. One possible solution is for RBM to provide technical assistance to countries from WHO or other RBM partners, such as UNICEF, with its long history of successful advocacy and social mobilization. Another possibility, preferable because less time-limited than external assistance, would be to encourage national programmes to engage public relations and advocacy professionals from the local private sector.²⁹

RBM can also help national programmes by ensuring that lessons learned in one country are accessible to others (this is a good example of programmatically useful information that could be published on the web). Finally, RBM could develop generic materials that countries could adapt for their own use. Two types of generic material would be useful: interactive models that use local data to help officials understand the implications of different kinds of decisions,³⁰ and informational materials that countries could adapt. The communications unit has begun to consider developing this second type of generic material.

Good national promotion can increase the rate of adoption of ITNs, IPT and prompt, effective treatment. Even when districts bear the major responsibility for implementation, promotion at the national level will raise awareness of malaria and of RBM interventions. In addition, hearing and seeing promotion of malaria control activities heightens their importance for all those responsible for their provision, both public and private. The Evaluation Team strongly believes in the importance of involvement of the private commercial sector (shopkeepers and drug sellers) as distributors and providers of ITNs, insecticide and treatment. Promotion of commercially available products and services is an important role for the public sector in public-private collaborations. Finally, the process of developing and implementing a comprehensive communications strategy will assist NMCPs in clear and strategic thinking as they evolve their CSPs.

3.10 A Global Research Agenda

For the success of RBM in Phase II, a productive research network needs to be established, focusing on practical operational and clinical questions. Whether RBM should establish and manage such a research network, or rely on TDR or other mechanisms is open to question. In either case, it is important that a focused and prioritized research agenda is drawn up, that the studies get done, and that the results are widely disseminated and put into practice.

Today, some of the bigger and more obvious applied research questions are not receiving the attention that they deserve. For example, there are major unanswered questions concerning the distribution, use and re-treatment of ITNs. A collaborative network of researchers in this area needs to be established. ITNs are hardly used in India at all. Is it possible that India can control

²⁹ A relationship with a local public relations firm would also be helpful when national programmes are faced with negative media, whether it arises from malicious rumour or concerns actual adverse events such as the apparent low quality of one of the first batches of SP included in the essential drug kits in Tanzania.

³⁰ USAID, through various subcontractors, developed a series of such models that have been effective advocacy tools for birth spacing/family planning, vaccination and vitamin A programmes.

malaria without them? Probably not. This suggests a major push for research and monitored intervention on this subject in India and similar countries.

As noted in Section 3.7, the Global Fund will more than double the international financial flows for malaria even in its first year of operation. The Global Fund has made a decision not to fund research. Bilateral donors may continue their direct country support for malaria projects, or increasingly channel their support through the Global Fund. If they do the latter, funds for research may decrease. This needs to be avoided. The bilateral agencies should be asked to make a strong commitment to fund operational research on malaria, especially in the focus countries. Similarly, there should be a strong commitment from the World Bank to encourage a proportion of the proceeds of IDA credits to be used for research and research capacity strengthening.

3.11 Monitoring and Evaluation

As made clear in Section 2.8, the progress with M&E in the first few years of RBM has been disappointing. There is an urgent need to get an effective system in place that can track a few selected process and outcome indicators in a selection of countries, and which can construct plausible global estimates of the burden of malaria on an annual or biannual basis.

The existing tension between proponents of strengthening national monitoring and evaluation systems and those favoring the rapid development of a global database of key indicators to track progress of the overall initiative must be reduced. Some data are sorely needed for international comparative purposes. Some data are needed at the country and district levels to inform local decision-making. Sometimes the same data will serve both purposes. Often they will not. Philosophical differences should not be allowed to interfere with RBM's progress in the area of monitoring and evaluation.

The Secretariat's first priority should be to build an effective system for international comparative purposes. This can be done by strengthening countries' capacity in data collection around a standard set of indicators using standardized ways of measuring them. This should be a small set of indicators, perhaps not more than five. Without a reliable set of indicators, RBM cannot credibly describe global trends, and this will limit its ability to conduct a global campaign for additional resources. In this scenario, everyone loses. Thus, the creation of an international M&E system should be seen as supportive to countries' own efforts, and not as undermining them by imposing international requirements. Individual countries will benefit from having a *small number* of reliable measures of progress on malaria, since these measures may improve the country's ability to raise money in support of its national programmes and inform some types of policy decisions.

Only as a secondary priority should RBM provide technical assistance to developing countries' capacity to undertake monitoring and evaluation of programmes at the national and district levels. This is compatible with a highly streamlined view of the Secretariat's responsibilities. When and if RBM does engage in this effort, it should do so with a sophisticated understanding of how the data are to be used *locally* to inform policy and decision-making. The indicators relevant to this effort will likely be greater in number and more variable than indicators selected for international comparative purposes. They will be highly sensitive to local conditions and programmatic requirements, and may be, though not necessarily, strictly comparable even with similar data collected by other countries. In some cases, WHO's Malaria Team, UNICEF and some bilateral agencies may be better positioned than the Secretariat to help countries in this effort.

The recommendations from the separate M&E study are attached at Annex H. The External Evaluation Team endorses these recommendations with the following additional observations:

- ❑ The Secretariat's M&E enterprise needs strong and competent leadership from WHO headquarters. This leadership role could be located either in the Secretariat or in the WHO Malaria Team.
- ❑ Although the priority is to get standardized measures routinely underway in as many countries as possible, it may be advisable to focus on a selection of countries over the next two to three year period. Obtaining reliable and standardized data from, say, approximately 20 countries by 2005 would in itself would be a huge achievement and step forward from the current situation.
- ❑ The Secretariat will not need to conduct a new and separate survey effort to collect mortality data from most countries. Large-scale, internationally funded surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) can provide mortality information more efficiently.

3.12 Human Resources and Capacity Development

As pointed out in Section 2.6, human resources and capacity constraints greatly limit RBM's ability to make progress in many of the most seriously affected countries. There are no easy or short-term solutions to this challenge.

It must be recognized that skills development is less critical to capacity building than low salaries, poor working and housing conditions (particularly in rural areas), and limited opportunities for career growth. Since these problems affect the entire health sector, and indeed the public sector as a whole, they will not be easy for RBM to address in isolation. An awareness of, and sensitivity to, the broader environment will be needed. At the global level, it may make sense for RBM to work in collaboration with other Partnerships and programmes, to coordinate a strategic response to the crisis.

Meanwhile, there is a need for getting activity underway at the country level. The Strategic Plan for Capacity Development rightly proposes to focus on a small number of countries in the initial stages. Countries may choose to prioritize different elements of the Strategic Plan. Some countries will wish to conduct assessments of human resource requirements for the entire health sector. In other countries, programmatic assessments will drive human resource requirements (e.g. home management, operations research). The solutions that are proposed to address the gaps identified should be examined carefully for their compatibility with broader policy efforts to address the human resource constraints within the health care sector as a whole.

The Evaluation Team emphasizes three approaches that are particularly relevant for the Secretariat's work in getting activity underway at the country level. Firstly, where training is concerned, the Evaluation team applauds efforts to broaden training approaches³¹ to include non-technical areas such as management, finance, communications, the social sciences and related areas. These efforts should continue, but they should not take place in isolation. All health sector programmes require greater expertise in these areas. It makes little sense for RBM, or Stop TB, or EPI to address these generic areas on its own. It is a combined approach that countries need.

Secondly, the human resources and institutional capacity constraints in many of the most affected countries will remain very severe for the next decade at least. Malaria will not be controlled in practice by relying heavily on over-stretched human resources and institutional capacity that lie in the public sector. As argued repeatedly, the mobilization of private sector responses is essential for the effective control of malaria, and human resources and institutional capacity constraints

³¹ To improve quality and relevance, future training programmes should incorporate work performance evaluations of staff, and additional follow up. There need to be effective and reliable ways to determine whether or not existing training modules improve performance.

simply add one further element to this argument. If malaria control is left to governments to plan and execute, malaria will not be controlled.

Thirdly, the Evaluation team recommends heightening the focus on ‘best practice.’ Best practices, or lessons learned, can be gleaned from other programmes (e.g. ACTMalaria – the Asian Collaborative Training Network for Malaria) or from individual countries. For example, Ghana has completed human resource assessments at regional and district levels. These assessments have been used to strategically identify the human gaps and fill them with qualified staff. In addition, Ghana has developed an incentive scheme for qualified health staff in rural posts. It includes housing, transportation, salary increases based on meeting performance targets, and social recognition within communities for achieving standards of excellence. It is difficult for countries to learn from other countries, without the assistance of a clearinghouse or intermediary. The Secretariat can usefully play such a role.

3.13 Complex Emergencies

RBM-CE differs from the main body of RBM in three important ways: its array of donors, its key implementing partners, and its potential array of technical interventions. Each of these factors contributes to a growing fissure between RBM-CE’s organizational culture, priority setting, and day-to-day operations and those of the broader RBM Secretariat. For these reasons and others which will be explored more systematically in the Waldman evaluation report on Complex Emergencies, RBM-CE appears to have more in common with the newly formed Control of Communicable Diseases in Complex Emergencies Unit (CCDCE) within the Communicable Diseases cluster of WHO than it does with the RBM Secretariat. The CCDCE seeks to identify the major causes of communicable disease morbidity and mortality in emergency settings; to garner the technical resources of WHO and its operational partners in emergencies (including NGOs) in order to address these problems; to develop norms, standards and guidelines; and to suggest and sponsor research. The Evaluation Team therefore recommends that RBM-CE be spun off from the main body of RBM and that it be re-located to the CCDCE of the Communicable Diseases cluster of the WHO.

3.14 Achieving the Goals, Modifying the Goals, Rejecting the Goals

There is a need for RBM to revisit the goals and re-specify them in a way that is unambiguous and has the full support of all partners, including the most affected countries. At present, the goals are conflicting (for example, between the Abuja goals and the MDGs), unclear (for example, the MDGs), specified differently on different occasions (for example, the Abuja goal is sometimes stated as halving the malaria burden by 2010 and sometimes as halving malaria mortality by 2010) and over-ambitious (Box 21). On top of this, there is no system in place at present to know when and whether these goals will be achieved. A wider question is, “Does anyone believe in these goals anyway and, if not, should RBM persist in advocating them?” This is a vexed question which is always raised when ambitious international targets are set. The pros and cons of having such targets have been well rehearsed.

What really matters is measurable progress in a significant number of highly affected countries. If, for example, such progress can be achieved in a dozen countries in Africa by 2007, this will be a dramatic and remarkable achievement. It should not matter whether it puts Africa on track for halving mortality by 2010.

On balance, the Evaluation Team recommends setting more realistic and more precisely defined goals. These should be couched mainly in country terms rather than global terms. It might also be useful to have goals for each region. Where EMRO should set its sights and where AFRO should set its sights should be very different, and to specify this could stimulate appropriate

action and commitment region by region. Finally, it is important for RBM not to set itself up to failure by specifying goals that can clearly not be achieved.

Box 21
Unrealistic Targets in Africa

In the year 2000, RBM AFRO set an ambitious sequence of targets for its region. They included the following.

By 2001:

- ❑ 50 percent of 42 malaria countries in the region will have introduced RBM and developed plans of action;
- ❑ 80 percent of the 42 countries will have increased coverage of ITNs to 25 percent.

By 2005:

- ❑ 50 percent of households in targeted districts will have at least one ITN.

By 2010:

- ❑ all countries will be fully implementing RBM;
- ❑ malaria morbidity and mortality reduced by 50 percent from levels in 2000.

By 2015:

- ❑ malaria mortality reduced by a further 50 percent and morbidity by a further 75 percent.

The 2001 targets did not come close to being achieved, and probably will not be until 2005 or later. In addition, most people familiar with malaria in Africa do not believe that the 2010 or the 2015 targets can be achieved. If this is true, these targets should be revised.

Chapter 4

Roll Back Malaria in 2007

This chapter explores briefly a vision for Roll Back Malaria in 2007; in other words, five years hence. It is important that RBM partners, and their senior management and staff, share this vision, or some agreed modification of it. The vision contains four main statements:

- we shall decrease the burden in some of the most seriously affected countries;
- we shall reduce the domain of the endemic;
- we shall make effective use of new tools and technologies; and
- we shall ensure sustainable finance.

These are briefly discussed in turn.

4.1 Decreasing the Burden

Demonstrating a significant reduction in the global burden of malaria by 2007, five years from now, is the absolute and overriding priority for RBM. Since 90 percent of the global malaria burden is in Africa, Africa must be the major focus for the efforts of RBM. As argued above, eight to twelve African focus countries must be selected and reductions in malaria of public health significance must be achieved and demonstrated in those countries by 2007. This is perfectly possible; we have the tools, we have the resources, we have excellent and committed staff, we just need to do it.

While working with the focus countries in Africa, RBM also needs to work with a group of other African countries which could make good progress on a slightly slower timetable. The emphasis in this second group will be to demonstrate achievement at a local level and to prepare for major national programmes.

Outside Africa, some countries are making significant and steady progress in controlling malaria and this should be encouraged and sustained. Other countries are not and intensified assistance to them is appropriate. Achievements in malaria control outside Africa are all of great importance to the countries concerned. They assist in the reduction of the global burden, they demonstrate success, they advance scientific understanding and they raise morale.

The counterfactual, namely that we fail to reduce malaria in Africa by 2007, is extremely worrisome. If we cannot demonstrate success a decade after the birth of RBM, we are in danger of slipping back once again into despondency and fatalism concerning malaria. It will be hard to sustain political, financial or community commitment in the face of another major failure. This must not be allowed to happen.

4.2 Squeezing the Endemic

The malaria endemic has borders. Some of these are defined by latitude and longitude, and others by altitude. Malaria on the borders of the endemic tends to be unstable and not of the most intense

holo-endemic form. An exception to this is Vanuatu, which represents the eastern-most extremity of the endemic in the Pacific.

Attacking malaria at the edges of the endemic has a number of significant advantages. Typically – again Vanuatu is the exception – establishing effective control and even eradication in these zones is easier because of the unstable nature of transmission. Also, declaring an area completely free of malaria provides a special boost to morale, both locally and globally, and is also a great benefit to the local population.³²

Careful consideration should therefore be given to programmes which would greatly control or eliminate malaria from:

- regions of the Sahel (squeezing the northern border);
- South Africa (squeezing the southern border);
- selected upland areas in east Africa and elsewhere (pushing the endemic downhill);
- and
- Vanuatu.

Vanuatu is a special case. It has serious holo-endemic malaria on most islands. It has, however, achieved eradication from two islands: Aneityum and Tongoa. This success could be replicated in other islands and Vanuatu can be made malaria-free. This would be a demonstration of the power of current tools to achieve success. It would also be a considerable boost for the people and economy of Vanuatu. For example, Vanuatu has few natural resources and tourism could receive a major boost as a result of malaria elimination.

