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INTENSIFYING THE FIGHT AGAINST **MALARIA**

THE WORLD BANK'S
BOOSTER PROGRAM FOR MALARIA CONTROL IN AFRICA

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Foreword

When the World Bank published *Rolling Back Malaria: The World Bank Global Strategy and Booster Program* in 2005, the world had what now seems like a modest goal of halving malaria deaths in Africa by 2010. At the time, many thought that target unrealistic and doubted the commitment of both African and global partners to achieving it. Since then, an influx of new funding, new partners, and remarkable successes in several Sub-Saharan African countries have reenergized the global malaria control movement. These developments, combined with a recognition that to do too little about malaria will cost too much in terms of lives lost and lower economic productivity and growth, convinced the global community that we could and should adopt a more ambitious goal—the elimination of malaria as a public health problem on the continent.

This surge of optimism took place as the World Bank was developing the second phase of its Booster Program for Malaria Control in Africa. We embraced this new goal and incorporated it into our strategy, which has been vetted and revised with many stakeholders over several months.

The 2005 *World Bank Global Strategy and Booster Program* reiterated the Bank's corporate commitment to helping reduce the burden of malaria in Africa. This was translated into concrete action in Africa through the Booster Program for Malaria Control in Africa. This program helped generate increased political commitment by governments, helped bring in new partners, and greatly increased the availability of nets, drugs, insecticides, personnel, and skills to combat malaria. The new *Intensifying the Fight against Malaria*: The *World Bank's Booster Program for Malaria Control in Africa* takes the next step—building on lessons learned in the first three years, adapting to the markedly changed environment and expectations, and reconfirming the World Bank's unwavering commitment to helping end malaria's stranglehold on Africa.

The World Bank remains committed to the global malaria effort not only because it is a major public health issue, but also because it costs Africa about US$12 billion a year and helps to keep families and communities in poverty. Our mission to fight poverty demands that we help our clients remove this disease as a hindrance to their development. In its first three years (2006–08), the Booster Program committed over US$470 million to malaria control on the continent. Focusing on a two-pronged approach of combining disease control

interventions and health systems strengthening, the program worked with countries and other partners to contribute significantly to the global effort to fight the disease.

Phase II (2009–2011) of the Booster Program will intensify and expand the Bank's efforts. On September 25, 2008, at the United Nations Special Session on the Millennium Development Goals, World Bank President, Robert B. Zoellick, announced a US$1.1 billion expansion of the program. The Phase II strategy establishes the rationale for our redoubled commitment. It is designed in a way that enables the World Bank to use its comparative advantage to contribute to the elimination of malaria in parts of Africa by 2015, a goal set by the Roll Back Malaria Partnership and the United Nations Secretary General.

Malaria is both preventable and treatable. Major reductions in the deaths and illness it causes are possible within the next several years. Attacking the disease full-force with a front-loaded effort will have tremendous impact on health and economic outcomes. African nations and the global community are gearing up to meet the ambitious new goals. In line with its commitment to poverty reduction and development in Africa, the World Bank is called upon to play a leadership role in this effort. Phase II of the Booster Program for Malaria Control in Africa is the Bank's affirmative and emphatic response to this call.

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The Malaria Implementation Resource Team would like to acknowledge the invaluable support and contributions received from the many colleagues, institutions, and agencies involved in the implementation of Phase I of the Booster Program for Malaria Control in Africa and in the development of the program's Phase II strategy. Our work matters only to the extent that it helps to save lives by complementing and encouraging the work of others. The list of those who have helped is extremely long, so we will not attempt to name everyone. We hope we expressed our gratitude along the way.

Our senior management and colleagues in the World Bank Group have played and continue to play a crucial role. Africa Region Vice President Obiageli Ezekwesili; Vice President of the Human Development Network Joy Phumaphi; Mark Tomlinson, Director, Regional Integration; the Africa Region's Senior Leadership Team, Sector Managers, and Task Team Leaders; Ok Pannenborg, Senior Advisor for Health, Nutrition, and Population, Africa Region; Agnès Soucat, Lead Economist and Advisor, Health, Nutrition, and Population, Africa Region; Olusoji Adeyi, Coordinator, Public Health Programs, Human Development Network; Julian Schweitzer, Director, Health, Nutrition, and Population, Human Development Network; and Suprotik Basu, former World Bank colleague, have ensured that the Booster Program and Phase II strategy received the attention and guidance needed to get the results we and the world earnestly seek. Africa and

the global community stand at a turning point in the long battle against malaria. Phase II of the World Bank's Booster Program for Malaria Control in Africa stands ready to help round the corner and begin the march toward elimination of malaria as a major public health problem.

We thank the entire Roll Back Malaria (RBM) Partnership, and in particular Professor Awa Coll-Seck for her superb leadership. We appreciate the time and insight of the High-Level Advisory Committee and everyone else who participated in the Phase II consultations. We highlight the outstanding support of Tedros Adhanom Ghebreyesus, Minister of Health of the Federal Democratic Republic of Ethiopia and current Chair of the RBM Board; Rajat Gupta, Chair of the Global Fund to Fight AIDS, Tuberculosis, and Malaria; Rear Adm. Tim Ziemer, U.S. Malaria Coordinator, President's Malaria Initiative; Dr. Steven Phillips, Medical Director, Exxon Mobil; and the United Nations Special Envoy for Malaria Ray Chambers. We truly appreciate the time and energy invested by the Ministers of Health of the Democratic Republic of Congo and Nigeria, whose countries are a main focus of the Phase II strategy, and the many Ministers of Health and Finance who determined it would be worthwhile to participate in the Booster Program. We also gratefully acknowledge the contributions of the African Union and its members, the Corps of African Ambassadors based in Washington, DC, and our counterparts in Africa.

Abbreviations

AAP	Africa Action Plan
ACTs	Artemisinin-based combination therapies
AIDS	Acquired immune deficiency syndrome
AMFm	Affordable Medicines Facility for malaria
AU	African Union
CORE	Collaborations and Resources (Group)
DHS	Demographic and health survey
Global Fund	Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria
GMAP	Global Malaria Action Plan
HIV	Human immunodeficiency virus
HNP	Health, Nutrition, and Population (Strategy)
HWG	Harmonization Working Group
IDA	International Development Association
IEC	Information, education, and communication
IHP	International Health Partnership
IRS	Indoor residual spraying
ITN	Insecticide-treated net
LLINs	Long-lasting insecticidal nets
MACEPA	Malaria Control and Evaluation Program in Africa
MDGs	Millennium Development Goals
M&E	Monitoring and evaluation
MERG	Monitoring and Evaluation Reference Group
MIRT	Malaria Implementation Resource Team
MIST	Malaria Implementation Support Team
NGO	Nongovernmental organization
PMI	President's Malaria Initiative (United States)
RBM	Roll Back Malaria (Partnership)
RDT	Rapid diagnostic test
RF	Results Framework
RIAS	Regional Integration Assistance Strategy
SP	Sulfadoxine-pyrimethamine
SUFI	Scaling up for impact
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development

Overview

The World Bank, in response to requests from its member nations and other partners, launched the Booster Program for Malaria Control in Africa in 2005. The Booster Program is a 10-year program designed to help African nations meet the malaria control targets to which they agreed in Abuja, Nigeria, in 2000. The Abuja targets set for 2005 were not reached by most countries and were revised for 2010 to ensure that at least 80 percent of those at risk of, or suffering from, malaria benefit from major preventive and curative interventions.

This document describes the purpose and context of the Booster Program, its first three years of operation (Phase I from July 1, 2005, to June 30, 2008), and the proposed design of Phase II (from July 1, 2008, to June 30, 2011) of the program. Phase II seeks to build on the successes of and lessons learned from Phase I and to enable the World Bank to play its expected role in scaling up and sustaining malaria control interventions to reach the new ambitious but achievable global goal set by the Roll Back Malaria (RBM) Partnership—of eliminating malaria as a major public health problem in Africa by 2015. The Bank has subscribed fully to this agenda, as illustrated by statements made by senior management in several public forums.

Background

Malaria is both preventable and treatable. Yet approximately 1 million people die from it annually—including 3,000 children per day. Malaria is a parasitic disease transmitted by the *Anopheles* mosquito. Over 500 million cases of malaria are estimated to occur each year. Ninety percent of malaria

deaths occur in Sub-Saharan Africa, where the most severe form of the disease prevails. Deaths and disability (both short term and long term) from malaria have enormous social and economic costs. The disease kills more children under the age of five in Sub-Saharan Africa than any other single disease, and it is a major cause of complications, including death, in pregnant women.

Malaria is not only a health problem but also a development problem. In economic terms, malaria costs African countries an estimated US$12 billion per year in lost productivity. Treatment of severe episodes can cost up to one-quarter of a household's monthly income and accounts for up to 40 percent of public sector health expenditures in the most affected countries. Operating in a vicious cycle, it is both a cause and consequence of poverty. Because of its wide-ranging effects, malaria is both a health priority and a development priority for the World Bank.

Malaria keeps countries as well as households in poverty—annual economic growth in countries with high malaria transmission has historically been lower than in countries without malaria. Leading economists have estimated that malaria is responsible for an "economic growth penalty" of up to 1.3 percent per year in malaria-endemic African countries. It has been well documented that malaria discourages internal and foreign investment and tourism, affects land use patterns and crop selection (resulting in suboptimal agricultural production), and reduces labor productivity through lost work days and diminished on-the-job performance. Malaria affects learning and scholastic achievement through frequent absenteeism and through the effects of anemia and iron depletion, which can cause cognitive impairment in children who suffer severe or frequent infections; in some cases, malaria can even result in permanent neurological damage.

However, effective tools for preventing and treating malaria do exist. Artemisinin-based combination therapies (ACTs) are a highly effective way to treat the disease. Prophylactic use of other drugs can prevent malaria in pregnancy. Long-lasting insecticidal nets (LLINs) reduce mosquito populations and, thus, malaria transmission, as does indoor residual spraying (IRS) where this is epidemiologically appropriate. The Copenhagen Consensus 2008 estimates that providing a combination of malaria prevention and treatment interventions to at-risk populations in Sub-Saharan Africa would yield a benefit-cost ratio of US$20 for every US$1 spent. Some recent analyses have argued that malaria control can be made even more cost-effective if access to both preventive and curative interventions can be rapidly increased.

In 1998, the RBM Partnership was formed by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), and the World Bank to serve as the leading platform for mobilizing resources and action and for coordinating global efforts in the fight against malaria. The Partnership aims to remove any obstacles to the widespread, consistent use of these and other appropriate interventions. These obstacles include the prohibitive cost of interventions given the very low incomes of those most affected, the ability of the mosquito and the parasite to develop a resistance to insecticides and drugs, respectively, and the need for people and systems to be ready to adopt and maintain new practices. However, with a concerted effort, these challenges can and must be overcome. In partnership with governments, international agencies, donors, civil society, the business community, and many others, the World Bank seeks to bring about a dramatic and sustainable increase in the use of a comprehensive package of malaria control interventions by providing International Development Association (IDA) resources, technical support, and other forms of assistance to malaria-stricken countries wherever necessary and appropriate.

The Booster Program for Malaria Control in Africa

The World Bank's funding for malaria control was very limited between 2000 and 2005 (just US$50 million in all of Sub-Saharan Africa) and primarily focused on improving health systems. Given that this approach failed even to stabilize malaria rates in Africa, much less to reduce them, the Booster Program has taken a different approach.

A Two-Pronged Approach: Combining Disease Control Interventions and Health Systems Strengthening

The Booster Program's approach makes available flexible, cross-border, and multisector funding for country-led initiatives to scale up proven malaria control interventions and to strengthen health systems. Countries take the lead in prioritizing, planning, implementing, and evaluating the malaria control initiatives within their borders. Given that both disease-specific initiatives and solid country health systems are needed to make a significant impact on the ground, the Booster Program takes a two-pronged approach:

it aims to bring malaria under control with key malaria control commodities that are crucial for interrupting transmission, while also supporting more general improvements in health systems, including decentralized budgeting and planning, health financing, capacity building throughout the supply chain for procurement and forecasting of commodities, and strengthened monitoring and evaluation (M&E). Currently, Booster Program funding supports both health systems strengthening and the purchase and distribution of malaria control commodities in a number of projects.

Within the context of the RBM Partnership, the Bank uses its advantages relative to other partners to help countries identify and fill gaps in financing, break through bottlenecks, and achieve the goals of their national malaria control plans. The Bank has created a small team—the Malaria Implementation Resource Team (MIRT)—to coordinate activities under the Booster Program. The MIRT advises the Bank on technical and financing strategies, supports the Bank's malaria task teams and clients, ensures program quality and documentation, develops both internal and external partnerships, and promotes the generation, management, and sharing of knowledge on the subject of effective malaria control.

Phase I Results

Phase I of the Booster Program operated in 19 countries, covering a vast area inhabited by a total of 258 million people. It committed US$455.2 million to malaria control activities, with an additional US$15.0 million in the pipeline, together totaling US$470.2 million. This represents a ninefold increase in the Bank's funding for malaria control since the start of the Booster Program in June 2005. During the program's Phase I, US$139 million was spent on purchasing and distributing key malaria control commodities that are crucial for interrupting transmission and on strengthening the effectiveness of health systems in providing these and other essential services (the US$5 million Booster project in Malawi was cancelled during the production of this publication; subsequent Booster Program documents will reflect this change).

Of the 258 million people living in the areas covered by Phase I, 45 million are children under the age of five years and 11 million are pregnant women. Although most Booster Program projects have been effective for less than two years, which is too short a time to fully implement a national program and document its impact, early results are promising. One example of a successful initiative supported under Phase I is Benin's LLIN cam-

paign, which distributed 1.7 million bed nets (1.4 million of which were purchased with IDA funds) nationwide—the first LLIN distribution covered Benin's entire under-five population. Phase I of the Booster Program also engaged new partners such as the Russian Federation; organized the conference that led to the Dakar Appeal, which called for better coordination of resources, planning, and M&E so that countries can use the funds at their disposal more efficiently; and monitored the outcomes of investments.

Phase I Lessons

The implementation of Phase I yielded several lessons that have been useful inputs into the design of Phase II.

1. The funding level, although nine times the amount that the World Bank had committed between 2000 and 2005, was insufficient for most Booster Program countries to develop and implement plans for a full, nationwide scale-up of their key malaria control activities.
2. The Bank could have been better at exploiting its comparative advantages in devising innovative financing mechanisms, supporting more cross-sectoral projects, and providing more regional (as opposed to country-specific) support.
3. A major impetus on M&E is still needed to put into practice the consensus among development organizations about the importance of tracking progress on meeting malaria control objectives and to intensify M&E for decision making at the country level.
4. Country programs needed more supervision and technical support from the Bank than was funded by the budget.
5. Countries need to strengthen their implementation capacity in order to be able to use their malaria funding effectively.
6. Having a core Bank team dedicated to managing the Booster Program in the Africa Region is crucial for maintaining a focused, well-coordinated program and for enabling the Bank to play a leadership role in the fight against malaria.
7. Country leadership is fundamental to implementing successful malaria control programs.

8. Scaling up the coverage and use of effective malaria control interventions while strengthening health systems is essential for yielding positive health outcomes.

Phase II

The international community has established two goals for the near term: reduce the burden of malaria in Africa by 50 percent by 2010, and eliminate malaria as a major public health threat in Africa by 2015. Phase II of the Booster Program will contribute to the achievement of these goals, and by 2015 malaria will no longer be a leading cause of child mortality in areas covered by the Booster Program.

The design of Phase II reflects three factors: (i) key challenges in the fight against malaria, (ii) lessons that have emerged from Phase I, and (iii) the comparative advantages of the World Bank within the international development community.

Phase II will focus on massive front-loaded efforts (meaning the use of strong, concentrated efforts at the outset of an initiative) to scale up effective malaria control interventions and move Africa closer to eliminating malaria. The funding requirements for the three years of Phase II are estimated to be US$1.125 billion from IDA's country and regional envelopes (that is, the resources IDA allocates to countries based on their performance).

Context and Challenges

The ambitions of countries and their development partners have grown considerably since the launch of the Booster Program. Global funding has increased by 300 percent because malaria control is seen as both achievable and essential for development. Acknowledging the long-term need to eradicate malaria, and the possibility of doing so with the help of new tools being developed, the development community, including the Bank, has adopted the medium-term goals of scaling up for impact (SUFI) in all affected countries and of sustaining that scale-up to eliminate malaria as a major public health problem. **Malaria is the only major disease for which major reductions in morbidity and mortality are possible within the next five years.**

Malaria control represents the proverbial low-hanging fruit that could have tremendous impact on health outcomes in a short period of time. Reducing the number of malaria cases by interrupting transmission is possible, but only when enough people have access to tools that have been

proved to be effective in the fight against malaria (for example, 80 percent of households currently have and use insecticide-treated bed nets). The expectation is not only that SUFI will save 3.5 million lives over the next five years but also that it will shrink the malaria map, making eradication more feasible. In this context, an announcement of a new effort to mobilize human and technical resources for SUFI in the context of the elimination agenda was made at the Davos World Economic Forum in January 2008 by key development leaders, including World Bank President Robert Zoellick.

The RBM Partnership has adopted the Global Malaria Action Plan (GMAP) to increase the engagement and the efficiency of the Partnership, and the United Nations has announced a new Framework for Action calling for universal coverage of effective interventions by 2010, to which all partners have subscribed. SUFI and elimination will require donors to commit most of their resources early and up front to achieve the full impact. This is very different from what has been done in the past, when resources were spread too thinly to make a significant difference at the national level.

Phase II reflects the Bank's commitment to this new agenda set forth by RBM partners and the United Nations. This commitment has been evident in a variety of official statements, such as the Bank's participation in the Millennium Development Goal (MDG) Africa Steering Group and Bank President Robert Zoellick's emphasis on malaria control as a global public good, as well as the institution's Africa Action Plan (AAP), its strategy for addressing climate change in the Africa Region, and its Health, Nutrition, and Population (HNP) Strategy. The HNP Strategy, in particular, states that investments in disease control programs and in the strengthening of health systems are mutually reinforcing and necessary to achieve and maintain positive health outcomes.

There are some significant challenges to realizing SUFI and the elimination of malaria, but these can be overcome with better collaboration among development partners and with adequate resources. These challenges are not exclusive to the Bank but are faced by all governments and organizations engaged in the fight against malaria. They include the following:

- *Commodity procurement delays* caused by weak supply-chain management and bureaucracy in countries and within the Bank, often resulting in drug stock-outs and the arrival of LLINs after the peak transmission period when they were most needed.
- *Difficulties in coordinating among donors* because of their different systems, timelines, and other constraints, resulting in inefficiencies in program

planning, implementation, and evaluation. Progress has been made on this front, but more needs to be done.

- *Insufficient capacity at the country level* to implement, link, and monitor a complex set of related activities.
- *Incomplete and untimely data*, because many countries still have limited capacity for collecting and using data in program-related decision making.
- *Health system constraints* such as shortages of health workers, the insufficient training and motivation of health workers, and weak supply chain management.
- *Delays in the introduction of ACTs*, due to understandable time lags at the country level between changes in policy and their implementation, the initial high cost of ACTs, and the lack of long-term ACT financing schemes.
- *The need for an extra US$2 billion per year* to close the funding gap for controlling malaria in Africa over the next five years.

Consultative Design Process

The Malaria Implementation Resource Team (MIRT) set up a high-level advisory committee consisting of representatives of key partners and client countries, to provide input into the design of Phase II. The MIRT also brought together a broader group of more than 40 key stakeholders, including three ministers of health and representatives of client governments and the African Union (AU), global partners and donors, the private sector, malaria advocates, nongovernmental organizations (NGOs), and World Bank staff. The broader group's task was to review progress, challenges, and successes stemming from Phase I and to come to agreement on the priority actions that the Bank needed to undertake in Phase II as part of the global partnership. The advisory committee continues to review and provide input on the strategy and will continue to provide advice to the program once the Bank has approved the Phase II strategy.

Phase II Design

The design of Phase II has been endorsed by all members of the RBM Partnership and by the Bank's client countries. There are several key differences between Phases I and II. First, the level of ambition is higher in Phase II

and, consequently, so is the amount of funding that will be required to achieve its goals. Second, Phase II puts more emphasis on maximizing impact in the largest high-transmission countries and on favoring strategic funding rather than the opportunistic initiatives that were necessary to launch Phase I. Third, Phase II will provide more support to countries and task teams to help them implement the Booster projects. Fourth, Phase II will further strengthen M&E so that reliable data can be gathered on results and outcomes. Fifth, it will capitalize on the Bank's comparative advantages in being able to provide regional support and flexible, innovative financing. Finally, Phase II will put more emphasis on maximizing the effectiveness of the global antimalaria partnership and on strengthening advocacy to and communication with the public.

Phase II of the Booster Program is built on five pillars, reflecting country-defined needs and the agreement of all the Bank's partners on how the Bank can capitalize on its comparative advantages in supporting malaria control:

- *Pillar 1—Regional and cross-border prevention and control.* Malaria has no borders. The progressive elimination of malaria depends not only on a country's own national program but also on the efforts made by its immediate neighbors. Among donors, the Bank is uniquely placed to support regional and cross-border investments in malaria control.

- *Pillar 2—Intensified support to the two high-burden countries with high unmet need, the Democratic Republic of Congo and Nigeria.* These two countries account for 50 percent of malaria infections and deaths in Africa. The overall targets for Africa cannot be achieved if these two countries do not make substantial progress toward theirs. Financial support for malaria control in these high-burden countries is disproportionately low in per capita terms. Country assessments conducted by the RBM Partnership will provide the information from which to develop comprehensive intervention packages for both countries. The Bank will play a leading role in these countries as determined by the countries themselves and by the Bank's RBM partners.

- *Pillar 3—Sustained support for ongoing programs and a targeted approach to new country efforts.* Most Phase I investments are relatively new and therefore are just beginning to generate results. Phase II investments will help to sustain and increase the impact of these first investments and will support new, focused strategic activities based on demand from countries, the efforts of

other donors, and the cost-effectiveness of different types of interventions, as needs assessments are being updated by RBM in those countries.

- *Pillar 4—Facilitation of policies and strategies to increase equitable access to effective treatment.* Access to effective treatment is still far from universal. Pillar 4 will support innovative approaches through the private sector and communities to increase the access of poor and rural families to high-quality, effective treatment. It will also support global efforts to make treatment more affordable.
- *Pillar 5—Strengthening of essential health systems in Booster countries to scale up the delivery of malaria interventions.* Phase II will help address key bottlenecks in most national health systems that constrain the effective control of malaria (and other diseases) by (i) improving procurement and supply chain management, (ii) decentralizing resource planning and management, and (iii) strengthening monitoring and evaluation. The program's support for strengthening health systems will be customized to each country's needs.

Each of these pillars has a specific goal and rationale, as well as a selection of activities that will be tailored to meet country and regional needs. Phase II of the Booster Program is specifically designed to complement and leverage the efforts of other donor partners, especially the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the President's Malaria Initiative (United States). This complementarity is particularly evident in the focus on regional and cross-border control of malaria and on health systems strengthening, which have been inadequately addressed by other donors and are comparative advantages of the Bank. It can also be seen in the concentration of the Bank's efforts in large high-burden countries such as Nigeria and the Democratic Republic of Congo, where the resource needs are extremely high. In these contexts, coordinated and complementary financing strategies with other donors are necessary to provide equitable access to essential malaria prevention and treatment services for the whole population. In fact, Nigeria's Global Fund Round 8 application is designed to establish this complementarity and explicitly takes into account the Bank's investment in malaria and health systems.

Phase II will also strengthen the program's M&E component, which is now even more critical given that elimination is the ultimate goal. Not only is it important to ensure that investments translate into results on the

ground; it is also essential to be able to discern where problems persist in order to prevent malaria transmission from recurring, which could seriously jeopardize the attainment of the elimination goal. Phase II will therefore involve several discrete yet interrelated aspects of M&E work. These will include supporting comprehensive country-level M&E systems for routine data collection as well as periodic assessments. Within the Bank, a monitoring system will be refined, both to track progress in each project and, overall, to allow the MIRT to make program adjustments as necessary. Finally, M&E work in Phase II will also support joint progress tracking across the continent to permit all involved countries and international partners to hold each other accountable for results on the ground.

The Resource Envelope for Phase II

It is estimated that US$1.125 billion will be required from IDA-15, the most recent replenishment of IDA's resources, for the three years of Phase II (June 2008 through July 2011). It is expected that these resources will come directly from IDA's country envelopes and, in the case of the regional program for Sub-Saharan Africa, two-thirds will come from the regional budget as matching funds for IDA's country contributions. The front-loaded expenditures in Phase II will be crucial in controlling the disease in Africa. Therefore, it is anticipated that the Africa Region will make available significant amounts of resources from its IDA-15 envelope.

Financial and Operational Implications

Phase II will continue to stress the importance of monitoring outcomes and, therefore, will aim to strengthen M&E capacity at both the country and regional levels. The MIRT will play a direct role in developing and managing the regional and cross-border pillar of Phase II and in coordinating the provision of increased resources to Nigeria and the Democratic Republic of Congo. The Africa Region will also strengthen its quality assurance program in line with the increased accountability required in Phase II.

Conclusion

The World Bank's clients and the international community have come to expect the Bank to be committed to fighting malaria in Africa at the high-

est institutional level and believe that its full engagement is critical to achieving success. Demand from clients for IDA funding for malaria control activities remains high, the Bank's leadership role and collaboration with its partners have increased, and the critics of the Bank's involvement in the malaria field have fallen silent. If at this juncture the Bank were to choose to withdraw from the effort to roll back malaria in Africa, its clients, partners, and critics would question both its credibility and its leadership in its commitment not only to continuing malaria control efforts but also to achieving the MDGs.

Furthermore, malaria control is so entwined with the goals, strategies, and policies of the World Bank in the Africa Region that withdrawing would undermine its Africa Action Plan (AAP); its Health, Nutrition, and Population Strategy; its Regional Integration Strategy; its impact within the International Health Partnership (IHP); and its evolving strategy for mitigating the impact of climate change in Africa.

The international community is gearing up for a major assault on one of the greatest public health challenges in the world—malaria in Africa. African nations and their development partners have realized that *not* choosing a course of eliminating malaria as a public health threat would devour resources for decades if not centuries to come. These African nations have asked the World Bank to make available to them over the next three years a substantial share of the resources required to reach the targets that they and the international community have set.

Quickly scaling up for impact will allow many of these countries to reach the Abuja targets, and a sustained commitment will help them reach Millennium Development Goals 4, 5, and 6 (reduce child mortality by two-thirds, reduce the maternal mortality ratio by three-quarters, and combat HIV/AIDS, malaria, and other diseases). At the moment, the estimated funding gap between available funds and the amount needed to achieve these targets is approximately US$2 billion per year. A contribution of US$1.2 billion from IDA-15 will shrink that gap significantly. Other donors are expected to increase their support as well. Because the World Bank is well positioned to help save 1 million lives per year and to stimulate economic development on the African continent, it has been called upon to do its part in reaching the ambitious goals for malaria control. Phase II of the Booster Program for Malaria Control in Africa is the Bank's affirmative and emphatic response to that call.

CHAPTER 1

The Burden of Malaria in Africa

Malaria is a treatable and preventable disease, yet it kills 3,000 children around the world every day. Malaria, a potentially fatal disease caused by a parasite that is transmitted to humans through the bite of an infected *Anopheles* mosquito, places a huge burden on Africa, where 90 percent of global malaria deaths occur (WHO/UNICEF 2005). The deadliest form of the parasite, *Plasmodium falciparum*, has recently been estimated to be responsible for as many as 365 million clinical malaria cases and more than 1 million children's deaths in Africa in a single year (Snow et al. 2005).

Quantifying the malaria burden in Africa is challenging because few well-documented estimates of malaria's direct and indirect burdens exist (Rowe et al. 2006). In Africa, routinely reported facility-based data fail to record most of the illness and deaths from malaria. As noted in the "Africa Malaria Report" 2003 (WHO/UNICEF 2003), demographic and health surveys (DHSs), and other sources, (Breman 2001) indicate that less than 40 percent of malaria morbidity and mortality happens in formal health facilities. Because many facilities lack the laboratory capacity to make a confirmatory diagnosis, facility-based data often undercount the actual numbers of cases. The "Africa Malaria Report" noted that the data that health facilities routinely send to their Ministries of Health vary from country to country in terms of completeness and timeliness, and typically no data are sent from nongovernment facilities.

An additional challenge for estimating the extent of the populations at risk of malaria in Africa is that the climatic conditions that favor transmission vary in frequency and extent both between and within countries. For instance, whereas malaria transmission occurs nearly year-round in most of the Democratic Republic of Congo, transmission does not occur in much of Ethiopia and is highly seasonal where it does occur.

Despite these measurement challenges, it is clear that all people living in malaria-endemic areas are susceptible to infection and that children and non-immune adults are particularly susceptible to both getting ill and dying from the disease. Pregnant women and their unborn children are particularly vulnerable as well. Malaria is a major cause of perinatal mortality, low birthweight, and anemia, and although its effects on miscarriage and stillbirth are unknown, it has been estimated that adequate coverage of malaria-in-pregnancy control measures, such as the use of insecticide-treated bed nets and intermittent preventive treatment in pregnancy may prevent 3 percent to 8 percent of infant deaths (Guyatt and Snow 2001; Steketee et al. 2001).

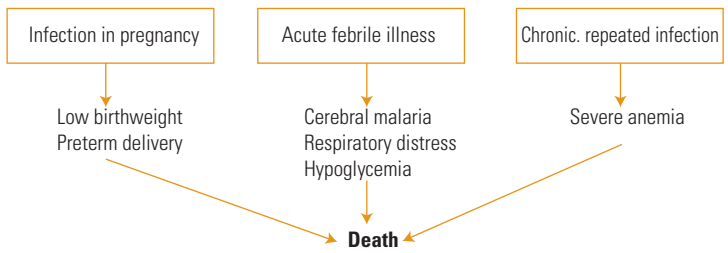
Child deaths that are both directly and indirectly attributable to malaria in areas with high-intensity malaria transmission have been estimated to account for as many as 34 percent of all deaths among children under the age of five (Rowe and Steketee 2007).

Malaria infection contributes to illness and death in several ways, as depicted in figure 1.1. However, the death toll is only one of the many negative effects of malaria. The temporary ill effects of repeated episodes of infection, such as reduced appetite, restricted play, limited social interaction, and reduced educational opportunities, exact a toll as well. Furthermore, an estimated 2 percent of those children who recover from malaria infections that affect the brain may suffer permanent learning impairment and brain damage (Murphy and Breman 2001).

Country-Specific Estimates of Child Deaths from Malaria in Africa

Using the best data available and rigorous statistical methods, a recent study (Rowe et al. 2006) found that more than 803,000 child deaths resulted from

Figure 1.1 Three Ways in Which Malaria Kills Children



Source: WHO/UNICEF 2003.

malaria (the precise estimate being between 705,820 and 901,418) in 2000 in the whole of Africa, including those areas with no transmission. This represented 18 percent (the precise estimate being between 15.8 and 20.2 percent) of all deaths among children under five years of age from all causes. In Sub-Saharan Africa, the same study found that Nigeria and the Democratic Republic of Congo contributed the largest absolute number of children dying from malaria and that Ghana, Benin, Nigeria, and Senegal had some of the highest proportions of all child deaths attributable to malaria (approximately 42.4, 28.0, 27.9, and 27.7 percent, respectively).