4.3 Using New Tools

One of the original justifications for the creation of RBM is that it would provide an incentive for research into new tools for the control of malaria. The products of this research could be rapidly tested and, if successful, applied on a wide scale. This gives researchers confidence that there is a rapid potential application for their discoveries. It gives companies the confidence that there are substantial markets for new products. This dimension of RBM, especially that relating to markets, has been further strengthened by the creation of the Global Fund. The message to industry is that, if there is a new product which is useful, it will be bought and used on a large scale.

It is essential to ensure that this is in fact occurring in practice. NMCPs have traditionally been conservative in their choice and use of technologies and interventions, and slow to change. It has proved extraordinarily difficult to change from one insecticide policy to another, or from one approach to the distribution and financing of bednets to another, or from one first-line drug to another. In Phase II, it must be possible for countries, with the help and support of RBM, to be more nimble in trying, and adopting or rejecting, new technologies and new approaches. Where the data on cost and effectiveness demonstrate that the new approach is justified, countries, with the support of donors, must be willing to take the plunge and have confidence in the long-term availability of the resources necessary to sustain the new approach.

4.4 Ensuring Sustainable Finance

At present, governments do not trust donors. They have good reason for this distrust. Donors are fickle. They encourage certain priorities and policies this year, and different ones next year. They commit finance through short-term projects, and at the end of those projects there is no guarantee

³² The eradication of malaria from southern Europe in the 1950s and 60s is a good illustration of the tremendous boost that is achieved by such an outcome.

of continued support for those activities. This situation has improved as a result of the growth of generic, rather than project funding instruments. Particular examples are health sector finance baskets created in the context of SWAs and the various poverty-related budgetary support mechanisms which have recently proliferated. These mechanisms hold more promise for the availability of sustained external support for agreed priorities that are poverty focused.

More is still needed, however. Both the scale of funding and its sustainability remain in doubt. The control of malaria in the worst affected countries is an enterprise measured in decades not in years. 2030 would be an optimistic target for the achievement of substantial control across most of Africa. Long-term financial commitments are therefore an essential ingredient, especially as countries move to more expensive diagnostic and therapeutic technologies.

Scale also matters. If the estimates of the Commission on Macroeconomics and Health are approximately correct, per capita spending on malaria must increase several-fold to ensure increased levels of coverage in terms of both treatment and prevention. By 2015, per capita spending must rise to approximately \$0.90 per person per year to meet the Abuja targets. (The comparison with the Abuja targets is not exact. The Abuja targets were set for 2010, whereas the CMH figures which reflect target coverage rates set by the international community were estimated for 2015. Also, the CMH assumed utilization rates of 70 percent, instead of the 60 percent coverage projected by the Abuja targets). In total dollars, the CMH estimates that spending on malaria in low-income and selected middle-income countries must increase by \$4.4 billion by 2015 to meet the Abuja targets.

In a particular country, a group of partners needs to come together with the government and shake hands on a two- or three-decade collaboration to control malaria. This is a deal with conditions. Governments must promise to allocate sufficient national resources, give malaria sufficient priority, and achieve collectively agreed milestones. Partners must pledge to provide, in a prompt and user-friendly manner, the technical and financial resources needed to ensure that the job gets done.

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**Final Report of the
External Evaluation of
Roll Back Malaria**

Annexes

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Annex A

- 1. Letter from Dr. Samba and Dr. Feachem to Panel of Experts, May 1996**
- 2. Attached hypothesis**
- 3. Revised hypothesis based on responses from Panel of Experts, September 1996.**

May 28, 1996

Dear ...

Despite many decades of control efforts, malaria remains a leading cause of illness, death, suffering, and poverty in Africa. For reasons that have been much discussed and written about, the traditional armory of preventive approaches is not being fully or consistently used in the most affected areas. New weapons are becoming available, and there is much current interest in the effectiveness of impregnated bednets.

In the medium term, an effective malaria vaccine is anticipated and its widespread utilization will undoubtedly assist in the control of this disease.

The WHO Regional Office for Africa and the World Bank are interested in exploring a hypothesis (which we attach) with experts in health and development in Africa. WHO and the World Bank are prepared to be advised by Experts on how to intensify malaria control activities in Africa and to seek views on the most appropriate policy and approaches for reduction of malaria burden under the current economic and social environment.

The purpose of this letter is to invite you, a known authority and expert in this field, to express your opinions about the attached hypothesis and related matters. What we seek is five pages of your frank personal thoughts on how it would be best to move forward internationally and nationally on malaria control in Africa. In particular, we would like your review and commentary on the hypothesis. If you agree with it, please tell us why. If you disagree with it, please tell us why and please also propose an alternative hypothesis (which might be that we can do little other than 'business as usual').

We hope you will be willing to contribute your wisdom and experience to this international brainstorming process. We attach a list of the others who have been invited to assist us in the same manner. We will appreciate receiving your thoughts on the subject by June 30, 1996. We will then assemble all the opinions received and come back to you with a proposed next step.

As you will appreciate we are in a very exploratory mode. We do not have a firm position: we do not know where this process will lead us: and we seek the best advice and opinion before making up our minds on these matters.

We send you our personal thanks for taking the time to study this letter and hope that you will be willing to assist us in the manner requested.

With best regards,

Yours sincerely,

Dr. Ebrahim M. Samba
Regional Director
WHO Regional Office for Africa

Dr. Richard G.A. Feachem
Senior Adviser
World Bank

Attachment: Hypothesis

The Hypothesis

The hypothesis concerning malaria in Africa is contained in six statements.

1. Notwithstanding the potential of new tools (such as impregnated bednets in the short-term and a malaria vaccine in the medium-term) a 'business as usual' approach to malaria control in Africa will probably mean that by the year 2050 this disease continues to be a major cause of ill health, death and suffering.
2. There is a potential for a large, long-term, focused initiative to accelerate the pace of malaria reduction.
3. This initiative might operate on a focused geographical basis, selecting initially a small number of areas (perhaps three or four) where rapid progress in malaria control is technically feasible. The initiative would start by establishing effective malaria control in these areas and then move systematically outwards from them to eventually embrace the whole continent.
4. An important purpose of this initiative would be i) to strengthen and sustain ongoing high level political and social commitment both in Africa and among the OECD nations to the task of malaria control and ii) to achieve concrete results in reduction of malaria burden by using effectively the tools available (disease management and wide use of personal protection with bednets) at health services and community levels.
5. The existence of an African malaria initiative would be an incentive to well-focused malaria research investments leading to new products and tools which could be rapidly tested and applied in major ongoing control programmes.
6. Any such initiative would need to take a 30-year time horizon and set a modest goal for the year 2010, a more ambitious goal for the year 2020, and achieve malaria control across Africa by the year 2030.

May, 1996

Revised Hypothesis

The hypothesis concerning malaria in Africa is contained in six statements.

1. Notwithstanding the potential of old and new tools (impregnated bednets in the short-term and a malaria vaccine in the medium-term), the inappropriate application of these tools, a 'business as usual' approach to malaria control, and a lack of action in many countries while awaiting a 'magic bullet' will probably mean that by the year 2050 this disease will continue to be a major cause of ill health, death and suffering in Africa.
2. There is an urgent need for a large, long-term, focused initiative to enable significant and sustained malaria reduction. This initiative should offer flexibility rather than a blueprint and operate on a programme approach with strong political commitment and under strong regional and local leadership.
3. This initiative might operate on a focused geographical basis, selecting initially a small number of areas (perhaps three or four) of similar socio-ecological settings where rapid progress in malaria control is technically and politically feasible. The initiative would start by establishing effective malaria control in these areas and then move systematically outwards from them to eventually embrace the whole continent.
4. An important purpose of this initiative would be: i) to strengthen and sustain ongoing high level political and social commitment, both in Africa and among the OECD nations to the task of malaria control, ii) to foster meaningful community participation and the involvement of the private sector and NGOs and iii) to achieve concrete results in reduction of malaria burden by using effectively the tools available (such as disease management and wide use of personal protection with bednets) at health services and community levels. Further effectiveness of the initiative could be ensured through i) improved capacity of health systems addressed in part by significant training of personnel to work in the malaria programmes, ii) integration of initiative into existing health delivery system and applicable 'special programmes' at the district level and iii) a combination of horizontal and vertical delivery.
5. The existence of an African malaria initiative would be an incentive to well-focused malaria research investments leading to new products and tools which could be rapidly tested and applied in major ongoing control programmes.
6. Any such initiative would need to take a 30-year time horizon and set a modest goal for the year 2010, a more ambitious goal for the year 2020, and achieve malaria control across Africa by the year 2030.

September 18, 1996

Annex B

Highlights from the RBM Internal Review Final Report

Communications and Advocacy

Successes

Placed malaria on global political agenda
 Increased funding for vaccine development and malaria research
 Included malaria in Global Fund to Fight AIDS, TB and Malaria (Global Fund)
 Supported resolution of DDT controversy
 Removal of taxes and tariffs from net materials and insecticides

Future Challenges

Support to communications and advocacy at country level
 Strengthen communications capacity at regional and country levels
 Enlist expertise of private sector
 Greater use of out-sourcing

RBM Partnership/Institutional Arrangements

Successes

Engagement of a wide number of partners
 Increased support from USAID, Asian Development Bank (ADB), Japan International Cooperation Agency (JICA), and World Bank
 Completion of strategic plans in more than 15 countries
 Development and broadening of country partnerships at the country level

Future Challenges

Separate Secretariat role from WHO internal structures
 Improve Secretariat's accountability to the Partnership
 Improve pace of activity at country level
 Greater commitments by partners at all levels
 Proactive engagement of NGOs and business community
 Converting 'loose ties' into commitment and responsibility for country action
 Define and strengthen WHO regional activities
 Clarify regional role of linking partnerships to the global level

Capacity Development

Successes

Production of capacity development strategy
 Dissemination of WHO training materials
 Innovative approaches to training

Future Challenges

- Greater priority to capacity development within WHO
- Broaden technical training (including managerial, advocacy and partnership skills)
- Improve planning and handling of consultancy assignments
- Identify specific capacity gaps at country level

Technical Support/ Research and Use of Evidence

Successes

- Progress in prioritization of effective interventions
- Prominence to drug policy issues
- Increased collaboration with IMCI in Africa
- Improved linkages between research and malaria control at global, regional and country levels
- Focus on high priority research areas, such as combination therapy trials
- Emphasis on research related to field operations and delivery of interventions

Future Challenges

- Work more closely with other agencies to improve and develop technical consensus
- Reconsider the Technical Support Networks
- Draw on technical expertise of other partners
- Improve responsiveness to changing country needs
- Identify high priority areas for research
- Greater emphasis on health systems and social and economic research

Monitoring and Evaluation

Successes

- Development of a Global Framework for Monitoring Progress
- Collection and analysis of baseline data begun in 16 African countries

Future Challenges

- Avoid duplication of data collection efforts
- Achieve stronger consensus around M&E operations
- Develop rules for notification of malaria epidemics
- Obtain accurate baseline for measuring RBM progress

Resource Mobilization and Administration

Successes

- Mobilized seed-corn funding to jump-start action at country level
- Development of a workplan for increasing country capacity

Future Challenges

- Focus on the PRSP process
- Improve coordination with country planning cycles
- Investigate new opportunities for working with the Global Fund
- Mobilize private sector resources
- Mobilize local resources and examine linkages with other partnerships

Annex C

(For illustrative purposes only – the Evaluation Team did not conduct an independent assessment of the Burundi example)

Drug Wars in Burundi

An extract from the February 6, 2002 edition of
Access News

The newsletter of the Campaign for Access to Essential Medicines of
Médecins Sans Frontières

MSF in Burundi – thrown out for flouting ineffective treatment protocol

In October 2000, Burundi was devastated by a malaria epidemic worse than it had ever seen: almost 3 million people were infected within a six month period and thousands died. MSF, which has a long history of working in Burundi, immediately set up an emergency response to deal with the outbreak. But the toughest battle was not conducted against malaria itself: MSF staff spent months arguing the nature of the treatment protocol with national authorities.

When the epidemic started in October 2000, Burundi's national protocol recommended chloroquine for first-line malaria treatment, and Fansidar® (generic name sulfadoxine-pyrimethamine) for second-line treatment. From the start, the MSF team on the ground suspected that chloroquine would be ineffective, given the high levels of resistance already recorded in the region. The team suggested using a combination based on artesunate, a faster-acting more potent drug, but were refused by national authorities. All the same, they began treating children with an artesunate combination at the nutritional centre in Ngozi, with the tacit understanding of regional authorities.

In an effort to better understand the dynamics of malaria in Burundi, the government carried out resistance testing in early 2001 and organized a consensus meeting with WHO and other partners to discuss the results. The studies conducted by MSF were excluded because the government claimed that they had not followed the official protocol. But they may have been excluded because the results were particularly telling: in the province of Kayanza, for instance, resistance to chloroquine was 100 percent, resistance to Fansidar® 74 percent, and resistance to a combination of both drugs, 57 percent. Although all studies showed resistance levels higher than 25 percent - the level at which WHO recommends a switch in first-line treatment – the Ministry of Health (MOH) decided to adopt a 'transition' protocol with Fansidar® as first-line treatment, quinine as second-line, and Coartem® (a fixed dose combination of artemether and lumefantrine) in case of epidemic only.

MSF, once again, protested against this decision and increased the pressure on the Ministry by announcing it was introducing artemisinin drugs into all its programmes in Burundi. Colette Gadenne, head of the MSF mission, publicly challenged the Minister of Health on his refusal to authorize the organisation's use of artemisinin derivatives even though they are available in most private pharmacies in Burundi and prescribed to patients who can afford the commercial price. The government swiftly revoked Ms. Gadenne's credentials and halted the team's activities in the province of Kayanza for a period of two months. MSF was also threatened with legal action if government edicts, including treatment protocols, were not followed in the future.

Beyond the complexities of relations with national authorities, this story is a good illustration of the difficulties and controversy surrounding the issue of malaria treatment protocol change. MSF believes that switching to a protocol containing artemisinin derivatives is critically important in order to effectively treat patients with malaria. Many countries are ready to make the change in protocol, but cannot implement it because of the increased expense of purchasing newer, more potent medicines. Chloroquine costs as little as \$0.10 per dose, while a combination containing an artemisinin derivative, such as Coartem[®], costs a minimum of \$2.20 per adult treatment. It is therefore essential that international donors support governments that are ready to make the switch, especially countries such as Burundi that face periodic epidemics.