Malaria Illness and Deaths Exacerbated by Mobile Populations and Cross-Border Movement

When nonimmune individuals, whether children or adults, move to areas with high malaria transmission, the resulting effects in terms of both illness and death rates can be devastating. There are many different reasons why people move to areas that put them at increased risk of contracting malaria, such as pressure on scarce resources, more work opportunities elsewhere, natural disasters such as droughts or floods, or conflict. In addition, mobile populations may inadvertently aggravate malaria transmission in their new settings: (i) if they are unknowingly infected and thus introduce transmission in previously malaria-free zones; (ii) by transporting more efficient vectors to malaria-free areas; (iii) by altering the environment (for example, through deforestation and irrigation) in ways that create more favorable habitats for Anopheles mosquitoes; and (iv) by increasing the spread of drug resistance (Martens and Hall 2000).

The Burden of Malaria on Development in Africa

Given its dramatic human cost and economic impact, malaria is a high priority on the Bank's development agenda in Africa and an important topic in the Bank's discussions with country governments about poverty reduction and debt relief in Africa.

Malaria's impact on public health is compounded by its high economic costs, both direct (such as expenditure on prevention and treatment by households and by health services) and indirect (such as productive labor

time lost per episode for an adult who gets ill or has to care for a sick child) (Chima, Goodman, and Mills 2003). In Africa alone, the total yearly economic burden of malaria has been estimated to be about US$12 billion (Gallup and Sachs 2001). Malaria also significantly impedes progress toward many of the targets set out in the Millennium Development Goals (MDGs).

Malaria—Both a Disease of Poverty and a Cause of Poverty

Children and women living in rural areas are at the greatest risk of death or severe debility from malaria, and the disease drains the resources of families and keeps them in poverty. Malaria can affect what decisions people make about their own or their children's schooling and how they view their ability to learn or to save. This means that the disease affects households' long-term income streams in a far more significant way than is indicated by any simple case-by-case analysis of the costs borne by households at a single point in time (Malaney, Spielman, and Sachs 2004). Poverty may prevent some households from spending the money needed to treat malaria infections, thus risking complications and death, or households making that expenditure may be unable to cope with other contingencies over the long term (Chuma, Thiede, and Molyneux 2006).

Malaria also *keeps* countries in poverty. Annual economic growth has historically been lower in countries with high malaria transmission than in countries without malaria. Economists have estimated that malaria is responsible for an "economic growth penalty" of up to 1.3 percent per year in malaria-endemic African countries (Sachs and Malaney 2002). Although economic estimates of the magnitude of the impact of malaria vary, most suggest that the disease must be considered an important contributor to the problem of poor economic growth and low income.

Economic Burden of Malaria—Who Pays?

Studies of health care expenditures have consistently shown that most of the money spent on malaria prevention and treatment comes out of the pockets and pocketbooks of individuals and households.[1] Governments, international donors, and nongovernmental organizations (NGOs) also pay for malaria. In some countries with a heavy malaria burden, the disease may account for as much as 40 percent of health expenditure in the public sector (WHO 2007).

Many of malaria's economic effects are insidious. The simple presence of malaria in a community or country also limits individual and national prosperity because of its influence on the social and economic decisions made by people and organizations, such as the following:

- Discourages internal and foreign investment and tourism
- Affects land use patterns and crop selection, resulting in suboptimal agricultural production and contributing to the cycle of poverty and malnutrition
- Reduces labor productivity through lost work days and diminished on-the-job performance
- Negatively affects learning and scholastic achievement through frequent absenteeism and, in children who suffer from severe or frequent infections and associated anemia and iron depletion, causes cognitive impairment and in some cases permanent neurological damage

Local and international businesses operating in malarious areas are also learning that malaria control activities not only reduce levels of absenteeism and lost productivity but also improve relations among workers, communities, and the government.

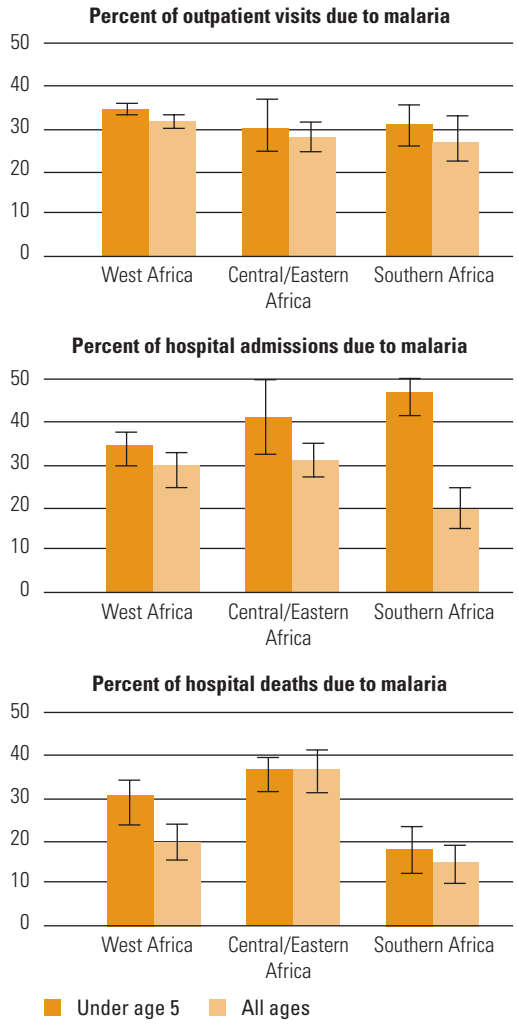
Beyond their public health benefits, many malaria control interventions also have public goods characteristics or externalities, including the mass protective effect of insecticide-treated nets (ITNs) and environmental control measures such as indoor residual spraying (IRS), improved treatment and reduced drug resistance as a result of the use of artemisinin-based combination therapies (ACTs), and reduced transmission from timely, effective use of ACTs (Hanson 2004).

The Malaria Burden as a Drain on Health Systems

In Africa, the overwhelming number of malaria cases (estimated to be more than 365 million per year) presents a crisis for health systems in African countries (see figure 1.2). Even the "best-performing" systems will not be able to continue to cope if the huge number of malaria cases is not drastically reduced. A high proportion of public health expenditure is now devoted to treating the enormous volume of clinical malaria cases. Investing in initiatives to reduce these cases would be a smart move, as this would not

only free up health resources but also enable health workers to spend more time on other health problems. In Benin and Zambia, up to 40 percent of all outpatient visits are due to malaria (WHO/UNICEF 2003), and if this could be slashed to 5 percent, a significant amount of money would be saved, health care workers would have more time to spend on treating and controlling other diseases, and worker productivity would be dramatically increased.

Figure 1.2 The Burden That Malaria Puts on Health Facilities



Source: WHO Regional Office for Africa (AFRO) routine Health Information System data.
Note: Averages are 1998–2001. Error bars give the standard errors.

Reducing the volume of malaria cases is indeed possible when critical coverage thresholds are met (for example, when 70 percent of households use ITNs or are consistent about indoor residual spraying), but to achieve this reduction, it is critical to scale up vector control rapidly. History has shown that taking an untargeted, incremental approach to strengthening health systems in isolation, as the Bank did in the 1990s, will fail to yield solid improvements in health outcomes. Malaria-endemic countries urgently need significant amounts of financing and operational support to (i) increase vector control to levels that will reduce both transmission and the number of cases, and (ii) strengthen the capacity of health systems to provide key services, particularly at decentralized levels.

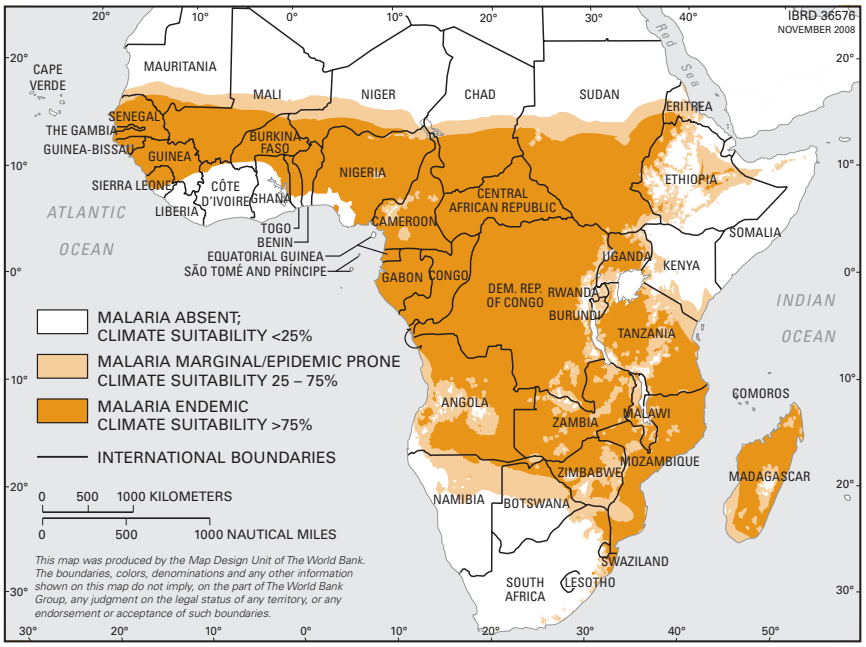
Prospects and Challenges for Malaria Control in Africa

Since the 1950s, significant progress has been made in bringing malaria transmission under control in North America and Europe, in large part because of lifestyle improvements such as the introduction of screens on windows, doors, and porches (Shiff 2002). Progress has also been made in Africa's southern and most marginal zones of transmission (see figure 1.3). Nevertheless, the geographical areas where malaria is endemic in tropical Africa have remained largely unchanged for at least the past 100 years and most probably for the past several thousand years (Carter and Mendis 2002).

Numerous factors influence the dynamics of malaria transmission and have contributed to the recalcitrance of malaria transmission control in Africa to date. These include climate-related factors (such as rainfall, average temperature, and humidity), mosquito-related factors, human-related factors such as poverty and unscreened housing, and a lack of access to quality health services for populations at risk (see table 1.1). However, it is important to emphasize that Africa is far from homogeneous with regard to malaria risk, and previous attempts to treat it as such hindered the effort to bring the disease under control.

Despite these challenges, effective tools for preventing and treating malaria do exist. These include both curative methods (such as antimalarial drugs like ACTs) and preventive methods (those that reduce the intensity of malaria transmission by reducing the density of the vectors or the lifespan of the adult mosquito, including ITNs and IRS) (Smith et al. 2007). In a multicountry analysis of the effects of a minimum package of key child

Figure 1.3 The Distribution of Endemic Malaria in Africa



Source: MARA/ARMA 2001.

Note: This map is based on data provided by the MARA/ARMA collaboration (http://www.rrara/org.za). July 2001, Medical Research Council, PO Box 17120, Congella, 4013, Durban, South Africa. CORE FUNDERS of MARA/ARMA: International Development Research Centre, Canada (IDRC); The Wellcome Trust UK; South African Medical Research Council (MRC); Swiss Tropical Institute, Multilateral Initiative on Malaria (MM) / Special Programme for Research & Training in Tropical Diseases (TDR), Roll Back Malaria (RBM). Malaria distributor model: Craig, M. H. et al. 1999. *Parasitology Today* 15: 105–111. Topographical data: African Data Sampler, WRI, http://www.lgc/org/wri/sdis/maps/ads/ads_idx.htm.

health interventions, UNICEF found that using ITNs was the most effective way to reduce deaths in children under the age of five (UNICEF 2005). Children's ITN use alone contributes more than 50 percent on the impact of mortality reduction in children under five (see figure 1.4).

Specific monitoring is needed to ensure the continued effectiveness of these tools over time, as both mosquito vectors and malaria parasites are capable of developing resistance to insecticides and drugs, respectively. The potential for mosquitoes to develop resistance to the insecticides used in vector control programs is an important operational concern, and therefore any recommendations for insecticide use must be evidence-based and must take into account epidemiological, entomological, operational, and economic factors (Sadasivaiah, Tozan, and Breman 2007). The effects of insecticide use must be monitored and detected in a timely fashion to inform pol-

Table 1.1 Characteristics That Make Controlling Malaria in Sub-Saharan Africa Particularly Challenging

FACTORS	IN SUB-SAHARAN AFRICA	ELSEWHERE
The climate	Warm and humid year round in many places, which increases mosquito longevity, breeding, and the speed with which the parasite passes through the stages of its life cycle, all of which favor transmission.	Long periods of the year when the vectors and parasite are not abundant (in other words, when malaria transmission ceases or is reduced to very low levels).
The parasite	Predominant species, *Plasmodium falciparum,* the deadliest form (requires high average temperatures).	Varied species composition, with some areas having predominantly *P. vivax,* which is rarely fatal.
The vector (mosquito species and its behavior)	Home to the most efficient malaria vectors in the world (*Anopheles funestus,* and especially the *A. gambiae* complex), which prefer to bite humans, survive for a long time, and in the case of *A. gambiae,* breed in puddles as small as hoofprints.	*Anopheles* species, which in many places are not very effective in transmitting malaria.
Humans (their health status and behavior)	General poverty, housing structures that mosquitoes can easily enter, traditional beliefs about the disease that cause sufferers to delay seeking appropriate treatment, and migrations due to poverty and/or conflict, all of which enhance the exposure of vulnerable populations.	Faster economic development in many areas and wider access to better housing structures.
Health services	Poor quality or inaccessible health care services (leading to widespread self-treatment with incorrect medicines or dosages).	Higher quality, more accessible health care services in many areas.

Source: World Bank Booster Program staff 2006.

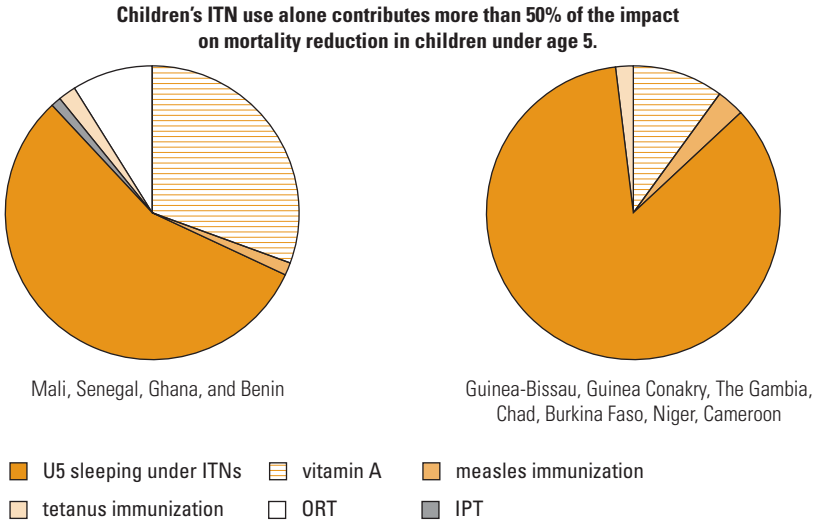
icy and program decisions and to ensure that vector control continues to be effective.

Artemisinin-based combination therapies (ACTs) are the current recommended medicines for effective management of uncomplicated malaria. When correctly used, ACTs also counter the development and spread of *Plasmodium falciparum* resistance (Breman, Alilio, and Mills 2004).

Reduced Burden—Possible and Imperative

It has been estimated that, if malaria control interventions are scaled up to cover at least 70 percent of the population in areas with high-intensity malaria transmission, it may be possible to reduce malaria mortality by as

Figure 1.4 The Proportion of Lives Saved by Key Interventions



Source: UNICEF 2005.

IPT: intermittent preventive treatment; ITN: insecticide-treated net; ORT: oral rehydration therapy; U5: children under the age of five.

much as 50 percent and all-cause under-five mortality by about 17 percent (Rowe and Steketee 2007). Though some progress has been made to date in increasing access to and coverage of these proven interventions, a report released in 2007 by UNICEF and the Roll Back Malaria Partnership (RBM) found that these key interventions in Africa are not reaching the populations that need them the most, in other words, the poorest of the poor (UNICEF and RBM 2007). Nor are they scaled up to the necessary extent to reduce transmission by the required amount (Hawley et al. 2003).

It has proved to be extremely difficult to switch from conventional antimalarial medicines to ACTs as a first-line treatment in response to increased chloroquine resistance in Africa. This has been due in part to the fact that ACTs are significantly more expensive than other treatments, which is the main reason why few malaria patients have access to ACTs today, particularly in high-burden countries in Africa (Bosman and Mendis 2007). What is needed is not only to strengthen the ability of public health facilities to provide and correctly dispense effective treatment, but also to recruit and train community-based providers, including the numerous existing medicine sellers who operate outside the public health sector in Africa. With some training on the effects and dosing of these drugs, and with careful

supervision, these providers could stock and dispense ACTs to their many customers, thus vastly extending access to timely, effective treatment (Goodman et al. 2007).

No single malaria control measure is sufficient to reduce malaria in any given setting. However, when an entire package of locally appropriate interventions reaches a sufficient level of coverage, then it should be possible to reduce the burden of malaria and achieve the malaria-related Millennium Development Goals (Smith et al. 2007). It was on the basis of the complementarity of effective prevention and treatment of malaria that the international development community committed itself in 2000 to an RBM Partnership.

Note

1. People spend money on doctors' fees, antimalarial drugs, transport to health facilities, and support for the patient and sometimes an accompanying family member during hospital stays. Increasingly people also spend money on insecticide-treated nets and other personal protection measures (such as mosquito coils).

CHAPTER 2

Booster Program for Malaria Control in Africa: Phase I

In 2005, the World Bank recognized that its previous approach to malaria control in Africa was not achieving its anticipated outcomes (World Bank 2005a). Having allocated less than US$50 million for malaria control in the whole of Sub-Saharan Africa between 2000 and 2005, the Bank had been unable to assist countries in the region to reduce morbidity and mortality from the disease, especially for children under the age of five.

In 2002, an independent evaluation of the Roll Back Malaria (RBM) Partnership noted that, "the Bank's presumed comparative advantage in development policies, sectorwide planning, and budgeting was inaccessible to the broader RBM Partnership" owing to the complexity of its processes and to the fact that many of its partners were not familiar with those processes (Malaria Consortium 2002). The partners' impression of the Bank was that "it talks the talk, but in practice the Bank does not deliver on the ground."

In its Global Strategy and Booster Program report (World Bank 2005a), the Bank itself recognized that its incremental approach to malaria control, which had focused exclusively on strengthening health systems, had failed. "Health system constraints alone justify neither inaction nor a continuation of the inadequate level of the Bank's commitment to malaria control. There is evidence that, in the area of disease control and public health, major interventions have worked on a large scale even in places with grinding poverty and weak health systems" (Levine and the What Works Working Group 2004, 26).

The Bank bore these lessons in mind when developing and implementing the Booster Program for Malaria Control in Africa.

The Booster Program for Malaria Control in Africa

In 2005, the World Bank began assessing its malaria control efforts since the 2000 Abuja Summit on Roll Back Malaria during which participants pledged to cut malaria mortality in Africa in half by 2010. A World Bank Vice Presidential Steering Committee (consisting of five World Bank vice presidents) held a series of in-depth consultative discussions with client governments, development partners in the RBM Partnership, and the World Bank's executive directors. These consultations revealed that the Bank's malaria control activities had fallen far short of expectations and of the promises that the Bank had made at the Abuja Summit.

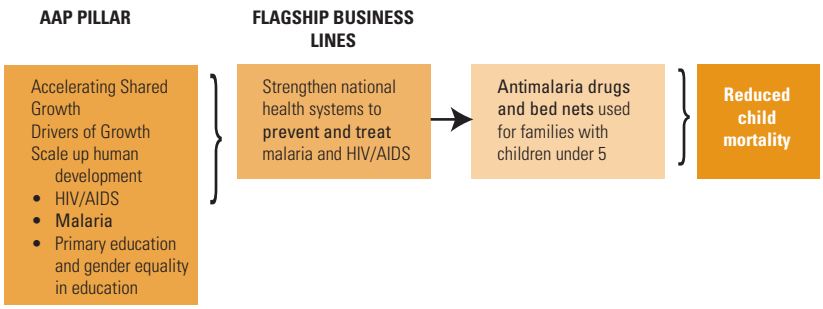
In response, the Bank released a revised malaria control framework known as the Global Strategy and Booster Program in April 2005. The strategy outlined a new way forward for the institution in the area of malaria control, including the need for the Bank to substantially increase financing for malaria control from the International Development Association (IDA). The report recognized malaria as a fundamental obstacle to human and economic development, especially in Africa, and noted that many of the Millennium Development Goals (MDGs) could not be achieved in the absence of effective malaria control.

Soon after the publication of the report, the World Bank's Africa Region, which is responsible for financing the Bank's poverty reduction efforts in Sub-Saharan Africa, launched the Booster Program for Malaria Control in Africa in September 2005 at a donors' conference in Paris. Given the Bank's strong commitment to the Booster Program, Paul Wolfowitz, the World Bank Group president, stated at the launch: "It is a sad fact that malaria kills an African child every 30 seconds despite the existence of methods to both prevent and cure the disease. We must act now before the malaria parasite adapts and grows resistant to the insecticides and drugs we have available to us today." He went on to say, "Additional donors and partners have joined this effort, including other development banks, donor countries, as well as the private sector, academia, nongovernmental organizations, and foundations. Despite very good intentions, malaria is as much of a threat today in Africa, if not worse. Obviously, we must do better" (World Bank 2005b).

As part of this recommitment, the Bank established the Malaria Implementation Resource Team (MIRT) in the Africa Region to coordinate and move forward the Bank's activities under the Booster Program. The team consists of a coordinator and four technical specialists. The MIRT also

Box 2.1 The Africa Action Plan

The World Bank's Africa Action Plan (AAP) is a results-oriented framework for the policy and public actions taken by African countries to achieve the MDGs, and it guides the financial support provided by the Bank in Phase II of the Booster Program. Because malaria is a leading cause of death among African children under five years of age, the Bank has made malaria control a top priority in the Africa Action Plan. Reducing child mortality cannot be achieved without a significant effort to control malaria.



Source: World Bank 2005c.

draws on expertise from various sectors and departments within the World Bank and works with country task teams to prepare and oversee the implementation of Booster Program projects. At the country level, World Bank task team leaders facilitate dialogue with governments and help them to develop and implement Booster Program projects. The MIRT has five key mandates:

- To provide guidance to the Bank on appropriate technical and financing strategies for eliminating malaria as a significant public health burden in the Africa Region
- To support task teams and clients to develop and implement programs at the subregional and country levels
- To ensure the quality of the program and the documentation of results
- To develop both internal (with other sectors) and external partnerships
- To generate, manage, and share knowledge about malaria control

As a founding member of the RBM Partnership, the Bank seeks through the Booster Program for Malaria Control in Africa (see box 2.2) to con-

Box 2.2 The Booster Program's Approach to Malaria Control

From the beginning, the Booster Program has taken a unique approach in its support for malaria control by funding existing methods that have already been proved effective, and it continues to be driven by the following key features:

- *Country-led.* The program seeks to contribute to—rather than orchestrate—the plans developed by the affected countries themselves.
- *A two-pronged approach that emphasizes the rapid scaling up of interventions and strengthening of health systems.* The Booster Program aims to strike the right balance between overcoming health system constraints—such as drug procurement and distribution problems, inadequate planning, and poor monitoring and evaluation—and implementing disease-specific interventions.
- *Embedded in strong partnerships.* The Booster Program is firmly embedded in the Roll Back Malaria Partnership. The partnership approach is essential because in every country plagued by malaria, no single donor contributes enough to bring malaria under control. Taken together, the activities of the various donors translate funding into results more effectively than any one donor's activities alone. The Booster Program coordinates all donors in supporting national malaria control plans and programs.
- *Flexible, cross-border, and multisector funding.* The Booster Program provides flexible funding that enables proven interventions to be scaled up quickly and makes it easier to implement malaria control activities across sectors and country borders in regions that have some of the world's highest malaria rates.
- *A focus on monitoring and evaluation (M&E).* Because insufficient data and weak M&E systems have made it difficult to assess progress and maintain accountability in the fight against malaria, support for M&E is an essential element of the program.

tribute to the collective efforts of countries and its development partners to reach the coverage targets established in Abuja.[1] Through the Booster Program, the Bank's role, in collaboration with other institutions and individuals, is to help countries fill resource gaps and identify and overcome bottlenecks in their health systems to achieve the targets set in their national malaria control plans.

The Booster Program has a 10-year time frame, which began with the three-year Phase I (July 1, 2005, to June 30, 2008), in which 18 to 20 African countries were expected to spend roughly US$500 million of their IDA allocations on the fight against malaria. Phase I supported countries in implementing a combination of proven, cost-effective interventions, including long-lasting insecticidal nets (LLINs) and indoor residual spraying (IRS) for prevention and artemisinin-based combination therapies (ACTs) for treatment. At the same time, in concert with the Bank's partners, the Booster Program supported countries' efforts to design programs that will strengthen their national health systems by, for example, increasing their procurement and supply chain capacity and improving their monitoring and evaluation (M&E) and their health planning.

Initial Results

Most projects under the Booster Program have been effective for less than two years, which is too short a time to fully implement a national program and document impact. Despite this, during Phase I, the Booster Program has made significant progress in many areas.

Allocating Money to the Fight Against Malaria

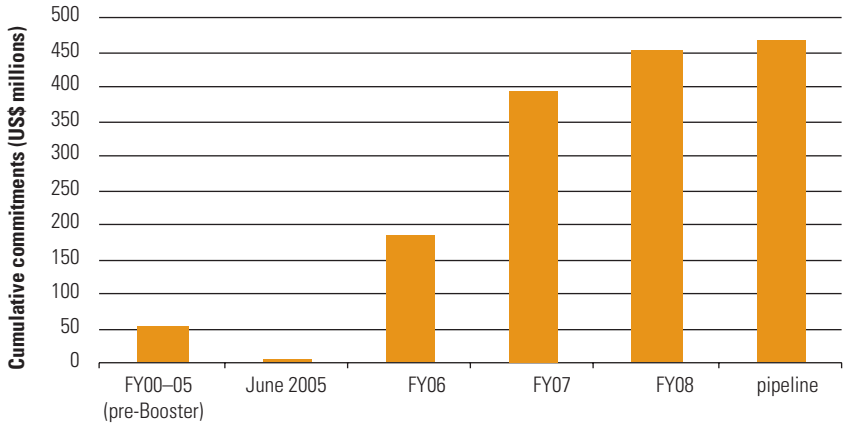
Recognizing the need to respond to country demands and build the Bank's credibility as a lead malaria control partner, the Booster Program moved quickly to provide substantially more World Bank resources for malaria control in Africa. IDA monies are demand driven and generally allocated country by country, and it was unclear at the start of the Booster Program whether or not country demand would meet the expectations and needs outlined in the Global Strategy and Booster Program report (World Bank 2005a). However, it soon became clear that demand from governments for IDA resources to control malaria was high. Using its unique dual relationship with Ministries of Health and Ministries of Finance, the World Bank worked with each Booster Program country to make the case—in both human and economic terms—for governments to increase their own investment in long-term malaria control. After two years, World Bank financing for malaria control in Africa had increased ninefold (from less than US$50 million in the previous five-year period to over US$470 million; see figure 2.1).

Phase I operated in 19 countries and committed US$455.2 million for malaria control, with an additional US$15 million in the pipeline, together totaling US$470.2 million (see table 2.1). Approved projects cover a vast area inhabited by a total of 258 million people.

Today, in each Booster Program country, the Bank is not only providing resources for the fight against malaria but also working with countries, by monitoring the human and financial resources that countries are allocating to their malaria control efforts, to ensure that this funding is not simply substituting for other resources.

The case of Zambia is an example of the flexibility of the funding that the Bank provides. The Bank was able to step in and front-load the IDA funding when the Global Fund's financing for LLINs was delayed. The Booster Program has also adhered to the principle of flexibility in terms of the design of its projects. Rather than providing countries and task teams with a template, the Booster Program gives each country the flexibility to design

Figure 2.1 Ninefold Increase in Program Lending for Malaria Control in Africa since the Start of the Booster Program, FY 2000–08



Source: World Bank Booster Program staff 2008.

its malaria control support (in agreement with its Bank counterparts) tailored to the country's specific needs.

Monitoring Results Against Investment

Every Booster Program project has a comprehensive M&E component tailored to the national context, and the program has particularly tried to meet local (district-level) needs for information to manage projects more effectively. At the global level, the World Bank has developed a Malaria Scorecard or a Results Monitoring Matrix (see appendix 1) for tracking dollar investments and the coverage of key interventions, such as the use of ITNs, access to antimalaria treatment for children, intermittent preventive treatment for pregnant women, and IRS. Box 2.3 provides more details on the Booster Program's work in monitoring and evaluation.

Spending the Money Effectively

The Booster Program funds are being spent on cost-effective and technically sound malaria control interventions. The World Health Organization's (WHO) Global Malaria Program has certified that interventions and activities supported by the Booster Program are in line with WHO's policies and technical standards. All of the Booster Program projects are now in the

Table 2.1 Bank Lending for Malaria Control in Africa, Active and Pipeline Projects, FY 2006–08 (US$ millions)

AFRVP UNIT	SECTOR UNIT	BOARD-APPROVED PROJECTS	TOTAL PROJECT AMOUNT	TOTAL MBP AMOUNT BY PROJECT	TOTAL MBP AMOUNT BY SECTOR UNIT	PROJECTS BY SECTOR UNIT
AFTHD	AFTH1	**Tanzania:** Health Sector Development II Scale-up (additional financing)	60.0	25.0	64.0	5
		Kenya: Total War Against HIV and AIDS (SIL)	80.0	4.0		
		Eritrea: HIV/AIDS/STI, TB, Malaria & Reproductive Health Project (SIL)	24.0	2.0		
		Zambia: Malaria Booster Project (SIL)	20.0	20.0		
		(RTF)	8.0	8.0		
		Malawi: Health Sector Support Project (additional financing)	5.0	5.0		
	AFTH2	**Niger:** Institutional Strengthening & Health Sector Support Project (SIM)	35.0	10.0	68.3	5
		Senegal: Nutrition Enhancement Project II (APL)	15.0	5.3		
		Benin: Malaria Control Booster Project (SIL)	31.0	31.0		
		Burkina Faso: Health Sector & Multisectoral AIDS Project (SIL)	47.7	12.0		
		Ghana: Nutrition and Malaria Control for Child Survival (SIL)	25.0	10.0		
	AFTH3	**Nigeria:** Malaria Control Booster Project (SIL)	180.0	180.0	265.9	6
		Ethiopia: Protection of Basic Services (SIL)	215.0	11.1		
		(TF)	322.2	10.4		
		(Additional financing)	215.0	12.2		
		Sudan (Northern): Decentralized Health System Development Project (MDTF)	6.0	1.2		
		Sudan (Southern): Southern Sudan Umbrella Project for Health System Development (MDTF)	20.0	16.5		
		Dem. Rep. of Congo 1: Health Sector Rehabilitation Support Project (SIL)	150.0	30.0		
		Rep. of Congo: Health Sector Development Project (SIL)	40.0	4.5		
AFTSN	AFTU2	**Dem. Rep. of Congo 2:** Emergency Urban & Social Rehabilitation Project (ERL)	180.0	13.0	13.0	1
	AFTAR	**Kenya:** Western Kenya CDD and Flood Mitigation Project (SIL)	86.0	2.0	2.0	1
	AFTWR	**Subregional:** Senegal River Basin Water Resource Development Project (APL)	110.0	42.0	42.0	1
		Subtotal: Board-approved (as of June 15, 2008)	**1,874.9**	**455.5**	**455.2**	**19**
		PIPELINE PROJECTS				
AFTHD	AFTH1	**Mozambique:** Health Service Delivery Project (SIL)	TBD	8.0	15.0	1
		(RFTF)	7.0	7.0		
		Total: Approved and Pipeline (as of June 15, 2008)	**1,881.9**	**470.2**	**470.2**	**20**

Source: World Bank Booster Program staff 2008.