By Caroline Livio and
Philippe Ribeiro

Annex D

Malaria in India

(Extracted from the Report of the Mid-Term Review Mission for the World Bank/India Malaria Control Project)

Currently, the incidence of malaria infections in India is declining, and is lower than it has been in any year since 1971. The incidence of confirmed malaria infections in the year 2000 was 2 per 1000 persons per year, which represents 1,914,000 cases. Of these confirmed infections, 52 percent were *Plasmodium falciparum* (987,000 cases, annual incidence 1 per 1000 persons) and the remainder *P. vivax* (927,000 cases, annual incidence 0.95 per 1000 persons). Infections with *P. malariae* are only occasionally diagnosed. Deaths from confirmed malaria were estimated at 872 in the year 2000, giving an annual incidence of 0.9 per 100,000 persons. The true numbers of infections and deaths from malaria are much higher than the numbers of cases detected and confirmed by the public health care system. Estimates of 15 million new cases (incidence of 15 per 1000 per year) and 20,000 deaths (21 per 100,000 population per year) have been proposed.

After the malaria eradication campaign began in India in 1953, the number of cases fell to its lowest level of about 100,000 cases in 1965. In the late 1960s and early 1970s, the incidence began to rise steeply, particularly for *P. vivax*, reaching a peak of 11 cases per 1000 persons per year in 1976. Intensification of control efforts brought the incidence down to around 2 per thousand in 1987, but it has proved difficult to maintain it at or below this level. There was a significant increase in cases in 1995-6 and a second smaller increase in 1999. *Plasmodium vivax* caused the majority of malaria cases until very recently (1999) when incidence of the two species became about equal. This change in proportion of the two species was due more to decline in *P. vivax* than increase in *P. falciparum* incidence.

The control strategy adopted in 1953 was widespread residual spraying of houses with DDT. This continued to be the mainstay until 1995, when the Malaria Action Plan put more emphasis on early case detection and treatment by outreach workers, focal spraying in high-risk areas, and prediction and containment of epidemics. The insecticide used for house spraying was changed to other insecticides in some areas when resistance to DDT was demonstrated, but DDT is still widely used in India for malaria prevention. Impregnated mosquito nets have not yet been introduced on a large scale in India. The first-line drug for malaria treatment is chloroquine in all except a few areas where chloroquine resistance has been demonstrated. Primaquine is also given to all confirmed cases (except pregnant women), as a one-day gametocytocidal dose to *P. falciparum* positives and as a five-day course to *P. vivax* positive cases.

Malaria is most common in the northeastern states and in the belt of central states stretching from Rajasthan, Gujarat and Maharashtra in the west to Orissa and Andhra Pradesh in the east. Orissa state, which has about 3 percent of the country's population, accounts for about 20 percent of the country's malaria cases and 50 percent of the country's confirmed malaria deaths. Malaria, particularly *P. falciparum*, is most prevalent in the tribal upland areas where the incidence has changed little in recent years. In urban areas, malaria is a serious and increasing problem.

Annex E

Slow Disbursement in India

In September 1997, the World Bank approved a \$120 million IDA credit for malaria control in India. The closing date for this project is March 2003. As of November 2001, only one quarter of the available funds had been disbursed. This project is by far the largest World Bank loan to malaria control ever.

The project focuses on implementing RBM strategies in 100 districts in seven states, having a total population of 62 million people. The particular emphasis of the project is:

- early detection and prompt treatment;
- selective vector control;
- use of impregnated bednets;
- epidemic response; and,
- institutional strengthening.

The selected districts were ones in which malaria incidence was high, the proportion of *P. falciparum* was over 30 percent, and at least a quarter of the population were from ethnic minorities.

The project has improved early detection and treatment, decreased use of DDT, maintained the surveillance system, and made some recent progress in decentralization. Overall, however, the project has not been successful. Particular problems include:

- there has been little progress in shifting the traditional programme of residual spraying of houses with DDT to more selective and appropriate approaches to vector control;
- there has been very little progress with ITN use in India in general, or within this project;
- the ability to detect and control epidemics of malaria remains weak;
- institutional capacity for malaria control at the state level is very deficient and has not strengthened greatly; and,
- there has been little activity in the field of community education.

The World Bank India Project experience illustrates the need for locally differentiated approaches, especially in large countries. The appropriateness of different mixes of interventions varies across India. The choice of both drugs and insecticides also varies in line with different resistance patterns. In addition, some states, such as Gujarat, have moved ahead vigorously with effective malaria control activities while other states, such as Orissa, lag behind. Orissa is now responsible for 20 percent of all reported malaria cases and 50 percent of deaths in India. There is a need for different responses in different states, both by the national government and by external RBM Partners.

Annex F

International Resource Mobilization and Financing of RBM

The work of the Evaluation Team on RBM financing is merely a first step to construct a picture of the resource flows. Prior to this evaluation, information of this kind was not mobilized and reported to the Partners. More work is necessary to obtain a complete and accurate picture.

Assumptions and Data Deficiencies

A number of Partners have not organized their accounting systems to facilitate estimating international financial flows for malaria. We have no data on how much money is mobilized by country governments and individual households in malarious countries. The most difficult aspect of estimating annual international flows relates to the level of disbursement from the World Bank and other regional development banks; information regarding disbursements from health and other project loans is difficult to trace to specific activities.

From bilateral donors such as DFID and USAID, most of the financial information is based on project funding levels, which may not reflect actual disbursements for action against malaria. For example, USAID may fund technical assistance projects for health communication or IMCI which may make a considerable contribution to malaria control, but none of the investment will show up as being for malaria. In addition, the project may not have a life of only one-year. Thus expenditure on malaria may actually occur over a longer period than the year in which the funds are allocated to a particular implementing contractor.

A number of assumptions were required to estimate annual financial disbursements from bilateral and multilateral sources. High and Low estimates resulted from these various assumptions for several of the main partners. For both the Africa Development Bank and the World Bank, similar high and low rates of disbursement have been used from the portfolio of health and other projects having a component addressing malaria. The assumed disbursement rates for the development banks were as follows: a) years 1 and 2 (high) 10 percent of the loan funds each year, and (low) 5 percent, b) years 3 and 4 (high) 20 percent of the loan funds each year and (low) 10 percent, c) year 5 (high) 30 percent and (low) 15 percent, d) year 6 (high) 10 percent and (low) 15 percent, years 7 and 8 (low) 15 percent and e) year 9 (low) 10 percent. Thus, it is conceivable that the low estimate can generate a larger disbursement in a later period than the high estimate. This ignores the likelihood that projects will be terminated rather than extended if disbursement rates are low and performance is weak.

We have used the assumed disbursement rates presented above to estimate disbursements for the entire portfolio of project lending for the development banks. The World Bank's malaria portfolio comprised 40 projects in 1998 and 58 projects in 2002. The African Development Bank's malaria portfolio comprised ten lending activities with a malaria component as of 1998, and 20 in 2002. Thus, even if a large project such as the World Bank Indian Malaria Control project, initiated in 1997 at a level of \$164.8 million, were to be closed prematurely, total disbursements from an entire malaria support portfolio would not be altered by more than 15 percent in any given year (see notes to Tables 1 and 2 for additional details).

With the exception of DFID, it was assumed that the bilaterals disbursed their funds for RBM in the year they were initially allocated to a particular country malaria control programme or technical assistance project implementing agency. In the case of DFID the disbursement flows were based on the same assumptions as for the development banks. If the life of the project was known to be less than five years, then the disbursement rates were adjusted upwards.

Given the lack of readily available information on malaria research funding from public and private sources, especially for vaccine development, it was difficult to learn if financing for such purposes in 2002 had significantly changed from 1998. For this report, it is assumed that 1998 funding levels continue to reflect 2002 levels (See Tables 1 and 2 below).

Historical Flows

During the period of the first significant global effort to eradicate malaria, from 1948 to the mid-1960s, international malaria spending was high.¹ Between 1972 and 1975, WHO's spending on malaria in current dollars was more than double RBM's average annual expenditures of approximately \$35 million.

If WHO's current RBM and other malaria expenditures equaled those of the 1972-1975 period, it would be spending more than double (between \$85 to 90 million) RBM's annual expenditures of about \$35 million for 2002. However, after admission of defeat in the 1970s, international expenditures dropped to a low level, with the exception of the procurement of anti-malarials by international donors out of the funds provided for general health development initiatives.

During the early 1990s there was increased interest in developing a new strategy to at least control malaria via the increased use of insecticide-treated nets (ITNs). This initiative, along with the effort of the IMCI programme to provide rapid and effective treatment to a selected set of diseases known to lead to high rates of mortality among children under five has paved the way to a renewed interest in rolling back malaria.

A report of the Malaria Consortium estimated that international malaria spending amounted to approximately \$265 million in 1998. This estimate reflects a five-year \$165 million World Bank India Malaria Project signed that same year. Excluding the India project, the reported level of 1998 commitments were about \$100 million, nearly twice the levels reported in 1994.²

According to the Malaria Consortium report, the largest share of financing in 1998 (44 percent = \$51 million) was for research, mainly for a malaria vaccine, and for other pharmaceutical products. WHO financing for malaria was about \$2.4 million, or about 2 percent of the total for that year. World Bank disbursements in 1998 were between \$22 to 24 million, with another \$1 to 2 million from the African Development Bank (AfDB). The bilateral support shown in Table 1 is comprised of funds from USAID (disbursed about \$10 million in 1998), with the remaining bilateral funds coming from a number of other donors, including Australian Agency for International Development (AusAID), DFID, JICA, Italy, the Netherlands, Canada and Belgium.

¹ See for example pages 26 and 27, WHO, *Proposed Programme and Budget Estimates for the Financial Year 1 January–31 December, 1974*, Official Record No. 204 (Geneva: WHO, 1972), which shows malaria eradication the largest single disease specific programme, comprising about 8% of total WHO proposed expenditures (over \$ 6.2 million) in each year from 1972 to 1975.

² Annex A, Table 4, p. A72, in J. Martinez, J. Hill, and S. Meek, *Global Co-ordination of Malaria Control Efforts: Issues and Options for Supporting Country Strategies*, (London: Malaria Consortium, July 1998).

Financial Flows in 2002

By 2002 estimated international spending (in terms of annual disbursements) will be \$125 million per year, nearly a two-fold increase from 1998 (see Table 2). This estimate does not include the amounts which are envisioned for 2002 from UNICEF, which has just begun its RBM programme, AFRO, which also has its own sources of some funds, or the EC which is revisiting its commitment to RBM. This level of spending is expected to grow as more countries demonstrate progress towards achieving the Abuja or Millennium goals established by the international community.

Table 2 shows funding through the RBM Secretariat within WHO and its Regional Offices amounted to around \$35 million per year, or about 28 percent of the total estimated international spending on malaria in 2002. This is a considerable increase over 1998, when similar financing sources accounted for about 4 percent of total funding and only \$2.4 million. The two Tables also show a considerable increase in funding by WHO for malaria amounting to \$8.7 million.

Most of the funds channelled through the Secretariat came from bilateral sources. The bilateral support to RBM is over 70 percent of total RBM estimated expenditures, with the remainder coming from multinational supporters (World Bank, EC). Two bilaterals (USAID and DFID) contribute nearly 80 percent of the financing tracked through RBM financial systems. The Italians and Japanese are the other major bilateral supporters in 2002 (about 15 percent of the bilateral total). Other international donors to RBM in 2002 include Australia, Belgium, Canada, Germany, Luxembourg, the Netherlands and Norway.

WHO Geneva and its Regional Offices contribute about 25 percent of the total RBM Secretariat expenditure for 2002. Some of these funds (about \$3.3 million in 2002) are allocated to country-specific programmes to control malaria.

Malaria Financing in 2002: Outside RBM

International support for malaria outside of the funds funnelled through the RBM Secretariat has reached nearly \$90 million per year (about 72 percent of the estimated total for 2002). Bilaterals (mainly the US Government (USAID) and DFID) contribute nearly 60 percent of that amount with multinationals contributing the remainder.

Clearly identified country-specific control programmes comprised over \$76 million or 60 percent of total estimated expenditures in 2002 (Table 2). Some of these funds were funnelled through the RBM (about \$6.5 million) but mostly they were financed directly by bilaterals or multilaterals (nearly \$70 million). This level of expenditure is probably double the absolute level in 1998. Finally, some of the funds shown in Table 2 as going to general support of the WHO Secretariat were also utilized on a country-specific basis, most notably for developing country strategic plans and implementation guidelines. It is assumed that more RBM funds will go to countries in the years immediately ahead when countries will seek to implement their plans.

Country governments receiving international support typically finance local resource procurement, especially personnel. Thus, for 2002, depending upon the relative prices of locally available resources compared with internationally procured items, about 50 percent of the total cost of a malaria control programme is financed locally, implying recipient countries are annually contributing resources valued between \$70 to 80 million.³ If one includes these locally mobilized

³ DW Dunlop and M Over initially raised the distinction between local as contrasted to internationally procured inputs and the implications for their financing. See Dunlop DW and Over M, 'Financing the Foreign Exchange Costs of Health Programmes in Third World Countries', pp. 99-126, in Sorkin A ed., *Economics of Human Resources in Economic Development*, JAI Press, 1988.

resources in estimates of international resource mobilisation for malaria in 2002, the total would amount to around \$200 million.

During the 1990s, most internationally financed malaria projects were used to finance procurement of internationally manufactured insecticides, drugs or other items, e.g. bednets. For example, for the 23 World Bank projects where information was available on the specific procurements within the malaria component, insecticides comprised 62 percent of the funds. Drugs, e.g. chloroquine and SP, required another 16 percent, and the remainder was used for equipment, bednets and many other items.⁴ While all international inputs are vital to the success of each country control programme, insecticide procurement has been a large component of World Bank support. This may imply Bank financing being at odds with RBM programme priorities, e.g. early case treatment and widespread use of ITNs, although additional information regarding the World Bank supported malaria control programmes may be required to fully justify this view.

Finally, over 70 percent (\$19 million out of \$26 million) of the total specific programme and technical assistance expenditures, e.g., malaria in pregnancy and bednet treatment, vaccine research and research on new anti-malarials, are supported by funds which flow outside the WHO/RBM mechanism. Much of these resources comes from USAID or DFID.

Country Focus

While it is difficult for WHO and Regional Offices to focus international funds to a few 'target' countries, the funds related to malaria control activities flowing outside the RBM mechanism are highly targeted. This is most easily shown in the financing of RBM activities in Africa (See Table 3). The Table shows both WHO funds for specific country malaria programmes along with the additional funding provided by other international donors for both preventive and early treatment programmes. Of the 44 countries listed in Table 3, 33 obtain the majority of their external funding for malaria from non-Secretariat and non-WHO sources. The top ten countries for 2002 in terms of total external funding obtained have been allocated over 70 percent of total estimated expenditures.

Even within WHO/RBM country-specific funding, the top ten African countries in terms of disbursements in the 2000-2001 biennium spent over 53 percent of the total, and six countries in Africa were not allocated or did not spend any funds on malaria.

The Relationship Between Malaria Control Planning and International Financing for RBM

Table 3 also shows the level of international support on a per capita basis for the countries in Africa, the most malarious region. In 2002, for the 44 countries listed, it shows that per capita expenditure levels amounted to between seven and eight US cents, or between \$47 and \$54 million in total. In order for those international resources to be effectively utilized, local resources must be committed in about equal measure.