Note: Eritrea is included among the Malaria Booster Projects although it received Board approval one month prior to the start of FY06 (i.e., June 2005).
AFTHD, Africa Region Human Development; AFTSN, Africa Region Environmentally and Socially Sustainable Development; AFTU, Africa Urban/Water; AFTWR, Africa Water Resource Management; APL, adaptable program loans; CDD, Community Driven Development; ERL, emergency recovery loan; MDTF, multi-donor trust fund; RFTF, Russian Federation Trust Fund; TF, Trust Fund.

Box 2.3 Focus on Results

Although Booster Program projects vary in their design, all of them are measured against the indicators and targets agreed to by the Roll Back Malaria Partnership's Monitoring and Evaluation Reference Group (MERG). Specific attention is paid to gathering data to inform decision making by program managers and national and district administrators as well as to track progress in implementation and outcomes. At the global level, the World Bank has developed a Malaria Scorecard for tracking dollar investments in and coverage of key interventions. The Bank is currently discussing this scorecard with its partners, many of whom are interested in drawing up a joint accountability framework to which all partners in the malaria fight will be held accountable. The World Bank is also working with its partners to turn the scorecard into a joint tool by developing a data warehouse that all partners and countries can use to track progress and results and to use in program planning.

In addition, the Booster Program has secured a partnership with the ExxonMobil Foundation to enhance the program's monitoring and evaluation efforts. The partnership will help gather up-to-date information on metrics—to be reported in the scorecard—such as the number of children sleeping under long-lasting insecticidal nets or the number of households that have been sprayed.

This next step—building on the scorecard to create a dynamic, accessible joint malaria database—will enable donors and malaria-endemic countries to track how their resources are being spent and to assess the value of the investments that are being made. Ultimately, it will be a powerful tool for all partners in the fight against malaria. The scorecard and the joint malaria database are reflections of the Booster Program's commitment to measuring results in the effort to achieve progress that is sustainable.

implementation phase, with the exception of the recently approved Health Sector Support Development Project for the Republic of Congo (May 2008). Progress varies considerably across the Booster Program portfolio, with some countries taking longer than others to start implementing their Booster Program activities. In some of the countries that started slowly, implementation has only just begun. For example, in October 2007, Benin began to implement an integrated campaign to distribute 1.7 million free LLINs across the country, of which 1.4 million were financed by IDA resources, along with vitamin A distribution and deworming. Also, Senegal has recently begun to provide free LLINs through nongovernmental organizations (NGOs) as part of a nutritional improvement program. In addition, Nigeria has just successfully completed one of its largest procurements of LLINs, while the Democratic Republic of Congo has recently procured a total of 5 million LLINs for distribution. In the Senegal River basin, community implementation agents have just been engaged following a rigorous selection process in all four of the countries, and the first major commodity procurements are now under way.

The Booster Program has also financed two workshops on the issues of procurement and the supply chain in anglophone and francophone Africa to

address this critical bottleneck at the country level. Both workshops were extremely well attended by both the Bank's task team leaders and their country counterparts, who agreed that this type of training was badly needed.

Harmonizing and Coordinating Efforts

In September 2006, the Booster Program organized a conference called "Striking Back at Malaria through Accelerated Country Action in Sub-Saharan Africa" in Dakar, Senegal (see box 2.4). At this event, senior policy-makers and program managers from 15 African countries joined RBM partners and others in the malaria control community to discuss how to ensure sustainable malaria control and lower the death toll. The event resulted in what is known as the Dakar Appeal, in which the African countries at the conference appealed to the international community to align all of their funding with existing country plans (as opposed to each donor developing separate plans) and to coordinate their malaria control efforts and their M&E activities, thereby reducing the time-consuming burden

Box 2.4 The Dakar Appeal

In September 2006, the World Bank's Africa Region hosted an event in Dakar, Senegal, called "Striking Back at Malaria through Accelerating Country Action in Sub-Saharan Africa." The event brought together international organizations, bilateral agencies, policy makers, and representatives from the private sector, NGOs, and malaria programs throughout Africa to discuss ways to advance the fight against malaria. A forum was created where the people working on the ground—from country program staff to NGOs—challenged all partners and countries to commit to meeting the Abuja targets by 2010. This has become known as the Dakar Appeal.

The following are the key elements of the Dakar Appeal:

- *Monitoring and evaluation.* The need to have one national monitoring system in each country supported and accepted by all donors, as opposed to the current system in which different donors impose different reporting requirements on countries.
- *Procurement.* The need to develop a centralized way to procure crucial malaria control commodities given the many difficulties that countries face in procuring these items.
- *Transparency and accountability.* The need for mutual accountability between donors and countries using a common system for tracking spending and results.
- *Financial gaps.* The need to improve planning to fill financial gaps in those countries that are clearly performing well enough to be able to scale up and maintain programs nationally.
- *Access to affordable and effective treatments.* The need to overcome the difficulties involved in extending coverage of ACTs and to offer guidance on how to prioritize which treatments to provide in the face of constraints.

imposed on countries by various donors to report different kinds and combinations of data.

One result of the Dakar Appeal has been the strengthening of the RBM Harmonization Working Group (HWG).[2] The World Bank and the United Nations Children's Fund (UNICEF) served as the founding co-chairs of this group, which includes members from funding organizations and technical agencies as well as from all of the core constituencies of the RBM. The HWG was initially an ad hoc group convened to help countries develop better malaria funding proposals to submit to the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (Global Fund). Having been successful in this effort, the HWG has become permanent and is now helping countries to assess what they need to control malaria and to develop action plans that specify what actions have to be undertaken to control malaria. It is also helping them to substantially increase their resources. Given how much effort is required to implement the expanded mandate of the HWG, partners have proposed that a Malaria Implementation Support Team (MIST) should take over this role to help countries overcome bottlenecks as quickly as possible.

In addition to its leadership in founding the Harmonization Working Group, the World Bank is playing an important role in the RBM Monitoring and Evaluation Reference Group by helping to coordinate M&E planning and by aligning the plans of major donor partners to reduce the reporting burden on countries. Working with the U.S. President's Malaria Initiative (PMI) and the Global Fund, the Bank is helping each country to develop a single comprehensive M&E system to which all donors will adhere.

The Bank has also been playing a key role in the RBM's technical and financing working groups as well as the RBM Malaria Advocacy Working Group. In addition, the Bank has members on several WHO expert panels.

The World Bank and the two other largest malaria control donors—the Global Fund and the U.S. government (the PMI or U.S. Agency for International Development [USAID] or both)—are now providing financial support to 14 of the 19 countries with Booster Program projects that are either operational or in the pipeline (see table 2.2). This type of coordination proves that donors' working in close partnership is not only efficient but also critical for success, as no single donor can provide all of the resources needed to bring malaria under control.

Table 2.2 Partnerships That Get Results: The Three Largest Malaria Control Donors in Africa

BOOSTER COUNTRY	WORLD BANK	GLOBAL FUND	U.S. GOVERNMENT
Benin			PMI Round 3
Burkina Faso			
Congo, Dem. Rep. of			USAID
Congo, Rep. of			
Eritrea			
Ethiopia			PMI Round 3
Ghana			PMI Round 3
Guinea			USAID
Kenya			PMI Round 3
Malawi			PMI Round 2
Mali			PMI Round 3
Mauritania			
Mozambique			PMI Round 2
Niger			
Nigeria			USAID
Senegal			PMI Round 2
Sudan			USAID
Tanzania			PMI Round 1
Zambia			PMI Round 3

Source: Compiled by World Bank Booster Program staff 2008.

Note: The U.S. President's Malaria Initiative began in 2006 in Round 1 countries, in 2007 in Round 2 countries, and in 2008 in Round 3 countries.

Working with Foundations, Civil Society, and NGOs

The World Bank has worked closely with the Bill & Melinda Gates Foundation in Zambia in preparing the Malaria Control and Evaluation Program in Africa (MACEPA). The Gates Foundation's contribution has totaled US$35 million over nine years, alongside the Booster Program's commitment of US$20 million over four years. Thanks to strong leadership from the Zambian Ministry of Health and, in part, to the collaboration between the Bank, MACEPA, and other partners, the government and donors have initiated an annual joint review of Zambia's malaria programs. The reviews examine what progress has been made against agreed-upon targets and recommend areas for improvement, while suggesting reallocations of financial resources to meet changing needs, where necessary.

The World Bank has continued to work with MACEPA in defining the proposed expansion of the initiative in Africa, and a Bank representative sits on the MACEPA Advisory Board. In addition, the Bank is benefiting from the guidance of the Gates Foundation in defining and planning the implementation of Phase II (2008 to 2015) of the Booster Program. The World Bank believes that NGOs and civil society are crucial partners in the fight against malaria in Africa. In this regard, the World Bank is currently working with its NGO partners from the Child Survival Collaborations and Resources (CORE) Group and from the Johns Hopkins VOICES Project to enhance the roles that they can play in implementation, including organizing community outreach and ensuring grassroots accountability for malaria control resources. From its experiences in the Democratic Republic of Congo and the Senegal River basin, where NGOs have been selected to implement Booster Program activities at the community level, the Bank has learned the value of involving NGOs in projects.

The Bank has also begun developing a partnership with Malaria No More, an NGO dedicated to ending deaths from malaria in Africa, to bring the expertise and the resources of the private sector into the fight against malaria.

Bringing New Partners into the Fight

The World Bank has joined with ExxonMobil to develop a better way to ensure the accountability and monitor the outcomes of malaria control activities in Africa. The effort began with the Bank's development of the Malaria Scorecard, which tracks dollar inputs against concrete results, thus providing high-level decision makers with the information they need about the progress being made across Africa. Through a dedicated trust fund under the Booster Program, ExxonMobil is providing the essential resources to implement the M&E strategy under the Booster Program.

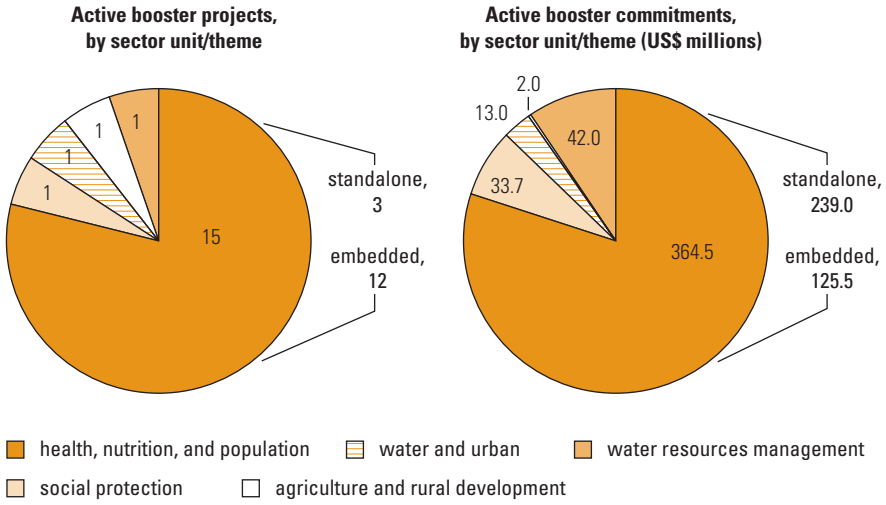
At the Group of Eight meeting in St. Petersburg in July 2006, the Russian Federation recognized the enormous toll that malaria takes in Africa. Since then, the MIRT has brought together the Russian Federation, the World Bank, and WHO to design a package of financing and technical support to enhance the Booster Program in selected countries. The US$20 million initiative funded by the Russian Federation includes (i) a US$15 million trust fund under the World Bank Booster Program for Malaria Control in Africa for Zambia and Mozambique, which will cofinance IDA-supported projects in the two countries; (ii) US$4 million to support training programs

and capacity-building programs for malaria control in Africa, to be administered by the WHO Global Malaria Program; and (iii) US$1 million for a staff development program in collaboration with the World Bank.

Almost all country units in the Bank's Africa Region have at least one malaria Booster project. In terms of sector units, most Booster projects fall under health, nutrition and population (see figure 2.2). The single largest malaria Booster project is the stand-alone[3] project in Nigeria (US$180 million), which alone accounts for 40 percent of the Bank's entire approved portfolio for malaria control in Africa. World Bank malaria control commitments for Nigeria and the Democratic Republic of Congo, which together are estimated to share half of the malaria burden in Africa, represent about half of the program's approved portfolio. However, given their size, these malaria control commitments in Nigeria and the Democratic Republic of Congo are insufficient to support malaria control activities across the whole country. Instead, they target support to specific subnational areas. Phase II will seek to address the more substantial level of IDA resources needed in those two countries to complement other donors' resources and achieve national coverage.

The other commitments in the portfolio are spread among 15 other countries. The Democratic Republic of Congo, Kenya, Senegal, and Sudan

Figure 2.2 Summary of the Bank's Malaria Control Portfolio in Africa



Source: World Bank Booster Program staff 2008.

each have two separate malaria Booster projects. The subregional Senegal River basin project supports malaria control commitments in Guinea, Mali, and Mauritania, and just over two-thirds of the Bank's malaria control commitments in Senegal.

Although World Bank commitments for malaria control have increased since 2005, they are not yet sufficient to meet country-level need and demand. Even when the Booster Program's financing is added to the contributions of governments and other donors, none of the Booster Program countries in the portfolio has mobilized enough resources to control malaria effectively at the national level.

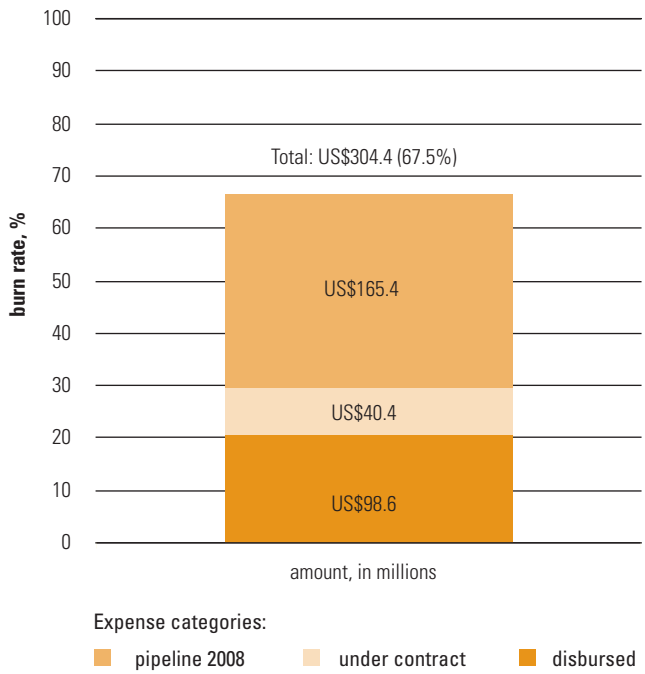
Of the 258 million people living in the areas covered by Phase I, 45 million are children under the age of five years, and 11 million are pregnant women. One example of a successful initiative supported under Phase I is Benin's LLIN campaign, which distributed 1.7 million bed nets (1.4 million of which were purchased with IDA funds) nationwide—the first LLIN distribution to cover Benin's entire under-five population.

As of June 15, 2008, US$139 million (approximately 31 percent) of the Bank's US$450.7 million malaria control commitments that became effective over the FY 2006–08 period have been disbursed or obligated (see figure 2.3). Approval and effectiveness dates vary widely from project to project, as do disbursements. On average, projects that have been effective for at least 12 months have disbursed (or have pipeline engagements for) more than 67 percent of their commitments. When engagements and six-month pipeline contracts are taken into account, another US$165.4 million will have been spent by the end of 2008. Overall, by the end of 2008, it is expected that US$304 million, or 67.5 percent, of effective Phase I Booster Program commitments will have been disbursed or obligated to support malaria control activities in Africa.

Malaria project disbursement rates can vary substantially for several reasons. For example, some projects tend to be characterized by large periodic disbursements to cover large, planned commodity procurements, whereas others (those that mainly consist of technical assistance and strategies to strengthen health systems) have continuous smaller disbursements throughout the life of the project, which in most cases spans four to five years.

Of the total amount that has been disbursed or will be contracted by the end of 2008, US$201.4 million represents purchases of LLINs and US$15.2 million represents purchases of ACTs (see figure 2.4). Purchases

Figure 2.3 Malaria Control Commitments through December 2008



Source: Booster Program Portfolio Review FY06–08.

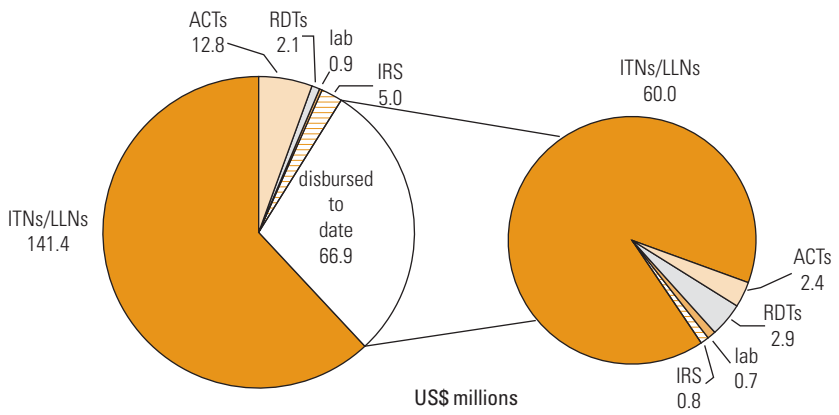
of other commodities did not exceed US$13 million, the largest portion of which was for rapid diagnostic tests (RDTs), which totaled US$5 million. This demonstrates the high priority given to LLIN purchases at this stage of the Booster Program's implementation. This large investment in LLINs may change over the life of the program as the distribution of ACTs is scaled up to cover the whole population of participating countries.

In addition, US$75 million was spent on other disbursements, including M&E activities, supply chain management, mass media and other communications aimed at changing behavior, and capacity building.

Challenges

Although the World Bank is pleased with the progress made so far in the Booster Program and in general in the fight against malaria, many important challenges remain that will need to be addressed in Phase II.

Figure 2.4 Malaria Control Commodity Disbursements through December 2008



Source: World Bank Booster Program staff 2008.

Commodity Procurement Delays

It has not been unusual for countries to have to wait for months to receive LLINs and malaria treatments from suppliers. These delays are sometimes caused by inefficiencies in procurement, manufacturing, and delivery processes and sometimes by bureaucratic delays at the country level or within the World Bank. As a result, LLINs have sometimes arrived after the rains, which is the time when transmission can be at its highest and during which the at-risk population should already be using their nets. Similarly, running out of drugs remains a problem in many Booster Program countries. To address this problem, the Bank is helping countries to build their procurement and supply chain capacity.

Within the World Bank, lessons have been learned from past experience, and the Bank has now streamlined its procurement procedures for crucial malaria control commodities for Africa. Because the Bank has now adopted these procedures for all essential malaria control commodities, its response times to procurement requests from Booster countries have shortened significantly in most cases.

The procurement and supply chain challenge is not unique to Bank-financed programs. Other organizations that are involved in planning and coordinating large-scale distribution efforts confirm that many LLIN procurements require a heroic effort. The Bank's partners have asked the Bank to come up with innovative ways to finance the procurement of

LLINs, which they clearly perceive to be one of the Bank's comparative advantages.

Harmonization to Increase Impact

The coordination and harmonization required among partners is highly labor-intensive, especially since malaria control activities are implemented not just in the health sector alone but in other sectors as well. This situation can add time to the planning and implementation stages but is essential for countries to achieve their targets. The development of national malaria control plans is not a new activity, but what is new is the comprehensive and systematic evaluation of those plans by partners and countries to ensure that, if implemented, they will succeed in controlling malaria. Achieving a consensus among all relevant actors on these plans is a challenge, but there is a clear commitment from all sides to work in this manner.

Insufficient Capacity at the Country Level

Even as scale-up efforts are under way, there is often not enough capacity within Booster Program countries to implement or scale up projects. Therefore, more resources are needed, not just for procuring commodities but also for building capacity. The Booster Program is working with the Bank's partners to build country capacity in areas such as procurement and supply chain management, monitoring and evaluation, and planning and budgeting to ensure the most effective use of available resources.

Insufficient Data

Obtaining the minimal amount of information necessary for monitoring program outcomes and implementation is still a significant challenge in some countries. Routinely reported data are often incomplete or out of date. Satisfying the different reporting requirements of multiple donors can be time-intensive and inefficient. The Booster Program, as part of an RBM Monitoring and Evaluation Reference Group, is working to refine and harmonize existing data collection tools, to develop new ones, and to assist countries in making quality data available to inform program managers at the national and district levels as well as the international malaria control community. The Booster Program is also working closely with the Bank's

partners to strengthen logistics management information systems at the country level to track commodities and improve forecasting of what quantities are needed. The Booster Program is also committed to building local capacity to analyze data to identify successful and problem areas as vital input for decision makers when they consider the tactical and strategic changes that may be needed to improve malaria control results.

Health System Constraints

Health system constraints such as shortages of health workers, particularly in poor rural communities, and limited supply chain capacity in many African countries are an important problem (particularly for the treatment of cases), and once identified, the constraints are not easily rectified. This underscores the urgent need to conquer malaria and, thus, relieve the pressure that malaria puts on the health system to free up resources that can then be used to tackle other major health issues. Given that disease-specific initiatives and solid country health systems are both needed to make a significant impact on the ground, the Booster Program takes a two-pronged approach: it aims to bring malaria under control with key malaria control interventions, most of which are delivered through primary health and antenatal care, that are crucial for interrupting transmission; at the same time it supports more general improvements in health systems. Improvements in health systems include decentralizing budgeting and planning, securing health financing, building capacity throughout the supply chain for procurement and forecasting of commodities, and strengthening M&E. Most of the Booster Program funding is embedded in broader health sector projects that support more comprehensive approaches. For example, in the Nigeria Booster Project over 40 percent of the US$180 million Booster Program amount supports the strengthening of health and fiduciary systems. In Zambia, more than a third of the total Booster amount (US$20 million) targeted district basket funding at both district and community levels.

Initial Difficulties in Introducing Artemisinin-Based Combination Therapies

ACTs not only are an effective treatment for malaria but also forestall the development of drug resistance in those who take it. Almost every malaria-endemic country in Africa has adopted ACTs as their first-line treatment for uncomplicated malaria, but this policy has yet to be put into practice in

many places. One of the reasons for this is the high cost of the drugs and a lack of viable long-term financing for those countries that have a substantial need and only limited funds. The Bank is taking the lead in addressing this issue by developing innovative financing strategies to reduce the cost of ACTs to the consumer, including designing and piloting the Affordable Medicines Facility for malaria (AMFm), a global subsidy for ACTs, which is expected to be launched in 2008.

The Booster Program team in Africa is working with a number of countries to address various problems at the operational level. Cost is not the only factor hindering the introduction of ACTs in Africa. For example, one problem that has been encountered at the grassroots level is the fact that only a few ACTs have been approved by the World Health Organization (WHO), all of which have a very short shelf life and none of which is easy to administer. A course of treatment involves patients taking multiple doses over several days, with the risk that some people may fail to take the full dosage, thus negating its positive benefits for that individual patient; at the same time it also increases the opportunity for the malaria parasite to develop resistance to the treatment, with dire consequences for the wider population. To minimize the risk of missed doses, manufacturers and social marketing experts have attempted to develop innovative packaging and advertising for new drug products in the pipeline that stress the importance of taking the whole dose. In addition, the limited access to and lack of effective use of ACTs are still major barriers to controlling malaria in many countries. In many cases, people with malaria are treated in their communities with drugs that are no longer effective, such as chloroquine and sulfadoxine-pyrimethamine (SP), or with artemisinin monotherapies that may contribute to the development of resistance to ACTs. The real challenge is to make effective treatment available at the community level through the private sector and community agents while also educating local communities about how to maximize the effectiveness of the treatment.

A Critical Funding Gap

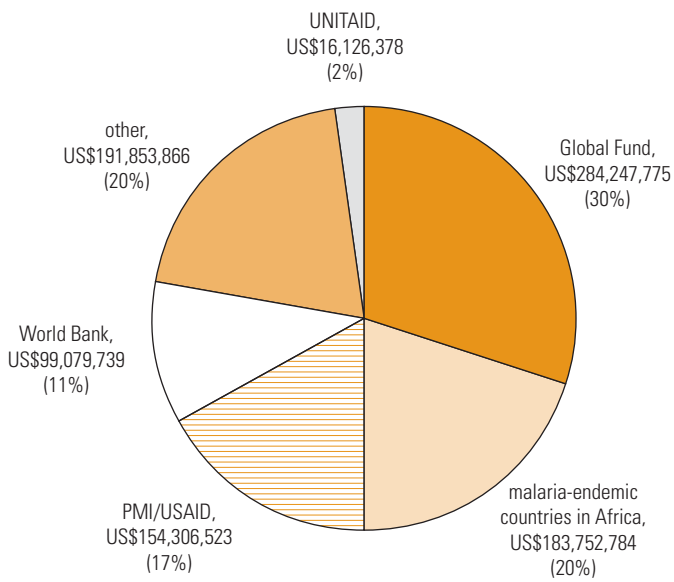
The annual amount of funding needed to control malaria in Africa has recently been estimated to be as much as US$3 billion per year. The U.S. government, the Global Fund, and the World Bank are the three largest donors in the area of malaria control in Africa and collaborate closely as

part the RBM Partnership. Taking into account their contributions, together with in-country budget contributions and those from other donors, it is estimated that approximately US$1 billion a year is currently available to support malaria control in Africa each year (figure 2.5). This leaves a critical gap of approximately US$10 billion over five years (US$2 billion per year) that will be needed to bring malaria under control in Sub-Saharan Africa. The Booster Program is working with its partners (and is encouraging new donors) to ensure that sufficient resources are made available to accelerate and sustain the progress that has been made so far in controlling malaria in Africa.

Lessons Learned from Phase I

As the end of Phase I of the Booster Program approaches, some important lessons are beginning to emerge that need to be taken into account as the program moves into Phase II:[4]

Figure 2.5 Funds Available for Malaria Control (2007)



Funds available, 2007: US$929,367,065

Sources: Global Fund Disbursement Reports; Rounds 6 and 7 Global Fund Proposals.

- Scaling up the coverage and use of effective malaria control interventions while also strengthening health systems is the essential combination for delivering positive health outcomes.
- Most Booster Program countries have failed to scale up their malaria control interventions nationwide. IDA funding constraints have meant that some projects are too limited in size and scope to tackle the burden of malaria in the countries where they are being implemented, resulting in a "sprinkling effect" (a large number of small investments across the Africa region). Many countries are still a long way from meeting their national coverage targets.
- The World Bank's comparative advantages in innovative financing, cross-sectoral projects, and regional support have not yet been adequately exploited.
- Progress has been made in monitoring and evaluating the outcomes of Booster projects, but a major impetus on monitoring and evaluation is still needed to put into practice the consensus among development organizations—about the importance of tracking progress on meeting malaria control objectives—and to intensify M&E for decision making at the country level.
- Malaria projects need a lot of supervision and support from task teams, especially during the first two years of their implementation. To cover the costs of this supervision, the MIRT has had to negotiate with Bank management for more resources to supplement the project supervision budgets; however, this funding gap may need to be filled more systematically, by increasing countries' own budget allocations for project supervision.
- Country leadership is essential for implementing successful malaria control programs and for strengthening capacity at the country level. The Booster Program is putting a lot of emphasis on this crucial requirement.
- As was already clear in the pre–Booster Program era, a dedicated team is needed to initiate, coordinate, and support donor activities in the effort to control malaria in Africa. The MIRT was established to serve this purpose, and the team has been an essential factor in the progress that has been made during the first three years of the program. The Africa Region, the task team leaders, and the Bank's partners have all appreciated the strong support provided by the MIRT team at all levels of the

policy dialogue and program implementation. Without such a team, there is a risk of going back to a fragmented and unfocused approach to malaria control in Africa.

- Scaling up the coverage and use of effective malaria control interventions while strengthening health systems is essential for yielding positive health outcomes.

Notes

1. The Abuja targets were originally supposed to be reached by 2005, a schedule that proved very difficult to achieve in most countries. Broadly speaking, they call for at least 60 percent coverage of effective malaria prevention activities and treatments.
2. The World Bank and Nigeria co-chaired the RBM Partnership's Global Working Group on "Harmonization for Impact in Malaria Control," whose report was completed in 2006. Following the endorsement of the report by the RBM Board, the policy-oriented Global Working Group morphed into the more operations-oriented Harmonization Working Group.
3. Even this project is a malaria-plus package project covering other primary and reproductive health activities.
4. Because the Booster Program portfolio is young, with 74 percent of commitments having been effective for less than 18 months as of mid-June 2008, many projects are still in their start-up phase. As a result, any serious performance issues have yet to become evident.

CHAPTER 3

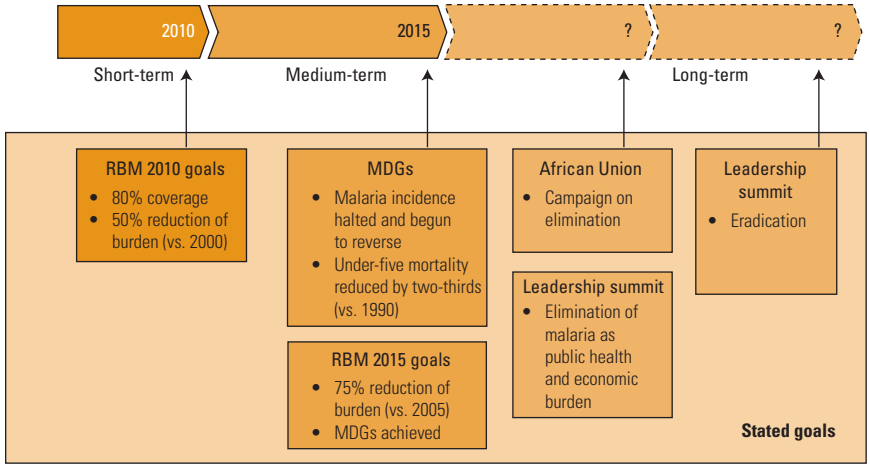
Moving toward Phase II: Context and Challenges

During Phase I of the Booster Program, many technological and political advances have been made in the fight against malaria in Africa. New resources and greater coordination among partners and countries have given rise to new ambitions, while concerns about increasing insecticide resistance and inequitable access to effective treatment have moved to the top of the policy agenda.