As has already been shown, while this level of support has grown rapidly, the levels are still low relative to what might be required to effectively control malaria in the region in the near future. The Commission on Macroeconomics and Health estimated that to control malaria with the tools currently available, it will require 0.6 to 0.9 US dollars per capita by 2007 and 2015 (in 2002

⁴ If the World Bank India Malaria Control project is excluded from the analysis, the allocations for the remaining 22 projects are as follows: 54% for insecticides, 20% for drugs, and the remainder for many other inputs. See World Bank, Roll Back Malaria FY 99, Status Report. (Washington D.C.: World Bank, 2000).

US\$) respectively.⁵ This means that total annual financial support for malaria control programmes in Africa will need to be increased by about 4 fold by 2007 and 5.5 and 6.5 fold by 2015. Only a handful of African countries have begun to achieve a level of support for their RBM programmes to have a chance in the short-term to control malaria to the level established at Abuja, Nigeria. This list of countries includes Benin, Eritrea, Mauritania, Namibia, Senegal and Zambia, along with Comoros and Sao Tome. These are highlighted in Table 3. Other countries, including the Gambia, Guinea Bissau, Madagascar, Malawi, Mozambique, Uganda and Tanzania may be reaching about 50 percent of the 2007 target as of 2002.

The RBM Secretariat has been involved in supporting many African countries to develop country strategic plans (CSPs) for addressing their malaria problem. Twelve CSPs have been developed and summarized by the Secretariat.⁶ The proposed financial aspects of the combined CSPs are presented in Table 4. The financing priorities of the combined set of plans embodied in the Table suggest relative equity between early treatment and prevention from the spread of malaria, with over 40 percent being allocated to early treatment of malaria. Further, these plans show that the incremental costs of early treatment for malaria appear to be generally met by the combined set of CSPs, with about \$0.2 per capita allocated, above the suggested figure of \$0.1 for 2007 in the Commission on Macroeconomics and Health report to WHO.⁷ However, the preventive target of \$0.6 per capita is only one-third met, at a level of \$0.23 per year (see Table 4). Thus, more resources may be required for preventive interventions in the near future.

Finally, for the twelve countries whose proposed CSP programme expenditures are summarized in Table 4, the level of external resources garnered for their implementation beginning in 2002 shows only 15 to 18 percent of the required expenditure mobilized. Expenditures amounting to about \$0.45 per capita has been planned across the eight programmatic areas, but the level of resource commitment for 2002 is only \$0.07 to \$0.08. This finding suggests a considerable additional resource mobilization chore ahead to achieve the goals of RBM.

⁵ Table A2.2, p 161 in Sachs J, *et al*, ed. 2001. *Macroeconomics and Health: Investing in Health for Economic Development*, Commission on Macroeconomics and Health.

⁶ WHO/RBM. 2001. *Summary of 12 African Strategic Plans to Roll Back Malaria*. WHO.

⁷ Table A2.2, p 161, Sachs J, *et al*, ed. 2001. *Macroeconomics and Health: Investing in Health for Economic Development*, Commission on Macroeconomics and Health.

Annex F – Table 1: Summary of Estimated Expenditures for Malaria by International Organizations/Donors, 1998

Sources of Financial Support	Uses of Financial Support (Million US\$)									Share of Total	
	Within RBM				Sub-total	External to RBM			Sub-total		Total
	General/ Extra Budget	Specific Programs	Country Specific	General/ Extra Budget		Global TA & Specific Programs	Country Specific				
WHO HQ	0.800			0.800				0.000	0.800	1.2	
Regional Offices of WHO (1)	1.600			1.600				0.000	1.600	2.5	
1. Total WHO	2.400			2.400				0.000	2.400	3.7	
2. Bilateral Through RBM Secretariat				0.000				0.000	0.000	0.0	
3. Multilateral Through RBM Secretariat				0.000				0.000	0.000	0.0	
Total RBM	2.400	0.000	0.000	2.400				0.000	2.400	3.7	
4. Bilateral Outside RBM Secretariat (2)				0.000	NA	NA	NA	24.400	24.400	37.9	
5. Multilateral Outside RBM Secretariat (3)				0.000	NA	NA	28.436	37.256	37.256	57.9	
6. NGOs				0.000			3.300	3.300	3.300	5.1	
Total Outside	0.000	0.000	0.000	0.000	NA	NA	NA	64.956	64.956	100.9	
Total RBM and Outside Support	2.400	0.000	0.000	2.400	NA	NA	NA	64.956	67.356	104.7	
Share of Total	3.0	0.0	0.0	3.7	NA	NA	NA	100.9	104.7		

Notes:
(1) Estimated to be twice the size of HQ staff allocations in 1998.
(2) The allocations between general, specific TA or research, or country specific expenditures are not available for 1998.
(3) Multilateral support includes the World Bank and the African Development Bank, along with the EC, and other UN agencies.
The estimate provided in this table includes the large India Malaria Control Project of the World Bank (US \$164.8 million) signed in 1997.
The figure for the multilateral disbursements would decline by about US\$ 2.5 million, if the India project was excluded.

Sources: Annex Table A4, pg. A72, J. Martinez, J. Hill, and S. Meek, *Global Coordination of Malaria Control Efforts: Issues and Options for Supporting Country Strategies* (The Malaria Consortium, July 1998), and internal memorandum from the African Development Bank and the World Bank.

Annex F – Table 2: Summary of Estimated Expenditures for Malaria by International Organizations/Donors, 2002

Sources of Financial Support	Uses of Financial Support (Million US\$)									Share of Total	
	Within RBM				Sub-total	External to RBM			Sub-total		Total
	General/ Extra Budget	Specific Programs	Country Specific	General/ Extra Budget		Global TA & Specific Programs	Country Specific				
WHO HQ	2.536	0.000	2.710	5.246				0.000	5.246	4.2	
Regional Offices of WHO	2.924	0.000	0.557	3.481				0.000	3.481	2.8	
1. Total WHO	5.460	0.000	3.267	8.727				0.000	8.727	7.0	
2. Bilateral Through RBM Secretariat	14.931	7.766	2.973	25.670				0.000	25.670	20.5	
3. Multilateral Through RBM Sect.	0.750	0.000	0.209	0.959				0.000	0.959	0.8	
Total RBM	21.141	7.766	6.449	35.356				0.000	35.356	28.2	
4. Bilateral Outside RBM Secretariat				0.000	1.914	18.807	33.590	54.311	54.311	43.3	
5. Multilateral Outside RBM Sect. (2) (3)				0.000	0.000	0.000	37.548	37.548	37.548	29.9	
6. NGOs (1)				0.000			3.300	3.300	3.300	2.6	
Total Outside	0.000	0.000	0.000	0.000	1.914	18.807	74.438	95.159	95.159	75.8	
Total RBM and Outside Support	21.141	7.766	6.449	35.356	1.914	18.807	74.438	95.159	130.515	104.0	
Share of Total	16.8	6.2	5.1	28.2	1.5	15.0	59.3	75.8	104.0		

Notes:
(1) For NGO funding, it is assumed that 2002 levels of financing are at least equal to 1998 estimated levels, as investigated by the Malaria Consortium in 1998.
(2) The figure for the multilateral disbursements would decline by about US\$ 4.1 million, if the World Bank India Malaria Project was excluded.
(3) Estimates of financial flows from UNICEF and the EC are not known for 2002, but are potentially significant, i.e. greater than 5 million each.

Sources: Internal financial statements from the RBM secretariat, WHO, USAID Malaria budget documents for 2002, DFID internal memorandum, African Development Bank internal memorandum, and World Bank internal memorandum.

Annex F - Table 3: Estimated Expenditure on Malaria in the African Region by Country, programme and Donor, 2002																							
Country	Population / millions		WHO/RBM		Disbursed	AFRO Funds		World Bank Loans (est. Disbursed)		African Dev. Bank Loans (est. Disbursed)		UNICEF		USAID		DFID		Italy (through WHO/HQ RBM)		Totals		Per Cap Totals	
	2000	2002	Budget Ceiling	Obligations		High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1. Algeria	31.09	32.35	0.060	0.049	0.007															0.007	0.007	0.00	0.00
2. Angola	12.67	13.37	0.195	0.096	0.006															1.096	1.096	0.08	0.08
3. Benin	6.26	6.59	0.171	0.168	0.114			0.033												1.614	1.614	0.24	0.25
4. Botswana	1.55	1.59	0.090	0.093	0.056															0.056	0.056	0.04	0.04
5. Burkina Faso	11.24	11.76	0.320	0.447	0.113													0.437		0.550	0.550	0.05	0.05
6. Burundi	6.83	7.14	0.120	0.089	0.063															0.168	0.168	0.02	0.02
7. Cameroon	9.37	9.84	0.177	0.188	0.124			0.050												0.124	0.124	0.01	0.02
8. Cape Verde	0.39	0.40	0.040	0.038	0.038															0.038	0.038	0.09	0.09
9. CAR	2.41	2.49	0.120	0.122	0.067															0.067	0.067	0.03	0.03
10. Chad	7.80	8.23	0.191	0.207	0.070			0.063												0.133	0.133	0.01	0.02
11. Comoros	0.56	0.59	0.206	0.073	0.130			0.585												1.243	1.243	2.11	1.12
12. Congo	2.92	3.07	0.120	0.088	0.046															0.046	0.046	0.01	0.01
13. Cote D'Ivoire	15.36	15.88	0.206	0.183	0.100			0.120			1.300									0.100	0.100	0.01	0.01
14. Dem. Rep.	50.88	53.88	0.252	0.209	0.036															1.336	1.336	0.02	0.02
15. Equatorial	0.45	0.47	0.080	0.028	0.012			2.250												0.012	0.012	0.03	0.03
16. Eritrea	4.08	4.28	0.150	0.143	0.045			3.000			0.463									2.993	2.993	0.70	0.49
17. Ethiopia	63.83	66.67	0.838	1.032	0.527			1.500			0.231							0.150		5.240	5.240	0.08	0.05
18. Gabon	1.27	1.32	0.100	0.096	0.083															0.083	0.083	0.06	0.06
19. Gambia	0.64	0.67	0.178	0.146	0.114															0.114	0.114	0.17	0.17
20. Ghana	19.27	20.17	0.344	0.355	0.070			0.040												1.177	1.177	0.06	0.06
21. Guinea	7.34	7.66	0.276	0.185	0.081			0.000												0.081	0.081	0.01	0.02
22. Guinea Bissau	1.16	1.20	0.110	0.104	0.097			0.060												0.157	0.157	0.13	0.16
23. Kenya	30.26	31.42	0.299	0.293	0.191						0.546									3.934	3.934	0.13	0.09
24. Liberia			0.125	0.102	0.059															0.059	0.059		
25. Madagascar	15.27	16.11	0.270	0.389	0.187			1.080												1.717	1.717	0.11	0.14
26. Malawi	10.99	11.48	0.220	0.202	0.158															1.958	1.958	0.17	0.17
27. Mali	11.22	11.88	0.177	0.186	0.145			0.340			0.005									1.290	1.290	0.11	0.12
28. Mauritania	2.68	2.81	0.148	0.101	0.078			1.560			0									1.638	1.638	0.58	0.38
29. Mozambique	17.51	18.15	0.363	0.442	0.355			0.000			0.259									2.422	2.422	0.13	0.11
30. Namibia	1.68	1.75	0.175	0.165	0.115			0.000												0.597	0.597	0.34	0.23
31. Niger	10.74	11.42	0.172	0.169	0.095			0.500			0.078									0.095	0.095	0.01	0.02
32. Nigeria	126.0	132.3	0.458	0.459	0.099			0.500			0.039									3.294	3.294	0.03	0.02
33. Rwanda	8.41	8.77	0.243	0.155	0.064															0.664	0.664	0.08	0.08
34. Senegal	9.45	9.91	0.202	0.258	0.200			1.330			0.081									4.111	4.111	0.41	0.40
35. Sierra Leone	4.97	5.16	0.141	0.123	0.045			0.100												0.095	0.095	0.03	0.02
36. South Africa	41.95	42.88	0.060	0.058	0.035															0.172	0.172	0.00	0.00
37. Swaziland	1.01	1.05	0.100	0.098	0.063															0.063	0.063	0.06	0.06
38. Togo	4.62	4.84	0.177	0.295	0.258															0.258	0.258	0.05	0.05
39. Uganda	21.73	22.74	0.201	0.678	0.441			1.000			0.588									3.967	3.967	0.17	0.18
40. Tanzania	33.31	34.73	0.505	0.564	0.351			0.500			0.443									0.600	0.600	0.14	0.10
41. Zambia	9.95	10.33	0.257	0.306	0.208						1.128									4.000	4.000	0.52	0.46
42. Zimbabwe	11.95	12.27	0.240	0.476	0.143						0.037									0.195	0.195	0.03	0.02
43. Sudan	29.48	30.73									0.094									0.047	0.047	0.00	0.00
44. Sao Tome	0.15	0.15						0.040			0.020									0.313	0.313	2.05	1.03
Total	660.7	690.5	8.877	9.957	5.419	0.000	12.47	9.431	3.552	2.277	0.000	24.700	6.997	4.197	0.887	54.025	46.911	0.08	0.07	0.08	0.07	0.08	0.07

Annex F – Table 4: Africa Total Planned Expenditure for RBM Activities in 12 Countries, 2001/2 for 1st Year of Five Year Plans, in Millions of Dollars						
Programme	Estimated programme totals Year 1	No. of programmes Mentioned in Plans	% of Total	Per Capita US\$	% of Planned	
Systems Strengthening/Capacity Building, HRD, Research, HMIS, Reform, Institutional Support	15.706	n=15	10.5	0.05		
Case Management (inc. Malaria & Nutrition & Drug/commodity Procurement)	44.957	n=15	30.0	0.14		
Epidemic Control	10.461	n=9	7.0	0.03		
ITNs and Personal Protection (including IPTs)	52.679	n=10	35.2	0.16		
Vector Control (including Community based Malaria Control and Biological Control)	14.823	n=9	9.9	0.04		
Management and Coordination	6.805	n=8	4.5	0.02		
Partnerships (and Social Movements)	1.986	n=7	1.3	0.01		
Monitoring and Evaluation (and Surveillance)	2.320	n=8	1.5	0.01		
Total	149.737		100.0	0.45		
Total Per Capita Expenditure	0.45					
Total Level of Resource Commitment per Table 2						
High Estimate Millions US\$	28.358			0.08	18.0	
Low Estimate Millions US\$	23.636			0.07	15.0	

Source: *WHO Summary Document on Malaria Strategic Planning in Africa, 2001*, and Table 2

Annex G

Malaria Research

Research

Research and the use of evidence-based decisions have been important elements of RBM. The global advocacy of RBM has partly contributed to increased investment in malaria research. New malaria research programmes have been initiated, for example Medicines for Malaria Venture (MMV), and existing ones have been strengthened. TDR allocation for malaria research has increased substantially in the last few years. However, even with this progress there is still a need for more support for malaria research to improve the use and delivery of existing tools, and to develop new tools and strategies. During Phase 2, RBM must increasingly focus on operational and implementation research.