The "New" Elimination Agenda for Malaria Control

At the 2007 Malaria Summit hosted by the Bill & Melinda Gates Foundation, the World Health Organization (WHO) and its partners called for a massive scale-up effort to eliminate malaria as a public health threat in Africa over the next five years. The summit also called for the eradication of malaria to be a long-term goal of the development community (see figure 3.1). The organizations attending the summit agreed on the need to treat Africa as an island and to think in terms of ecological as well as political maps. Experts expressed concern about the patchy progress being made across the continent and called for the development community to take a "public good" approach to malaria. In particular, they cited the need for more vector control through the spraying of households and the provision of long-lasting insecticidal nets (LLINs), coupled with increased access to effective treatment to drive down transmission. With this agreed-upon agenda, the development community and malaria-affected countries recommitted themselves to a concerted 36-month effort to reach the Abuja targets by 2010.

Figure 3.1 Malaria Control Goals and Deadlines



Source: Roll Back Malaria Partnership 2007.
Note: MDGs, Millennium Development Goals; RBM, Roll Back Malaria.

A Commitment to the Concept of "Scaling Up for Impact"

Unlike many other public health problems, the number of malaria cases is amenable to being reduced very rapidly. The disease is both preventable and treatable with cost-effective tools and strategies. Controlling malaria successfully necessitates taking bold, decisive steps to ensure widespread coverage of proven malaria-control interventions as quickly as possible. Thereafter, these gains must be consolidated and sustained through regular public health services such as antenatal care, integrated management of childhood illnesses, periodic health campaigns such as child health days, and improved surveillance and monitoring.

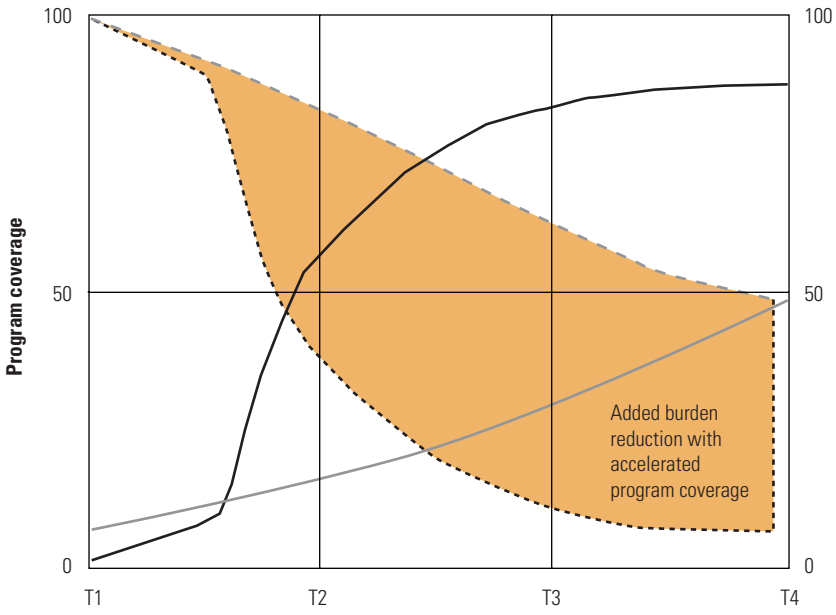
One of the underlying principles that has fueled the rapid demand from malaria-endemic countries for International Development Association (IDA) resources has been their desire to front-load their malaria control activities in an attempt to drastically reduce the burden of the disease. The front-loading concept—which can be defined as making a strong and concentrated effort at the outset of an initiative (as opposed to taking a more incremental approach)—has also been termed "scaling up for impact" (SUFI) in the development community.

The 13th Roll Back Malaria Partnership (RBM) Board meeting in Addis Ababa in 2007 endorsed the development of a single integrated Global

Malaria Action Plan (GMAP) by the RBM Partnership. The aim of the GMAP is to define the vision, goals, and strategy of the RBM Partnership as well as the concrete actions needed to achieve them. It will reinforce the current SUFI strategy and provide strong momentum toward achieving the 2010 RBM goals. It will also define a longer-term strategy for the RBM Partnership aimed at eliminating malaria in Africa. By prioritizing activities and coordinating the different responsibilities of the various partners in the RBM Partnership, it will help to maximize the impact of the Partnership's efforts against malaria.

It was in this context that several key development leaders, including World Bank President Robert Zoellick, announced a new effort to mobilize human and technical resources for SUFI in the context of the elimination agenda at the Davos World Economic Forum in January 2008 (see figure 3.2). This accelerated effort came in response to a recent report produced for the RBM Partnership, which estimated that 3.5 million lives could be saved over the next five years through the rapid scale-up of malaria prevention and

Figure 3.2 The Relationship between Malaria Program Coverage Scale-Up and the Reduced Burden of Disease



Source: Malaria Control and Evaluation Partnership in Africa (MACEPA), 2006.
T = years

treatment measures in the 30 hardest-hit countries in Africa (McKinsey and Company 2008). In addition, a rapid scale-up of these measures in Africa could increase annual economic output by as much as US$30 billion, prevent malaria from being transmitted to 672 million people, and free up 427,000 needed hospital beds over five years across the continent.

The World Bank and other donors have embraced the concept of SUFI and are now front-loading their financing to countries to help them bring malaria down to more manageable levels as soon as possible. Partnerships are essential for achieving SUFI, and in recent months, the Bank's development partners have come together to ensure that the financing for this scaling up of malaria control will be replenished to safeguard the progress made so far. In support of these scale-up efforts, on World Malaria Day 2008, the UN secretary general endorsed the SUFI concept and called for the rapid scale-up of universal access to effective vector control with LLINs and indoor residual spraying (IRS) to help meet the 2010 targets, to which the Bank subscribed.

Coordination under the RBM Partnership to Scale Up for Impact

As a member of the RBM Partnership, the Bank supports the massive scale-up that is planned for the next 36 months across Africa. Recently, the Booster Program and its partners—nongovernmental organizations (NGOs), United Nations (UN) agencies, the Global Fund, the U.S. government through the President's Malaria Initiative (PMI) and the U.S. Agency for International Development (USAID), the U.K. Department for International Development, the Bill & Melinda Gates Foundation, and others—have pledged to be more responsive to the needs expressed by countries and to strengthen the RBM Partnership's role in coordinating the massive efforts needed to bring malaria in Africa under control.

As part of the 36-month scale-up effort, the RBM Harmonization Working Group (HWG) is helping 45 countries make a comprehensive assessment of their malaria control needs and mobilize resources both internally and externally.

The HWG has proposed creating a Malaria Implementation Support Team (MIST) within the RBM, a proposal that was endorsed by the RBM Board in November 2007 and announced in Davos in January 2008. The RBM MIST will help countries scale up their malaria control efforts rapidly

over the next 36 months in an attempt to achieve the RBM target of 80 percent coverage of key interventions. The MIST will largely focus on Sub-Saharan Africa, given that approximately 90 percent of all malaria deaths occur there, but will also provide targeted support to other parts of the world, in particular South Asia, where the incidence of the disease is starting to increase again and where *Plasmodium falciparum*, the most deadly form of malaria, is making significant inroads. Countries themselves will lead the accelerated effort, with the MIST coordinating the resources of the RBM Partnership to support them.

The RBM Partnership Board has endorsed a global subsidy for malaria drugs—the Affordable Medicines Facility for malaria (AMFm)—with the aim of increasing access to affordable malaria treatment. Through the Booster Program in Africa, the Bank will be playing a key role in implementing the subsidy at country level. The Bank recognizes that equitable access to effective treatment is critical to achieving the RBM targets in Africa.

Current Challenges

Both the global and institutional levels of the Bank face some significant challenges to achieving this ambitious agenda.

Global Context

The higher level of ambition and optimism of the international malaria control community, including the goal of eliminating and eventually eradicating malaria, is welcome. However, this political commitment needs to be backed up by sufficient financial and technical resources, and careful attention needs to be paid to lessons learned from earlier attempts to eliminate and eradicate malaria, including the need to improve the performance of health systems, the need for sensitive surveillance systems, and the need to increase diagnostic capacity. In addition, this commitment requires that the development community and national governments increase regional and cross-border collaboration, given that eliminating malaria in one country is highly dependent on what progress is being made in its neighboring countries.

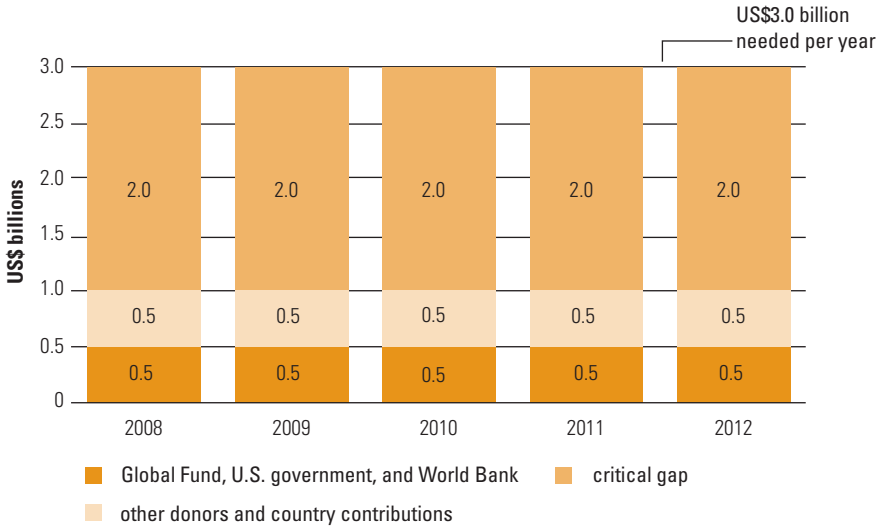
Although great strides have been made in harmonizing and coordinating the work of donors under the RBM Partnership, more needs to be done given

the massive scale of the effort that will be needed to bring malaria under control. In recent months, many new task forces have been created, and these groups need to be coordinated in order to achieve the RBM objectives.

Over the past three years there has been a 300 percent increase in direct malaria control financing worldwide. However, given the anticipated US$10 billion gap in funding over the next five years, more resources will need to be mobilized urgently if SUFI is to be achieved, a challenge that the Booster Program and the Bank's partners recognize. The RBM Partnership has begun to develop a strategy for mobilizing resources to fund countries' malaria control activities. In this context, the Bank is an active member of three RBM groups advancing this effort: (i) the RBM Malaria Advocacy Working Group, (ii) the Resources and Financing Working Group, and (iii) the Performance Task Force of the Executive Committee of the RBM Board. The Malaria Implementation Resource Team (MIRT) is actively working to attract new donors to fund the malaria control efforts in Phase II of the Booster Program.

Over the next five years, all donors and endemic country governments will have committed approximately US$5 billion among them, leaving a critical gap of approximately US$10 billion to bring malaria under control in Sub-Saharan Africa, as shown in figure 3.3. This does not take into account funding projections for the U.S. PMI in 2008 or potential Global

Figure 3.3 The Annual Funding Needed to Control Malaria in Africa



Source: RBM Partnership.

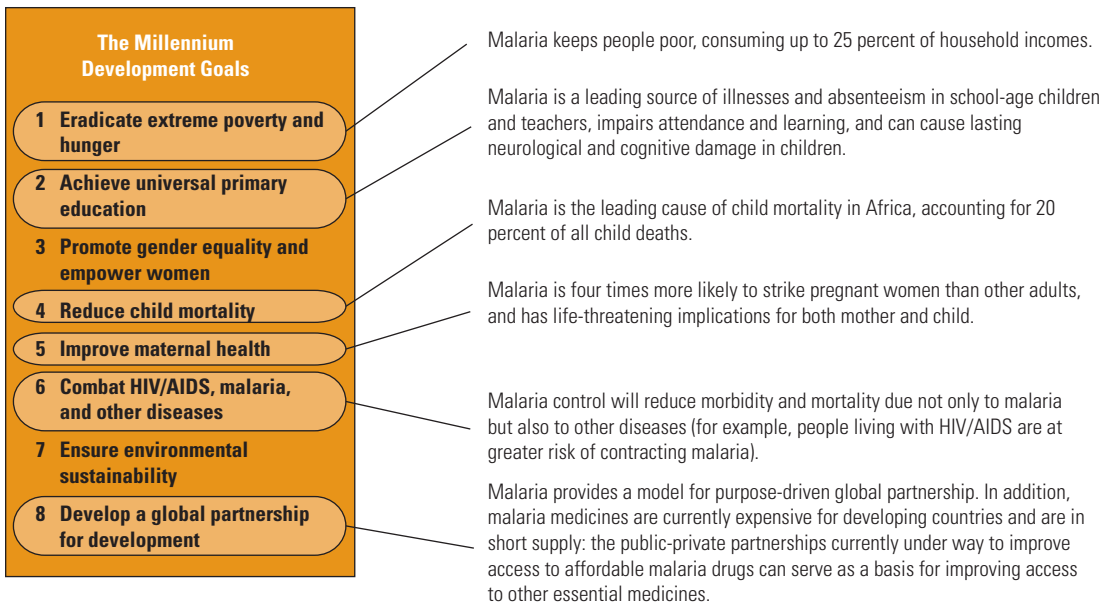
Fund Round 8 funding, which would become operational in November 2009, as well as the US$3.1 billion combined commitment made by the Bank and other partners on September 25, 2008, at the MDG Malaria Summit held during the United Nations General Assembly in New York.

World Bank Policy Context

Reducing the burden of malaria in Africa is a theme that runs throughout the World Bank's development agenda and priorities for the region. Furthermore, the control and elimination of malaria as a disease of public health and economic importance is an international objective to which World Bank leaders have pledged their support.[1]

Like nutrition, malaria has the potential to affect the achievement of several MDGs, especially in Africa, given the high burden of the disease on that continent (see figure 3.4). All major development agencies are committed to achieving the MDGs, but there is evidence that Africa is not on track to reach these goals by the deadline. In September 2007, the leaders of the eight major multilateral and intergovernmental organizations working for

Figure 3.4 The Millennium Development Goals and Malaria



Source: World Bank Booster Program staff 2007.

development in Africa, including the president of the World Bank, reaffirmed their commitment to helping Africa achieve its MDG targets by launching the MDG Africa Steering Group. The group focuses on (i) strengthening international mechanisms to support implementation in the five areas of health, education, agriculture and food security, infrastructure, and statistical systems; (ii) making aid flows more predictable and reliable; and (iii) enhancing coordination among donors at the country level. It is widely recognized that, without major progress in the control of malaria, it will be very difficult to achieve the MDGs in Africa.

World Bank President Zoellick has defined six strategic themes that will underpin the Bank's contributions to economic development during his tenure. One of the six themes states: "[The World Bank will be] playing a more active role with regional and global 'public goods' on issues crossing national borders, including climate change, HIV/AIDS, malaria, and aid for trade." It is clear from this statement that malaria control is a global and regional public good and that addressing the cross-border and regional aspects of malaria is a strategic priority for the Bank. Less apparent but also important is the fact that the World Bank's Strategy for Addressing Climate Change in the Africa Region recognizes the vital importance of reducing malaria transmission now, and of developing the capacity to detect and address future outbreaks, resurgences, and epidemics of malaria and other vectorborne diseases (Nguyen, Qamruddin, and Clark 2008). In recent years, there has been a resurgence of malaria in areas where the disease was once eliminated or under control. As temperatures and humidity increase, mosquitoes will proliferate in these more hospitable environments, and, if they are not controlled, malaria transmission will increase in many regions in the world, including those parts of Sub-Saharan Africa where transmission has so far been low or absent.

The role of the World Bank in the fight against malaria is articulated in the new World Bank Health, Nutrition, and Population (HNP) Strategy (World Bank 2007). This document sets out how the Bank aims to improve the health conditions of people in its client countries, particularly the poor and vulnerable, in the context of its overall strategy for alleviating poverty. The HNP Strategy states that investing in disease control programs and in strengthening health systems are mutually reinforcing and necessary to achieve and maintain positive health outcomes.