Research Priorities

The current approach to defining global malaria research priorities depends on the knowledge and understanding of malaria experts, research institutes and funding agencies. It is not clear how far RBM Secretariat has been successful in influencing the global research agenda, and whether current research is contributing towards the achievement of RBM targets in the short or long term. The Secretariat should continue to advocate for more research. However, particular attention should be given to research topics that may contribute to achieving RBM targets. Emphasis should be on (a) improving the uptake of existing strategies and tools to attain high coverage and the desired impact; (b) creating an enabling environment to support the implementation of malaria control within the context of health sector reforms at the household, community, district, national and international levels; and (c) to develop and evaluate new strategies or tools for malaria control.

Research and Control

The importance of reducing the gap between research and control has been well-emphasized. The Secretariat has created an enabling environment for researchers to collaborate with control managers. It is only by working together that researchers appreciate the challenges facing malaria control managers. In addition, it enables researchers to identify research questions that are of particular relevance to control. It also allows researchers to promote the utilization of research findings to the malaria control community. An example of good practice is East Africa where researchers and malaria control managers work together on issues relating to anti-malarial drug resistance and treatment guidelines through the East African Network for Monitoring Anti-Malarial Treatment. In various other countries, malaria stakeholders work to ensure that operational research priorities are included within the Country Strategic Plans. The main advantage of researchers and control staff working together is facilitation of communication and exchange of information between the two parties. However, at the regional level, the link between AFRO and other African research institutions is weak.

Constant communication between researchers and control experts at national, regional and international levels is crucial for setting a relevant research agenda and for the success of malaria control. One example of lack of adequate communication has arisen with regards to the issue of safety of SP in infants. SP is a drug that has been in use for many years, and several countries have adopted it as the first-line malaria treatment. However, some researchers have recently noted that there is no adequate data on safety of SP in infants. Ideally, this question would have been already resolved prior to encouraging widespread use of SP and, more importantly, prior to recommending SP as a first-line drug in national treatment guidelines.

Alliance of Health Policy and Systems Research

The initiation of the new joint programme between the RBM Secretariat and the Alliance for Health Policy and Systems Research (AHPSR) represents a major step forward towards the goal of balancing disease interventions and health systems research issues. The AHPSR was established in 1999 by the Global Forum for Health Research in collaboration with World Health Organization. Its mandate is to contribute to health development, and to improving the efficiency and equity of health systems through research on policy. Another goal is to contribute to strengthening research capacity in areas of health policy and systems research.

The Alliance currently sponsors three projects involving malaria: malaria and social security in Colombia; human resource management for malaria control at district level in Uganda; and the impact of the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS) on the availability of anti-malarial drugs in Mozambique. In the future, the Alliance intends to emphasize scaling up malaria control and prevention within the context of health system strengthening, decentralization, and sector wide approaches.

The research programme under the AHPSR is unique because it requires the involvement of policy makers from beginning to end, from the development of research projects to proper strategies for dissemination and utilization of research results. In Phase 2 of RBM, there is a need to further strengthen the link between RBM Secretariat and the Alliance. The goal must be to mobilize more resources for malaria research and to contribute to strengthening research capacity, which is still very weak in most malaria-endemic countries. It will be beneficial for AFRO to be actively involved in these areas of research in order to supplement its biomedical expertise, given the importance of health systems research to decision-making.

TDR

TDR is the Special Programme for Research and Training in Tropical Diseases, supported by UNDP, the World Bank and WHO. It is considered a research arm of RBM. The goal of collaboration between TDR and RBM is to review progress, identify gaps and define priorities in intervention research, product development and capacity strengthening in research and development (R&D) for malaria. Research priorities undertaken by TDR include strategies to improve the home management of uncomplicated malaria, the safety and efficacy of anti-malarial combination therapies, the development of rectal artesunate, and the rapid diagnosis and development of new drugs and other tools (e.g. Lapdap-artesunate triple combination, evaluation of insecticide-treated nets, intermittent treatment in pregnancy and malaria intermittent treatment in infancy).

The inclusion of implementation research within the research portfolio of TDR creates an opportunity for moving interventions from proof of principle to evaluating real life situations. This is an important interface between research and control. It is only after taking this step that a technical strategy can be rationally defined. Current examples of malaria interventions that must

be evaluated for their effectiveness include intermittent treatment for infants and anti-malarial combination therapies. However, implementation research is expensive. Therefore, RBM must work in collaboration with TDR to mobilize resources. In Phase 2 of RBM, TDR will have an opportunity to initiate more operational research, particularly related to social, economic and behaviour studies on utilization of interventions.

TDR and RBM communications need further strengthening through the appointment of a focal person for research within the RBM Secretariat. Given the need to broaden the research capabilities of malaria-endemic countries on issues relating to health sector reform, it will be important for the TDR Health Sector Reform Group to work closely with the AHPSR in this area.

MIM

The Multilateral Initiative for Malaria (MIM) in Africa is an international partnership that focuses on building malaria research capacity in Africa and promoting research with immediate value to control programmes. Currently, MIM provides financial support to more than 23 research projects in Africa, ranging from studies on home management of malaria; natural products and drug development; entomology and vector studies; pathogenesis and immunology; epidemiology; and anti-malarial drug resistance. RBM provides financial support to some of these research projects (e.g. Malaria Transmission Intensity and Mortality Burden Across Africa Project – this project, in addition to answering specific research questions, also collects other data for monitoring and evaluation of RBM across the region).

In the future, MIM should strengthen its ties to the malaria control community, to jointly identify research priorities for malaria control and to share progress and results on a regular basis.

European Clinical Trials Platform

European Clinical Trials Platform (ECTP) is a new initiative that aims to accelerate the development of new interventions against malaria, HIV/AIDS and TB by increasing the effectiveness of European investment in clinical trials in collaboration with developing countries; by mobilizing resources for developing these interventions; and by accelerating candidates through the developmental pipeline. Core functions of the Platform include supporting the networking and pooling of EU national trials activities (including the infrastructures needed in EU to support these trials, notably Phase I trials); supporting the development of trials infrastructures in developing countries (notably Phase II-IV trials), with a focus on capacity building and training; sponsoring clinical trials by putting together financial packages that attract external sources of co-financing for this purpose, particularly in partnership with biopharmaceutical industry; and developing a European, rather than national, presence in international initiatives for R&D for the three poverty-related diseases. RBM should establish contacts with the ECTP and play an active role in promoting its research agenda. This would supplement RBM's research links to other institutions in addition to TDR.

Medicines for Malaria Venture

The Medicines for Malaria Venture (MMV) is a joint public and private partnership dedicated to the discovery of new anti-malarial drugs. MMV's objectives are to discover, develop and commercialize one new anti-malarial product every five years. The goal is to make the new products affordable for the populations of malaria-endemic countries. MMV is needed because the pharmaceutical industry has reduced its engagement in anti-malarial drug discovery and development. Commercial returns on these new products are not considered adequate for the large investment required. MMV is supporting several projects at different stages – from

exploratory, discovery, pre-clinical and development stages. RBM Secretariat should continue to provide support to MMV to ensure the availability of new drugs on a regular basis. Given that resistance to insecticides is likely to increase, there is a need to explore similar ventures to support R&D for new insecticides.

The Search for a Malaria Vaccine

Many institutions are heavily involved in R&D for the development of a malaria vaccine, including the Malaria Vaccine Initiative, the European Vaccine Initiative, the National Institutes for Health, Wellcome Trust, Australian Medical Research Council, GlaxoSmithKline, US Department of Defense, WHO/TDR, African Malaria Intervention Network (former African Malaria Vaccine Testing Network) and USAID. Several antigens have been identified, two of which have recently undergone field trials. A trial of the RTSS vaccine in Gambian adult males has resulted in significant reduction in the rate at which they were infected after vaccination, although the protection was not long lived. A combination of three blood stage antigens has been tested among children of five to nine years in the Wosera District of Papua New Guinea. This study detected significant decreases in the parasite density and the frequency of parasite episodes greater than 1000 per micro litre, and a major switch in the MSP2 genotype of parasites.

There are nine vaccine candidates in or close to clinical trials. These have been developed and tested by various groups, including Medical Research Council, GlaxoSmithKline, US Ministry of Defence, USAID, National Institutes for Health, University of Maryland, New York University, University of Oxford, London School of Hygiene & Tropical Medicine and Institut Pasteur. Considering the growing interest in the vaccine and the need to speed up development and testing, there is a need to consider establishing mechanisms to coordinate malaria vaccine initiatives.

Annex H

Assessment of the Roll Back Malaria Monitoring and Evaluation System

Kate Macintyre, Erin Eckert, Amara Robinson

Executive Summary

Introduction

The Roll Back Malaria Partnership is currently undergoing an evaluation of its progress after three years of implementation. One objective of the RBM Partnership is to develop an effective monitoring and evaluation (M&E) system to assess RBM progress towards its objectives and determine whether its goals have been met at the country, regional and international levels. USAID, as primary funder of this monitoring and evaluation system, particularly for the Africa Region, has requested a specific assessment of the M&E system at the regional and global level. The results of this assessment will feed into the larger external evaluation and will provide recommendations to improve the capacity of RBM to monitor its effectiveness.

The methods used here have consisted of document reviews, database reviews, summary analysis of indicators and methodology, and key informant interviews in Harare, Geneva, Atlanta and by phone with nearly all other partners. The consultancy took place between November 2001 and January 2002.

- WHO/AFRO: three staff from RBM and one person from integrated disease surveillance
- WHO/HQ: five staff from RBM, two from integrated disease surveillance, two from TB
- Interviews and general discussions were also held with most of the individuals involved in or with a close interest in M&E of RBM, with members of the Partnership, with several malaria experts from RBM itself, and externally.

Framework

The framework for M&E for RBM is comprehensive in its coverage of all areas relevant to Roll Back Malaria. It emphasizes local control over data collection efforts by developing standardized approaches and encouraging countries to pick indicators appropriate to their epidemiologic profile. The framework uses minimal new data collection, instead relying on existing mechanisms and tapping into larger survey efforts, such as the Demographic and Health Surveys (DHS), where appropriate. This reliance on ongoing data collection efforts while improving

existing systems is laudable but has potential to increase problems in acquiring the desired data in a timely fashion.

The conceptual framework spells out the elements of a malaria programme but does not clarify the processes, outputs and outcomes within each element. In addition, there is no guidance on the appropriate selection of indicators at different levels, except to urge countries to choose one process and one outcome indicator for each element. The 'evaluation' aspect of M&E is not evident in the framework documents either, which could limit efforts to empirically prove the merits and cost-effectiveness of various programmes.

Databases and Platforms

Monitoring and evaluation depends on high quality valid and reliable data on the target programme. Several databases are in use, or are being created. However, many challenges remain if these databases are to play a solid role in M&E. In many cases the databases are not complete and some of the data are of questionable quality. It is particularly concerning that the baseline surveys are still not complete.

At the country level, various sources of data exist including national health information systems, national surveys such as the DHS or the UNICEF Multiple Indicator Cluster Survey (MICS). These sources provide information for programme monitoring and impact assessment on a regular basis. WHO/AFRO has also developed a methodology for collecting country baseline data which is currently being implemented in Africa. In addition, RBM has contracted with the INDEPTH network of demographic surveillance sites to collect specific indicators on malaria morbidity and mortality to inform the programme on disease trends.

Indicators and Sources of Data

There is a lack of consistency in indicators and definitions reported across countries and regions within RBM. The biggest issue is a lack of clarity on the definition of the indicators and target population covered. This lack of consistent guidelines and practices is a minor problem within a given country but can create more serious problems when it is aggregated at the regional or international level and compared with data from other countries that use different definitions or data sources.

The guidelines require countries to report on the five 'global' indicators and suggest selecting indicators to cover outcome and process levels as well. However, many countries have difficulty in recognizing the process/outcome/impact hierarchy. RBM (either regional or international) could greatly assist in this effort by providing technical assistance to individual countries to develop their M&E plans.

The RBM M&E framework suggests many different sources of data for most of the key indicators, including four of the five global indicators, which leads to confusion as to the most appropriate mechanism to obtain the needed data. A large number of the proposed indicators are population-based, yet the bulk of the data used are derived from routine health information systems or facility-based information and do not use the most accurate denominator estimates. The RBM guidelines currently provide no guidance on the appropriate *selection* of data sources. Indeed, in AFRO Region community surveys are being implemented without the rigid sampling methodologies necessary to be representative. This can create confusion and controversy when an indicator derived from one source is not the same as one calculated from another. Finally, there is an inconsistency in definitions of the suggested indicators, particularly the 'global' or 'core' indicators. These inconsistencies lead to confusion and ultimately jeopardize attempts to aggregate data at the regional or international level.

Organizational Capacity

Many of the shortcomings of the M&E system of RBM are due to organizational or structural issues within the RBM offices. The M&E team at headquarters is tasked with: a) coordinating an internal M&E working group; b) developing and implementing a work plan to track progress of RBM at all levels; c) developing a geographical information system for RBM; d) developing and testing tools for malaria M&E; and e) coordinating reporting on RBM and related activities. In addition to the M&E team at WHO/HQ, individuals within the programmatic components of RBM have M&E responsibilities. Several individuals working in other units such as Stop TB are also collaborating on aspects of RBM M&E; however, the organizational structure of RBM does not clearly define the roles and responsibilities of these individuals vis-à-vis the M&E team. Likewise, budget allocations for M&E activities are not clearly defined among the groups. This confusion leads to redundancies in some activities and gaps in others.

At WHO/AFRO, the M&E team is understaffed, consisting of one epidemiologist and one data manager. Both individuals are frequently on other activities within RBM and the larger WHO office. Other Regional Offices do not have dedicated M&E staff. This is a serious shortcoming given that all the data for international monitoring must come through the Regional Offices first.

There is no clear delineation of responsibilities between the regional bureaus and WHO/HQ for monitoring and evaluation activities, nor is there any formalized chain for reporting or deadlines. RBM is caught between the stated goal of helping countries develop their monitoring systems and the demand to produce accurate, timely tracking for the overall initiative. However, given the constraints mentioned above, this review suggests that technical assistance for the development of monitoring systems should be viewed as a separate, but equally important, activity from the monitoring of international efforts, at least in the early years of the initiative.

Recommendations

1. Recommendations for establishing systematic evaluation of RBM

- 1.1 Establish a strong M&E Team at the RBM Secretariat and in the Regional Offices. We see this as needing at least three separate initiatives:
 - Increase the number of qualified M&E staff both at HQ and in the Regional Offices, especially AFRO.
 - Streamline the management structure so that there is more authority to drive the evaluation decisions.
 - Establish a reference group to provide periodic consultation on specific technical issues related to monitoring and evaluation.
- 1.2 Establish and maintain a plan and timeline for RBM M&E reports at the regional and global levels. Reports that are essential in the near future include:
 - A baseline report for measures (dating from approximately 1998-1999) of impact, outcome and process indicators from settings where these data exist.
 - Progress reports describing specific issues such as evaluation of priority interventions, or monitoring the effect of a major policy change (e.g. change in first-line drug policy).
 - A format for annual reporting on progress with specific indicators and a timeframe for reporting must be established.
 - A global report on malaria, produced every few years, like the TB Global Report, would be very helpful at the international level.

- 1.3 Establish a transparent system for assessing data quality and standardization across countries, especially for the core indicators. The current M&E framework allows for local adaptation of many indicators thus potentially rendering some indicators incomparable. Certain indicators, when established as 'global' or at least as 'regionally critical,' must be exempt from country modification.
- 1.4 Establish methods for documenting sources of data within the specific databases used for M&E purposes, and the extent to which they are representative of a country situation. Currently, data sources for country indicators are not documented when the data are aggregated to the national or regional level, thus confusing interpretation.
- 1.5 Establish clear guidelines for data collection protocols and sampling strategies used to collect malaria-focused data in countries. For those indicators which can be obtained through standard survey methodologies, these should be used. For other indicators, RBM needs to provide clear and consistent recommendations on how to collect the necessary data, and technical assistance in data collection when necessary.
- 1.6 Establish a complete malaria database at the global level. Currently, no such database exists at the global level (although the AFRO Regional Office is compiling one for that region). RBM must be proactive in collecting data and holding countries to reporting requirements and deadlines.
- 1.7 Develop clear terms of reference for the HQ M&E unit as a whole. Management needs to clarify how the *cross-cutting* programmes like M&E should interact with the *vertical* teams. Current collaboration is based more on personal relations than on a defined structure.

Annex I

Roll Back Malaria in Complex Emergencies – RBM-CE

Dr. Ronald Waldman

The complex emergency component of the Roll Back Malaria initiative was evaluated separately, but essential findings and recommendations are presented here. These are based on an extensive review of all available documents, interviews with key people in the Secretariat, the donor community, WHO/AFRO, non-governmental organizations (NGOs), and the Technical Support Network. In addition, a field trip was made to Kinshasa and to Goma, in the Democratic Republic of Congo, where the evaluator worked closely with an RBM-CE employee and was able to observe her work and to conduct a series of interviews with donor, NGO and local partners.

Essential to the recommendations presented here is the finding that RBM-CE differs from the main body of RBM in three important ways:

- 1) its array of donors,
- 2) its key implementing partners, and
- 3) its potential array of technical interventions.

Some of the donor partners of RBM, such as the World Bank, are not traditionally involved in complex emergencies. In addition, although DFID and USAID are major donors to relief efforts in emergencies, the divisions of those organizations which deal with emergencies are not always in optimal contact with the more development-oriented divisions and have separate operating budgets. In many ways, USAID's Office of Foreign Disaster Assistance and DFID's Conflict and Humanitarian Affairs Department can be considered as different organizational donors from their parent agencies. In addition, other organizations that are principal actors in complex emergencies, such as the Office of the United Nations High Commissioner for Refugees, the World Food Programme, and the Bureau of Population, Refugees, and Migration (BPRM) of the United States Department of State, as well as a variety of others that are major stakeholders in complex emergencies, are not involved in RBM.

While RBM implements its ground-level activities primarily through Ministries of Health, and considerable effort is spent orienting and energizing these government bodies, RBM-CE more often than not finds itself using NGOs as its field-level partners. The reasons for this are multiple, and they vary considerably from one emergency to the next, but the fact is that governments are frequently part of the cause of complex emergencies and cannot be relied upon to be actively involved in the provision of health care to affected populations.

This aspect of RBM-CE has been a serious problem. WHO, which houses the RBM Secretariat, is an organization composed of, and directed by, its member states; NGOs working in emergencies are, in general, less accountable to governments (with the exception of their donors, who have been, for the most part, relatively undemanding). Partly for this reason, although there have been others, WHO has often been considered to be ineffective in its response to complex

emergencies. On the other hand, the NGOs, several of which are partners in the Technical Support Network of RBM-CE are often the first and the most important intervenors in emergency settings. It was the view of both WHO and NGO contributors that in addition to differences in style, there are real ‘cultural’ differences between the NGO community and the UN bodies. RBM-CE recognized this from the start – initially it was situated in the WHO’s Division of Emergency and Humanitarian Assistance (WHO/EHA) and operated distinctly from the main body of RBM.⁸ When RBM-CE was moved from WHO/EHA to the Secretariat, a move that was felt, at the time, to be of potential benefit, a number of actions caused problems.

These included the rapid development of funding proposals by RBM-CE and their dissemination to some of the emergency-oriented donors mentioned above; according to some, this occurred without adequate consultation and review by WHO staff. Also, staff were hired for deployment to complex emergencies by RBM-CE without adequate consultation and consent from the Regional Offices. Finally, where malaria control activities and/or policies suggested by NGOs working in the field were in conflict with those of Ministries of Health, RBM-CE tended to side with the NGOs while the more traditional (and more developmentally oriented) components of RBM argued the MOH side. Contributing to all of this is the fact that the current RBM-CE manager comes from an NGO background and has had little experience working within WHO, while malaria staff at WHO have limited experience with the NGO community and its approaches. The two modes of operation have not been adequately wed.

A third area of discordance between RBM and RBM-CE is on the technical level. It is generally accepted that the principal objective of emergency interventions is to reduce the mortality rate of the affected populations to baseline levels as rapidly as possible. Longer-term solutions to disease control problems, while recognized as being extremely important, sometimes have to wait until the situation stabilizes. In emergencies where malaria makes an important contribution to excess levels of preventable mortality, different measures may have to be implemented from those which are recommended in more stable, and more developmental, situations.

In Goma, for example, programmes to disseminate and monitor the use of impregnated bednets were being developed. These programmes require time for their implementation – community participation is essential to their success and in order to elicit community involvement intense health education activities are required. Yet, in the interim, no new prevention activities were being sponsored by the NGOs or by the authorities. However, in order to ‘buy time’, the indoor residual spraying of dwelling units might be an effective way of reducing malaria transmission until other measures could be implemented.

For treatment as well, different policies could be considered for different situations. If urgent reduction of malaria-specific mortality in a relatively small area is the goal, as is most frequently the case in complex emergencies, the most effective available treatment regimen might be recommended, at least for a limited period. On the other hand, the development of a rational national strategy that includes the abandonment of one treatment regimen and the adoption of another, including the designation of first- and second-line drugs for treatment, their purchase and distribution, and careful monitoring and evaluation of their effects, has proven to take considerable time – years, in most instances. In the interval, adherence to national-level policies that recommend the use of ineffective drugs might preclude the ability of NGOs and others working in emergencies to achieve their short-term goals.

⁸ WHO/EHA is undergoing a thorough evaluation at the same time as the RBM evaluation is being conducted. Many of the contributors to this report felt that serious changes might be recommended in the way that WHO has approached complex emergencies, including the possible placement of this activity at the Cabinet level and in an advisory rather than a technical role. But definite conclusions regarding the organizational placement of RBM-CE must await those findings. One possible solution is, nevertheless, offered here.

In addition to these real and potential differences in approach, RBM-CE has developed a research agenda that is separate from that of RBM. Field trials of factory-treated bednets that do not require re-impregnation are planned – in Goma, both the NGO responsible for central drug supply (ASRAMES) and at least one NGO operating in the region (IRC) have purchased large quantities of these nets. (Interestingly, the National Malaria Control Programme Manager discussed that programme’s intention to develop a strategy for distribution of nets that require re-impregnation at the community level). Another example of research specific to RBM-CE is the development of insecticide-impregnated plastic sheeting. Complex emergencies are frequently accompanied by the displacement of large populations. Shelter is an important problem that is frequently addressed by the distribution of large quantities of plastic sheeting for makeshift dwellings that serve to protect refugees and the internally displaced. RBM-CE has been exploring the commercial possibility of developing such material and is in the process of field-testing it.

The point of the discussion above is to establish a case for the structural separation of RBM-CE from the RBM Secretariat. This idea is not new, and mention has already been made of the original location of RBM-CE in WHO/EHA. What is new is the development of a Control of Communicable Diseases in Complex Emergencies Unit within the Communicable Diseases Cluster of WHO. This unit seeks to identify the major causes of communicable disease morbidity and mortality in emergency settings, to garner the technical resources of WHO and its operational partners in emergencies (including NGOs) in order to address these problems, to develop norms (in the form of standards and guidelines), and to suggest and sponsor research.

For many reasons, including those discussed above, RBM-CE appears to fit better with the new Control of Communicable Diseases in Complex Emergencies Unit than it does with the Secretariat of RBM. This report recommends that RBM-CE be separated from RBM and that it be located with the Control of Communicable Diseases in Complex Emergencies Unit of the Communicable Diseases Cluster of WHO.

Annex J

Technical Dimensions for Roll Back Malaria

The Roll Back Malaria (RBM) Strategy builds on the Global Malaria Control Strategy endorsed in Amsterdam in 1992. The RBM Strategy has six technical elements, which include early detection and rapid effective treatment, multiple preventions (e.g. insecticide-treated nets, selective and sustainable vector control, prevention of malaria during pregnancy), focused research, coordinated action for strengthening existing health services, policies and community-level effort, and dynamic global movement supported by a coalition of partners working toward a common approach. This section evaluates RBM tools and strategies for addressing the global burden of malaria.

Early Detection and Rapid Treatment

Early detection and treatment is the main approach for malaria control in most endemic countries. In most areas treatment is being done outside formal public health facilities. A recent finding of a study on the training of mothers in early recognition and proper malaria treatment showed a 40 percent reduction of under-five mortality in Tigray, Ethiopia (Kidane and Morrow *et al*, 2000). In several studies on compliance to treatment, the training of shopkeepers in selling full courses of anti-malarial drugs in a blister package has been shown to improve compliance and reduce waiting times for the patients (Marsh *et al*, 1999, Yeboah-Antwi *et al*, 2001). Also, RBM has supported important studies to improve the approach of home management and advocate its application. As a result, several countries intend to promote the approach of home management, as shown in country strategic plans.

Definitive malaria diagnosis requires detection of malaria parasites or parasite antigens by microscopy. The RBM Secretariat has facilitated the development of consensus through informal consultation meetings on the use of new rapid malaria diagnostics and anti-malarial drugs, including combination therapies. Rapid diagnostic tests have an important role to play in areas of low to moderate transmission, where most of the infections are symptomatic. In Cambodia, a rapid test together with a combination of mefloquine-artesunate in blister package is widely promoted in both public and private health facilities.

However, in high-transmission areas diagnosis typically depends on clinical algorithms. The role of microscopy is more limited, in part due to its widespread unavailability, but also in part due to the fact that high prevalence of the malaria parasite means that it is not associated with illness. Nevertheless, the role of definitive diagnosis using microscopy or rapid detection tests will become increasingly important in these high transmission areas. These are areas in which resistance to the most commonly used anti-malarial drugs is increasing, and the more expensive combination therapies are likely to become the first-line drugs of choice.

Anti-malarial Drugs

RBM Secretariat organized informal consultative meetings to review and update recommendations on the use of anti-malarial drugs for prevention and treatment of uncomplicated malaria.

Chloroquine

Drug resistance has become a major problem in malaria case management in several countries. Chloroquine, a drug that has been cheap and widely available for many years, has developed resistance to *P. falciparum*. Resistance to chloroquine is widespread in East, Central and Southern Africa, compelling several countries to change first-line treatment to either sulfadoxine-pyrimethamine (SP) alone, a combination of SP and chloroquine, or a combination of SP and amodiaquine. In West Africa, chloroquine resistance varies but tends to be lower than it is in East Africa, and no changes have yet been made in first-line treatment. There is a high level of chloroquine resistance in South Asia, South-East Asia, the Oceanic countries (Papua New Guinea and Vanuatu), the Amazon Basin, and in some coastal areas of South America. However, the drug is still first-line treatment in Afghanistan, Malaysia and Yemen. It is also used in combination with primaquine in Bangladesh, India, Myanmar and North Vietnam. In the Oceanic countries, it is used in combination with SP in adults, while in South America it is used in combination with primaquine in Venezuela.

Chloroquine is still effective against *P. vivax* and is commonly used in Ethiopia and South-East Asia to treat malaria associated with *P. vivax* infections.

Amodiaquine

The drug is efficacious in most parts of Central, East and West Africa, and the northern Pacific coast of South America. However, there is cross-resistance with chloroquine, and moderate to high-level resistance has been reported in Papua New Guinea, some parts of East Africa and in the Amazon basin. Amodiaquine is also being used in combination with SP in Papua New Guinea, and is second-line treatment in Tanzania and Kenya.

Sulfadoxine-Pyrimethamine

Since the emergence and spread of *P. falciparum* resistance to chloroquine, SP has been the drug of choice for malaria treatment in Botswana, Ethiopia, Kenya, Tanzania, Malawi and South Africa. The drug is efficacious in most parts of West Africa. In Uganda and Ethiopia it is recommended as a first-line treatment in combination with chloroquine. However, SP resistance is increasing in certain areas of East Africa. There is low-level resistance in the Indian sub-continent, Central and Southern Africa, and in the coast of South America. High-level resistance is found in South-East Asia and in the Amazon Basin.

Quinine

The drug is commonly used for treatment of complicated malaria. It is highly efficacious in most endemic areas, with the exception of a few areas in South-East Asia and South America. Quinine is used in combination with tetracycline as a first- and second-line drug in Brazil, Cambodia and Peru. In Guyana it is used in combination with clindamycin as first-line drug, while in Venezuela it is being used in combination with doxycycline as a second-line drug. In Bangladesh, quinine is combined with SP, and in Thailand it is being used in combination with tetracycline and primaquine as a second-line drug. However, compliance to a combination of quinine with tetracycline remains a problem.

Mefloquine

The drug is mainly used in South-East Asia and part of South America. It is not widely used in Sub-Saharan Africa. Resistance has spread in Brazil in South America, and in the border areas between Cambodia, Myanmar and Thailand in South-East Asia. Mefloquine is used in combination with primaquine in most parts of Thailand. It is also used in combination with artemisinin derivatives as first-line treatment in multi-drug resistant areas in Thailand, Cambodia and part of Vietnam.

Artemisinin derivatives

Artemisinin derivatives include artesunate, artemether, arteether and dihydroartemesinin. The derivatives are effective in clearing parasites rapidly but the recrudescence is high when used as monotherapy. There are several cases reported on *in vitro* resistance but not yet confirmed by *in vivo* testing. Artemisinin derivatives as monotherapy have been used in Bhutan, parts of Vietnam, and in China, particularly in the Yunnan and Hainan provinces. Other monotherapies include halofantrine, atovaquone-proguanil and artemisinin. Other potential monotherapy compounds under trial include chlorproguanil-dapsone.

Artesunate suppositories

Artesunate suppositories have been proven to be effective in preventing mortality. Studies are underway to evaluate community effectiveness of suppositories when applied at home to reduce malaria mortality.

Combination Therapies

A consultative meeting was convened by RBM Secretariat to review the evidence for combination therapy, its criteria for selection, and its use in different epidemiological settings, particularly in Africa. Combination therapy of anti-malarial drugs is the simultaneous use of two or more blood schizonticidal drugs with independent modes of action and different biochemical targets in the parasite.

The aim of combination therapy is to improve efficacy and to slow the development of resistance to an individual component. This strategy has been successfully applied to the treatment of tuberculosis, AIDS, leprosy and cancer. In Thailand, a combination of artemisinin and mefloquine has maintained an efficacy of greater than 96 percent since its introduction in 1994, compared to less than 50 percent efficacy of mefloquine alone. There was incidence reduction of clinical malaria and reversal of mefloquine *in vitro* resistance (Nosten *et al*, 2000, Price *et al*, 2001). RBM Secretariat, in collaboration with TDR, has supported studies to establish the safety and efficacy of combination therapies in Africa. The effectiveness of combination therapy in delaying the development of resistance has not yet been established in Africa. Two large-scale projects are underway in South Africa and Tanzania.

The artemisinin-based combination therapy includes fixed and non-fixed combinations. The only fixed dose of artemisinin-based combination is artemisinin-lumifantrine. Non-fixed combination includes artemisinin derivatives and either mefloquine, amodiaquine, chloroquine or SP. Trials have been conducted to detect the safety and efficacy of these combinations, with the exception of artemisinin mefloquine. The safety and efficacy of this combination has been well-established and is widely used in South-East Asia. Other potential combinations are chlorproguanil-dapsone-artesunate, dihydroartemesinin-piperaquine-trimethoprim, dihydro-artemesinin-piperaquine trimethoprim-primaquine, pyronaridine-artesunate, and paphthoquine-dihydroartemesinin.

Multiple Prevention Methods

Insecticide-treated Materials

Studies have shown that ITNs and curtains provide significant protection against malaria in almost all epidemiological situations. In Tanzania, studies have shown that treated mosquito nets reduce child mortality by 30 percent and parasitaemia and anaemia by 60 percent and 50 percent respectively. Despite an increase in net coverage, re-treatment has been a major challenge. RBM Secretariat has commissioned field studies of long-lasting mosquito nets. These nets may offer a useful response to the problem of low re-impregnation. Preliminary results are encouraging and

the Secretariat is exploring possibilities of transferring the long-lasting net technology to manufacturers in malaria-endemic countries.

Vector control

Vector control methods have been shown to be effective in reducing malaria transmission and thus preventing epidemics. Insecticide house spraying is the main approach for vector control in low-transmission areas (e.g. Southern Africa). The main insecticides applied for house spraying are organochlorine, organophosphates, carbamates and pyrethroids. In-house spraying has been saved from a global ban. Other methods for vector control through environmental management or using biological control are applied in a few selected settings, depending on epidemiological conditions. RBM Secretariat has published and disseminated guidelines for selective vector control.

Intermittent preventive treatment for malaria in pregnancy

Intermittent administration of SP, once during the second and third trimesters, has been proven to reduce severe anaemia in pregnant women and improve the birth weight of infants.

Intermittent treatment in infancy

Recently, a new approach for malaria control has been evaluated in Tanzania and is showing convincing results. Administration of SP during immunization has reduced 60 percent of clinical malaria incidence and 50 percent of severe anaemia. The new approach will require validation in other endemic settings. In areas where efficacy results have been obtained, the effectiveness of intermittent treatment in infancy must be tested before it is adopted as an RBM technical strategy for malaria control.

Drug quality

Low quality and counterfeit drugs present major problems to malaria control. In 1999, RBM convened a meeting in Geneva to discuss this issue with drug quality control officers from several countries in Africa. Following the meeting, a study to assess the quality of anti-malarial drugs was initiated. So far no major progress has been made to ensure that good quality drugs are available to all malaria patients. Guidelines for purchasing anti-malarial drugs need reinforcement and quality control laboratories in endemic countries need further strengthening. There is a need to establish a link between WHO-accredited laboratories and national quality control laboratories to standardize methodology. Standard approaches to test quality must be re-evaluated, and mechanisms to reinforce regulations, with the support of WHO member countries, need serious attention. Tanzania is experiencing a problem with low quality SP even as it changes treatment policy, reflecting the fact that countries need technical support during the process of changing and adapting to new treatment guidelines.

Change of treatment guidelines

The main challenge in the most affected countries lies in changing treatment guidelines. AFRO developed a framework for changing malaria treatment guidelines about four years ago, yet it has neither been published nor widely circulated to date. In addition, several countries (Tanzania, Kenya, Uganda, Burundi) changed treatment guidelines with technical assistance from both regional and headquarters offices, but there is little evidence to indicate whether the framework has been applied effectively.

Even after reaching a decision to change treatment guidelines, countries still confront difficulties operationalizing the new treatment guidelines. They face different influences from other stakeholders, particularly the media, private sector, politicians, pharmacists and clinicians.

Strong technical support to countries undergoing this process is greatly needed. The current emphasis of RBM technical missions is restricted to identifying alternative drugs, and not to assisting countries with the overall process of changing and adapting new treatment guidelines. Efficacy is not the only important consideration. Countries must consider other important factors, such as cost, cost-effectiveness, availability, side effects and treatment-seeking behavior.

Diversity or common strategy

Countries have developed strategic plans for rolling back malaria based on local epidemiological situations. The RBM technical elements are included in the Country Strategic Plans. Most of the CSPs mentioned the role of both public and private health sectors in early diagnosis and effective treatment. They include shops and community health workers in case management. The CSPs for Uganda and Zambia consider scaling-up home management. Some CSPs include drug quality and guidelines on drug donations. Some consider pre-packing anti-malarial drugs in order to increase compliance. Treatment policy is clearly discussed in others.

On treatment delivery, the CSPs emphasize home management and IMCI as possible channels for treatment. IMCI, if effectively supervised, has the potential to improve case management at health facilities through its focus on training health workers and improving drug availability.

CSPs typically include ITN components. Some have advocated the use of social marketing, involving both public and private sectors, for net distribution. The public sector will play an important role in demand creation and in preparing an enabling environment (e.g. removal of taxes and tariffs) for people to access nets and insecticides.

A further evaluation of ITNs was conducted in South-East Asia, based on the ecology of malaria vectors. Malaria vectors are different, particularly in biting and resting behaviours. In Cambodia, *An.minimus* bites in the early evening. Yet most of the evidence on the effectiveness of ITNs comes from areas where the main malaria vector bites at night (i.e. during normal sleeping hours).

Several CSPs include other methods for vector control besides ITNs, for example, insecticide residual spraying (Eritrea, Ethiopia), and environmental management and larviciding using chemicals or biological agents (Eritrea and Ethiopia in specific sites). Surprisingly, the CSPs for Nigeria, Ghana and Senegal have also included larviciding and other methods for environmental management. These methods require further study. In many countries environmental management is widely believed to be an important component of malaria control despite the fact that there is little evidence of its effectiveness.

In particular, the role of environmental management methods as part of malaria control needs to be investigated in urban settings. Some experts still believe that environmental management is a cost-effective method in urban areas with dense populations. However, few studies compare this approach to the use of ITNs in urban areas. Studies evaluating ITN effectiveness have typically been carried out in rural rather than urban areas.

Annex K

The Stop TB Partnership

The goal of the Global Partnership to Stop TB (hereafter, the ‘Stop TB Partnership,’ or ‘the Partnership’) is to eliminate tuberculosis (TB) as a public health problem and, ultimately, to obtain a world free of TB. The Stop TB Partnership aims to promote a wider and wiser use of existing strategies to interrupt TB transmission through increased access to drugs and treatment; to adapt existing strategies to meet new challenges posed by emerging threats, such as multi-drug resistance and HIV-related TB; and to accelerate the elimination of TB through research for new diagnostics, drugs and vaccines. It promotes the use of the Global Drug Facility (GDF), which is a project of the Stop TB Partnership.

The Stop TB Initiative, a precursor of the Partnership, was launched in November 1998 by the Director-General of WHO, and was endorsed by the Amsterdam Declaration of Stop TB in March 2000. The Partnership was formed at the Bellagio meeting of the interim Stop TB Coordinating Board in February 2001. The Secretariat of the Stop TB Partnership is located within the Communicable Diseases Cluster at WHO, and in fact exists administratively within a WHO unit called by the same name, ‘Stop TB.’ The Partnership, although based at WHO, is a network of international organizations, countries, financial donors from the public and private sectors, governmental and non-governmental organizations, and other entities and individuals who have expressed interest in the Stop TB mission. The Stop TB Partnership is comprised of the following components: the Partners’ Forum, the Coordinating Board, the Working Groups, the Technical Advisory Group (STAG, which determines policy through WHO), the Global TB Drug Facility and the Secretariat.

The **Stop TB Partners’ Forum**, the main assembly of the Partners, consists of representatives of all the Partners. The Forum meets at least once every two years upon convocation issued by the Executive Secretary. The Forum’s mandate is:

- ❑ to identify problems and new challenges, and to exchange information among Partners;
- ❑ to consolidate and increase Partners’ commitment to Stop TB’s objectives, and to reinforce high-level political commitment to the Stop TB Partnership;
- ❑ to create and exploit opportunities for advocacy, communications and social mobilization; and
- ❑ to review overall progress towards implementation of the goals of the Stop TB Partnership, review reports presented by the Coordinating Board, and make recommendations to the Board.

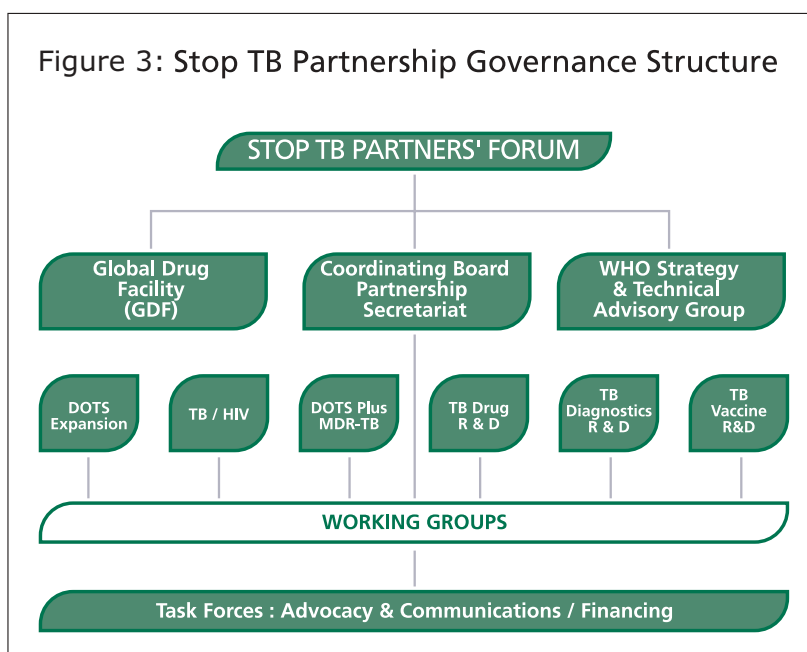
The **Stop TB Coordinating Board** is the coordinating mechanism for the Stop TB Partnership. To function effectively, it depends largely on the good will and cooperation of the Stop TB Partners, since the Board itself is not a legal entity. The composition of the Board reflects the major groupings and the diversity of the Stop TB Partnership, and consists of 27 members selected from amongst the Partners as follows: Working Group Chairs (6); representatives from six regions (nationals of countries in the six geographic regions of WHO) (6); high-burden country representatives (4); financial donors, public and private (4); international organizations having a health mandate (WHO, World Bank, UNICEF) (3); representatives from

NGOs/technical agencies (3); and the chairperson of the WHO TB STAG. To improve the workflow between its bi-annual meetings and electronic conferencing (when needed), the Coordinating Board created a Working Committee of six of its members to participate in weekly telephone conferences with the Secretariat. The mandate of the Coordinating Board is:

- to set priorities for action in accordance with WHO technical advice and in light of recommendations of the Forum;
- to approve the workplan and budget of the Secretariat;
- to mobilize resources, and to identify funding gaps and priorities;
- to coordinate and promote advocacy and social mobilization;
- to review the progress of the Stop TB Partnership toward implementation of its goals, and to adopt appropriate rules or guidelines to ensure the proper functioning of the Partnership; and
- to facilitate, coordinate and review the activities of the various working groups.

The **Secretariat** is the implementation arm of the Stop TB Coordinating Board. The Secretariat's staff is provided partly by WHO and partly by staff seconded from partner organizations. The head of the Secretariat is appointed by the Director-General of the WHO in consultation with the Coordinating Board. Administratively, this position reports to the Director of Stop TB, the head of a WHO programme department contained within the Communicable Diseases cluster. In principle, the Secretariat is accountable to the Stop TB Coordinating Board. Its specific functions include:

- Preparation of an annual work plan and budget for the Stop TB Partnership, including plans and budget for the Secretariat;
- Support for the procurement, quality control, and monitoring and evaluation functions of the Global TB Drug Facility, in conjunction with other agencies;
- Maintenance of close and regular contact with the Working Groups to facilitate coordination and to support their work;
- Development of effective communication strategies to support the Stop TB campaign
- Information sharing within the Stop TB Partnership; and
- Administrative support to the Board, the Working Groups and the Forum.



The **Working Groups** are the primary vehicles for coordinating activities of the Partnership. Working Groups are created and dissolved as needed (and recommended) by the Board. The existing six working groups include one which focuses on DOTS expansion, one which addresses HIV-related TB, one focused on multi-drug resistant (MDR) TB, and three which concentrate on the development of new tools (drugs, diagnostics and vaccines) for combating TB. The membership of the Working Groups is open and inclusive. Each of the Working Groups has independent governance mechanisms, but works under the umbrella of the Global Partnership to Stop TB. In some cases, the Working Groups are already fully-fledged organizations in their own right (e.g. the Global Alliance for TB Drug Development).

One of the six Working Groups – the Working Group on DOTS Expansion – is responsible for providing technical advice to countries on behalf of the Stop TB Partnership. The DOTS Expansion group works closely with the Regional Offices of WHO, with technical Partners, and with TB Medical Officers assigned to more than half of the 22 high-burden countries. The WHO TB Medical Officer serves as technical advisor, coordinator and advocate, and is intended as a source of knowledge and expertise for the National Programme Officer (NPO) to draw on. Although the WHO TB Medical Officers sit either at the WHO country offices or National TB programme offices, and are officially WHO employees, they are frequently seconded from other partners within the Stop TB Partnership.

Annex L

The Global Alliance for Vaccines and Immunization

The Global Alliance for Vaccines and Immunization is a partnership of organizations involved in global immunization efforts. GAVI was launched in January 2000 to address flagging interest in childhood immunization, and is dedicated to ensuring that all children, however poor, have equal access to routine immunization with the six basic vaccines against polio, diphtheria, whooping cough, tetanus, measles and tuberculosis. It aims to increase access among poor children in developing countries to vaccines that are widely available to children in the industrialized countries, such as hepatitis B, Haemophilus influenzae B (Hib) and yellow fever. Finally, its goal is to promote research and development for new vaccines against major killers of the world's poor, including HIV/AIDs, TB and malaria.

A major focus in GAVI's first two years of existence has been to support expanded immunization programmes in developing countries. All countries with incomes of less than \$1000 GNP per capita are eligible for financial support, although exceptions were made to include China, India and Indonesia due to their large poor populations. Eligible countries have been encouraged to apply for financial assistance in response to specific calls for proposals.

Partners' Meetings provide the primary forum for a gathering of stakeholders and like-minded constituencies to exchange views on matters relating to the Alliance. The provisional agenda for the Partners' Meetings is prepared by the Executive Secretary of the Secretariat in consultation with the Working Group and the Chair of the GAVI Board. Meetings are held approximately every two years.

The **GAVI Board** is the main decision-making body of the Alliance. It comprises 15 members, and meets on a bi-annual basis. There are four renewable members: the Bill and Melinda Gates Foundation, UNICEF, the World Bank and WHO. There are eleven additional rotating members responsible for representing the collective expertise of the broader alliance and the perspective of their individual constituencies. These include representation from foundations (1), developing country industry (1), OECD industry (1), research institutions (1), technical health institutions (1), non-governmental organizations (1), developing country government representatives (2), and OECD government representatives (3). The main functions of the GAVI Board are to:

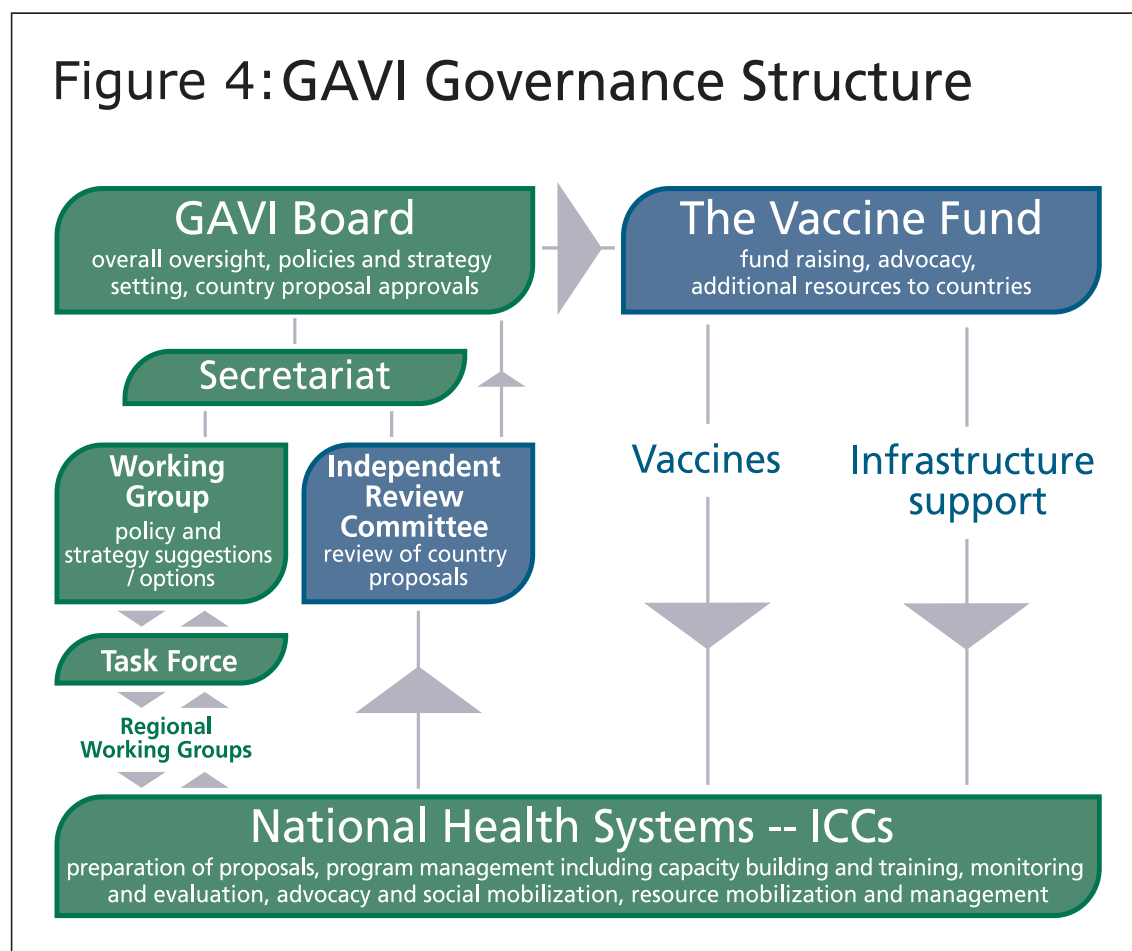
- Review, approve and update joint objectives and milestones;
- Consider the recommendations of the Independent Review Committee, approve support for country immunization programmes, and request disbursements of the Vaccine Fund;
- Monitor the activities of Partners in undertaking certain strategies and activities;
- Approve the budgets of the Secretariat and task forces;
- Contribute to fundraising and advocacy, through its members;
- Nominate the Executive Secretary;
- Shape the strategic vision and direction for the Alliance; and
- Stimulate GAVI partners to adopt new approaches and behaviours.

The **Vaccine Fund Board** is tasked with the responsibility of raising global awareness of the GAVI immunization goals, to disburse existing funds in support of these goals, and to raise additional funds. The Board meets on an annual basis, although its members are expected to work actively to support the Fund throughout the year.

The **Working Group** is the implementation arm of the Alliance. Working Group members represent the Partner agencies and are tasked with translating GAVI priorities into their respective agency workplans. The Working Group currently consists of nine members, namely WHO, UNICEF, the World Bank, the GAVI Secretariat, the Global Fund for Children’s Vaccines, the Gates Children’s Vaccine Program at the Program for Alternative Technology in Health (PATH), the University of Maryland School of Medicine, USAID, and Wyeth-Ayerst Labs. The main functions of the Working Group are to:

- ❑ Communicate major Board decisions – such as new Fund policies and country proposal decisions – to partner constituencies at the regional and national levels;
- ❑ Monitor progress in identifying issues arising from Partners (including task forces, regional working groups, and countries) that require Board decisions);
- ❑ Prepare background documentation for the Board to facilitate its decision-making;
- ❑ Oversee the operations of GAVI structures, including the coordination of task forces and the monitoring of its progress.

The **Secretariat** is the administrative arm for the Alliance, supporting the activities of the Board and the Working Group. It contains five professional staff and two secretaries, and is housed in the European Regional Office of UNICEF in Geneva. Its main responsibilities revolve around coordination of the partners and managing the review of country proposals to the Vaccine Fund.



Four **task forces** were established to address specific issues of concern to the Board. Task forces are funded and managed by their respective lead agencies, but supplementary funding may be provided by the Secretariat when appropriate. The expectation is that the task forces will be created and dissolved in response to changing circumstances and needs of the Alliance. The four existing task forces are:

- ❑ Financing (Co-chaired by the World Bank and USAID);
- ❑ Research and Development (Co-Chaired by WHO, NIH, and Chiron Vaccines);
- ❑ Advocacy (Chaired by UNICEF); and,
- ❑ Country Coordination (Co-Chaired by WHO and the Government of Norway).

The **regional working groups** were created to provide technical expertise on demand to countries, and to coordinate technical support and information sharing between the national and international levels. In some cases, they are strongly linked to WHO regional activities. In the future, it is envisaged that the regional working groups will take an active role in overseeing, analyzing and supporting the work of national Interagency Coordinating Committees.

At the country level, the primary vehicle for promoting the goals of the Alliance are the **Interagency Coordinating Committees (ICCs)**. Many ICCs were originally focused on polio eradication, but have now expanded to coordinate the broader Partnership activities around immunization. The roles and functions of the ICCs vary considerably from country to country, depending on the size, strength of the government, and the presence of other health system coordinating groups (such as SWAs). However, they are involved in coordination of capacity building and training; monitoring and evaluation; establishing appropriate linkages with broader health and development frameworks; advocacy and social mobilization; and financial expertise.

Annex M

Malaria Control Strategy of the African Development Bank Group

Executive Summary

1. Malaria remains a serious impediment to socio-economic development in Africa. Out of the annual clinical cases of malaria in the world, estimated at 300-500 million, approximately 90% occur in Africa. More than 1 million people die of malaria annually, the majority of whom are in the African region. The poor are most at risk from malaria deaths as 58% of all deaths in the world occur among the poorest 20% of the world's population. Employed persons and principal child carers can lose up to 10 productive days for each time when they themselves or their children contract malaria. Direct costs borne by individuals, households and governments include the costs of treatment and prevention. Studies on the macro-economic impact of malaria indicate that countries with a substantial high burden of malaria grew at 1.3% per year less, and that a 10% reduction in malaria was associated with a yearly 0.3% increase in Gross Domestic Product.
2. The high burden of this disease in Africa is due to the fact that malaria endemicity affects a significant number of countries where the transmission is stable. Moreover, the situation is worsening due to limited investments in malaria control, development of malaria parasites resistance to drugs and mosquito resistance to insecticides as well as weak health systems. Realizing that malaria impedes socio-economic development and poverty reduction, the African Development Bank's Health Sector Policy, adopted in 1996, recognizes malaria as one of the major diseases in Africa requiring priority investment. Meanwhile, the resurgence of malaria has necessitated that the Bank re-examine its malaria control activities to date, and re-assess further actions it can support to combat this disease. The Bank, therefore, is proposing a multi-sectoral Malaria Control Strategy for its operations to complement Roll Back Malaria (RBM) activities in the Regional Member Countries (RMCs).
3. This document presents a strategy that is formulated on the basis of the epidemiological situation, and the social and economic impact of malaria in the Bank's RMCs. The Malaria Control Strategy reflects the measures presently being promoted in international malaria control initiatives, and describes the Bank's past investments and lessons learnt in malaria control. It also defines the goal, objectives, guiding principles, priority areas and specifies the Bank's multi-sectoral approach.
4. The goal of the Bank's Strategy is to complement actions being taken to promote accelerated economic growth with equity and poverty reduction as central goals in Africa. Its objective is to contribute to the reduction of the social and economic burden of malaria in Africa by:
 - Increasing the Bank's support to RMCs to enhance the formulation and implementation of appropriate and evidence-based malaria control interventions in various sectors and in emergency assistance;

- ❑ Ensuring that Bank-financed projects, particularly those in non-health sectors (agriculture/rural development and infrastructure, education, private etc), integrate effective and appropriate environment and social management plans to mitigate against the potential impact of malaria transmission; and
 - ❑ Exploiting opportunities to reinforce knowledge, attitude, practices and behaviour change to build awareness of malaria control strategies as part of human resources development.
5. The Bank endorses the elements and principles laid down by the RBM initiative that has the overall objective of reducing the global burden of malaria by 50% by 2010. The initiative launched by WHO, UNDP, World Bank and UNICEF is now supported by other development partners including the African Development Bank. In addition, the Bank will be guided by the following principles:
- ❑ Selectivity and focus: Promoting a wide-range of interventions in malaria control that are proven to be efficacious in averting mortality and disability, and also cost-effective, given the complex interaction between malaria parasites, vector mosquitoes and human populations;
 - ❑ Feasibility of approaches and affordability: Supporting the integration of malaria control measures across sectors of RMCs to maximize the use of available resources including co-financing mechanisms;
 - ❑ Empowerment: Assisting individuals, families, communities, governments, institutions, private sector and media among others to contribute towards national efforts in malaria control, and at a sustainable level of effort; and
 - ❑ Participatory approaches and strategic partnerships: Involving beneficiary communities and the sub-groups within them, and working through strategic partnerships with specialized lead agencies in implementing best practices to assist multi-sectoral malaria control actions in RMCs.
6. The main priority areas for malaria control which the Bank will support in partnerships with RMCs include:
- ❑ Formulation and implementation of malaria interventions in various sectors in RMCs targeting vulnerable groups particularly those in rural areas as well as communities and workers at increased risk of malaria infections due to environmental and occupational factors, as part of poverty reduction actions;
 - ❑ Development of appropriate frameworks, at country level, that promote good environmental and social assessment, and management of conditions favorable to reducing malaria transmission;
 - ❑ Improvement of existing public services and infrastructure to strengthen the implementation of the malaria control interventions, and related cost-recovery mechanisms where issues of equity will not marginalize poor and vulnerable groups;
 - ❑ Promotion of macroeconomic policies that can enhance malaria control programmes through such actions as the reduction or exemption of taxes and tariffs on anti-malarial products including local production of these products, on both large scale and micro-enterprise basis, within the context of appropriate fiscal and regulatory frameworks;
 - ❑ Advocacy for public-private sector partnerships that encourage participation of Africa-based companies in national malaria control programmes; and
 - ❑ Advancement of operations research, at country and regional levels, aimed at increasing the availability of new anti-malarial drugs including vaccines, and tools for mosquito vector control as well as exploring new opportunities such as the integration of known safe and effective African traditional medicines into the health systems of RMCs.

7. The Bank will employ the strategies that will complement and support country programmes as outlined in the Country Strategy Papers (CSPs), and prevailing sector operational policies, underlining the following:
 - Policy dialogue and technical assistance to enhance malaria control concerns and support RMCs to create favourable macroeconomic policies and frameworks;
 - Multi-sectoral strategies and targeted approaches to mainstream malaria control measures in Bank-financed operations including malaria risk assessment with a view to developing mitigation against increased transmission associated with development projects;
 - Reinforcement of knowledge, attitude, practice and behaviour change through malaria information and sensitization activities; and
 - Development and sustainability of effective partnerships to mobilize domestic and external resources to address malaria control as well as ensure that communities receive an appropriate mix of synergistic multi-sectoral interventions.

8. The Bank's Malaria Control Strategy builds on the Global Malaria Control Strategy adopted by Regional Member Countries and lead specialized agencies. It optimizes the Bank's comparative advantage of capacity and capability for multi-sectoral support to RMCs. This document is complemented by specific measures and actions recommended for Bank investment that constitute the multi-sectoral Malaria Control Operational Guidelines.