As noted in chapter 1, malaria accounts for 20 percent of under-five mortality in African countries south of the Sahara, and the health systems in

these countries struggle to cope with the disease. Although most people seek care for malaria outside the formal health system, between 30 and 40 percent of outpatient visits and inpatient admissions in health posts, clinics, and hospitals involve the diagnosis and treatment of the disease (WHO/UNICEF 2003). As malaria is often the most commonly cited reason for outpatient consultations and hospitalizations, the disease provides an essential lens through which to prioritize investments in health systems, and its indicators are an important way to measure whether those investments are resulting in improved health outcomes.

Closely linked with both the HNP Strategy and the World Bank Booster Program is the World Bank's engagement in the International Health Partnership (IHP). The development community launched the IHP in London in September 2007 as part of a renewed global push to meet the health MDGs aimed at *cutting child deaths*, *reducing maternal mortality*, and *fighting major diseases*. The aim of the IHP is to make health aid more effective in poor countries by (i) focusing on improving health systems as a whole as well as on individual diseases and issues, (ii) ensuring better coordination among donors, and (iii) developing and supporting countries' own health plans.

The Bank's Regional Assistance Strategy

The African Union (AU) strongly promotes the concept of regional economic integration as a driver of growth and poverty reduction in Africa. In response, the World Bank has broadened and strengthened its support for regional integration over the past four years, culminating in the development of the World Bank's Regional Integration Assistance Strategy (RIAS) for Sub-Saharan Africa 2009–2011. Phase II of the Booster Program is guided by this strategy in several ways. Most directly, Pillar 1 (which concerns regional and cross-border malaria prevention and control) is a direct response to one of the key objectives of the RIAS, which calls for regional and subregional programs to address the cross-border dimensions of malaria prevention and treatment. The Booster Program carries forward the RIAS agenda in several other ways, including the following:

- Rationalizing research and tertiary education across the region to strengthen Africa's technical capacity and increase skilled human capital
- Supporting subregional networks of national programs and regional expert bodies to monitor the efficacy of drugs and insecticides or pesti-

cides as part of the need for intensive multicountry surveillance in the drive to eliminate malaria

- Improving supply management systems (which are continually identified as a major bottleneck to scaling up and improving regional surveillance) by increasing telecommunication connectivity
- Advocating the reduction of tariff barriers for intraregional trade and controlling the cross-border movement of substandard and fake antimalarials as well as of subsidized artemisinin-based combination therapies.

The Booster Program also has the opportunity to leverage the engagement and resources of the International Bank for Reconstruction and Development, the International Finance Corporation, the Multilateral Investment Guarantee Agency, the Inter-American Development Bank, and the African Development Bank.

Note

1. This support was reiterated by Obiageli Ezekwesili, vice president, Africa Region, and Joy Phumaphi, vice president for human development at the Bill & Melinda Gates Malaria Forum and Leadership Summit in Seattle, in October 2007, and by World Bank President Zoellick in Davos in January 2008.

CHAPTER 4

Booster Program for Malaria Control in Africa: Phase II

The Phase II strategy takes into account the major developments that have occurred in the area of malaria control during the period of Phase I. The strategy was prepared against a backdrop of a 300 percent increase in direct worldwide financing for malaria control over the past three years. As already noted, all organizations and governments involved in the fight against malaria have become more ambitious about what can be achieved and have adopted the goal of eliminating malaria as a public health and economic threat in Africa within five years.

A Consultative Process

The World Bank's Malaria Implementation Resource Team (MIRT) took the lead in designing Phase II of the Booster Program for Malaria Control in Africa. To ensure that the views of all partners and client countries were heard, a high-level advisory committee for Phase II was established and has met periodically since November 2007.

In addition, the MIRT hosted a broader consultation meeting on Phase II in Washington, DC, on January 29–30, 2008. The event brought together more than 40 client government representatives, global partners and donors, private sector organizations, nongovernmental organizations (NGOs), malaria advocates, and World Bank staff members to review the progress made in the Booster Program to date. The participants shared challenges and successes, discussed what interventions should be prioritized in Phase II, and agreed on the specific actions that the Bank should take to complement those of other international actors in malaria control.

The outcome of these consultations helped the Africa Region to refine the key elements of the Phase II strategy. Participants agreed that the proposed strategy capitalizes on the Bank's comparative advantages. A consensus was reached with partners and client countries on the fact that the Bank needs to remain engaged in light of the leadership role that it has played in Phase I of the program and given the community's new goal of eliminating malaria (please see the chronology of Phase II development in appendix 2).

The Design of Phase II

Building on the progress made and the lessons learned in Phase I, Phase II is the Bank's contribution to eliminating malaria as a major public health problem in Africa (see table 4.1). This phase will span three years (from July 1, 2008, to June 30, 2011) with an evaluation after the three years to assess the program, reallocate resources if priorities for funding change, and inform Phase III, which is envisioned to last from July 1, 2011, to June 30, 2015.

Phase II will aim to capitalize fully on the Bank's comparative advantages. As outlined in appendix 3, the Bank is well equipped to assist countries in strengthening health systems while helping to bring down the burden of malaria in Africa. The Booster Program is working with both the U.S. President's Malaria Initiative (PMI) and the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund) to ensure that institutions' strengths complement rather than duplicate each other. As a result, funding for malaria control efforts is becoming better coordinated and more effective on the ground.

Phase II will comprise five related pillars (see figure 4.1):

1. Regional/cross-border malaria prevention and control
2. More substantial support for high-burden countries with high unmet need
3. Sustained support for ongoing Booster projects and targeted support for new country activities
4. Facilitation of national and regional policies and strategies to increase equitable access to effective malaria treatment
5. Strengthening of health systems in Booster countries

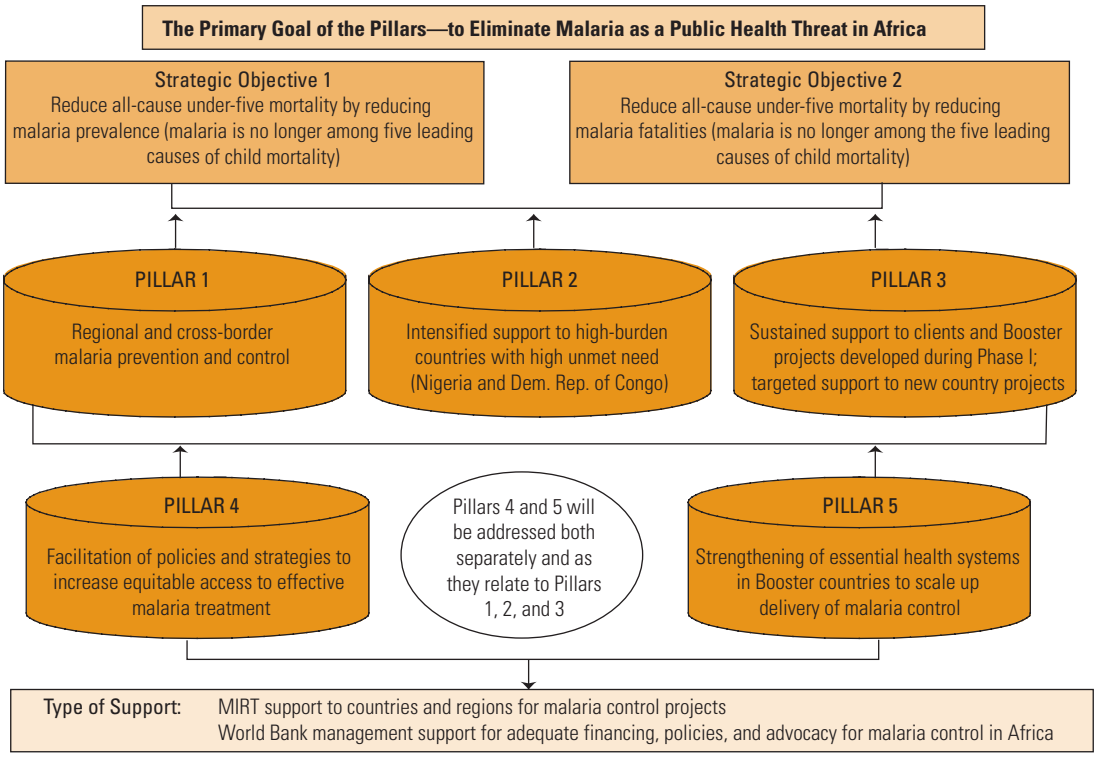
Each of these pillars has a specific goal and rationale, as well as a selection of activities that will be tailored to meet country and regional needs.

Table 4.1 Differences between Phase I and Phase II

ELEMENT	CHANGE FROM PHASE I
Funding	Will double from US$500 million to at least US$1 billion
Geography	Will provide more resources for countries with high malaria burden and unmet needs and for subregions and cross-border areas by taking a strategic rather than an opportunistic approach
Goal	Will contribute to the elimination of malaria as a major public health threat in Africa by helping to reduce malaria morbidity and mortality and by removing malaria as one of the top five causes of under-five deaths
Features	• A front-loaded effort • Capitalizes more fully on the World Bank's comparative advantages • Addresses key health system bottlenecks • More rigorous, results-based, systematic monitoring and evaluation • Strengthened outreach, communications, and advocacy • Intensified collaboration among donors, working toward a common approach to controlling malaria at the country level

Source: World Bank Booster Program staff 2008.

Figure 4.1 Phase II Conceptual Framework



Source: World Bank Booster Program staff 2008.

Phase II of the Booster Program is specifically designed to complement and leverage the efforts of other donor partners, especially the Global Fund and the U.S. PMI. This complementarity is particularly evident in the focus on regional and cross-border control of malaria and health systems strengthening, which have been inadequately addressed by other donors and are comparative advantages of the Bank. It can also be seen in the concentration of the Bank's efforts in large high-burden countries such as Nigeria and the Democratic Republic of Congo, where the resource needs are extremely high. In these contexts, coordinated and complementary financing strategies with other donors are necessary to provide equitable access to essential malaria prevention and treatment services for the whole population. In fact, Nigeria's Global Fund Round 8 application is designed to establish this complementarity and explicitly takes into account the Bank's investment in malaria and health systems.

Estimated Resource Envelope for Phase II

As already indicated, Phase II will be a strategic and accelerated scale-up of the Bank's malaria control efforts. Given the wide scope of Phase II, it will be vital for significant amounts of International Development Association (IDA)–15 resources (the most recent replenishment of IDA's resources that will finance projects from June 2008 to July 2011) to be available up front to achieve scaling up for impact (SUFI). It is important to note that the program will pursue Pillars 4 and 5 in the context of specific country and regional programs. In order to ensure that sufficient attention is given to both increasing access to treatment and strengthening health systems, a distinct budget line has been allocated to each of these critical pillars. This will be essential to monitor the outcomes of the key actions taken under each of the pillars to ensure that the resources are being spent effectively. When these points are taken into account, it is expected that US$1,125 million will be required for Phase II from IDA-15 (see table 4.2). These resources will come directly from the IDA country envelopes and, in the case of the regional program, two-thirds will come from the regional IDA budget. The front-loaded effort in Phase II will be a critical factor in controlling the disease in Africa. The evaluation that will take place after Phase II will provide the rationale for the Booster Program's eventual request for support from IDA-16.

Table 4.2 Draft (Illustrative) Resource Envelope for Phase II Pillars

PILLARS	TOTAL (US$ MILLIONS)
Pillar 1	500
Pillar 2	400
Nigeria	*300*
Congo, Dem. Rep. of	*100*
Pillar 3	225
Pillars 4 and 5	Incorporated into Pillars 1, 2, and 3
Grand Total	**1,125**

Source: World Bank Booster Program staff 2008.

Strategic Objectives of Phase II

The strategic objectives of Phase II are to reduce malaria prevalence and to reduce the number of malaria fatalities, thus lowering the overall under-five mortality rate. It is expected that, after these objectives are achieved, malaria will no longer be among the top five leading causes of under-five mortality in countries where the Booster Program is operating. The specific objectives, planned actions, indicators, and targets of Phase II are described in the Phase II Results Framework (appendix 4) and in the Phase II Action Plan (in appendix 5).

Pillar 1—Regional and Cross-Border Malaria Prevention and Control

The goal of Pillar 1 is to maximize regional and cross-border malaria control activities with the aim of eventually eliminating the disease. The rationale behind this pillar is that over 97 percent of the available funds to fight malaria in Africa are country-specific. As scaled-up national efforts are the foundation of malaria control, the focus on country-specific financing has proved to be appropriate so far. If specific countries begin to make substantial gains but these are put at risk by cross-border transmission from their less successful neighbors, then the Booster Program may need to begin financing groups of countries together, otherwise known as subregional financing.

The 2007 Malaria Summit hosted by the Bill & Melinda Gates Foundation called for the elimination of malaria as a public health threat in Africa,

for Africa to be treated as an island, and for donors to work in the context of ecological (rather than just political) maps. Experts expressed concerns about the patchy progress being made across the continent and called for the financing of malaria control to be driven by a "public good" approach, particularly with regard to vector control using spraying and mosquito nets to drive down transmission. While mosquitoes themselves do not fly far, human population movements can carry infection across borders (especially those with few controls between neighboring countries).

Given that both the Global Fund and the U.S. government allocate their development funds on a country-by-country basis, little subregional financing exists at the moment. The World Bank has both the leadership potential and the financial power to initiate subregional activities, as has been effectively demonstrated, mostly in the energy and infrastructure sectors but also in the health sector, such as in the Bank's Senegal River basin and HIV/AIDS projects. Cross-border transmission of malaria is unlikely to be reduced by country-specific approaches alone, as governments usually have fewer incentives to focus on border areas than on central parts of the country. This is especially the case when a scarcity of resources and political pressure lead governments to spread the limited resources available to them throughout the country rather than concentrate them in only a few of the neediest areas. However, without cross-border initiatives, any within-country gains could be jeopardized. The Bank's ability to convene high-level discussions at both the country and the regional level will be an important factor in ensuring adequate IDA support for these initiatives.

As individual countries or groups of countries move toward the elimination of malaria, there is an urgent need to increase national and cross-border capacity in epidemiological and entomological surveillance and response. Significantly reducing the prevalence of malaria will save many lives, but it will also leave all age groups in the population immunologically vulnerable to the disease. If cases of malaria are not identified and treated quickly, and if the vector populations are not vigorously monitored, this hard-won progress may be reversed, creating an unacceptably high risk of potentially devastating epidemics.

The Africa Region has developed a regional strategy that aims to move the malaria transmission zone gradually northward from Southern Africa (see appendix 6). As part of this pillar, the MIRT has been meeting with the

Bank's Regional Integration Unit in Africa (malaria control being a key pillar of the Bank's Regional Integration Assistance Strategy (RIAS) for the Africa Region). The MIRT is also working with key internal and external partners to do the following:

- *Identify main actors.* Clarify which institutions the Booster Program should invest in, which regional and subregional bodies will be needed to coordinate and implement the regional project, and what kind of investments should be made.
- *Strategize geographically.* Focus only on areas where a regional approach can deliver a better outcome than a country's efforts alone. Identify a cluster of countries, as this adds value for epidemiological and economic reasons.
- *Develop strong monitoring and evaluation.* Strengthen subregional capacity for surveillance and differential diagnosis and standardize the case definition for malaria, create multicountry networks of national monitoring and evaluation (M&E) teams, and support multicountry networks for monitoring the efficacy of drugs and insecticides.
- *Build new partnerships and strengthen existing ones.* Consider inviting the African Union to join the effort to create regional policies, conduct M&E, and share information and asking the African countries themselves to contribute to existing regional efforts. Those efforts include (i) the Southern Africa Development Community's subregional proposal being developed for submission to Round 8 of the Global Fund on July 1, 2008; (ii) the cross-border activities of the Roll Back Malaria (RBM) Harmonization Working Group (HWG); and (iii) those NGOs that are well positioned to implement cross-border programs, especially the delivery of services, M&E, and the training of community health workers and local government administrators.
- *Increase efficiencies and address common constraints.* Identify opportunities for more effective collaboration, joint planning and integrated program implementation with other priority public health programs such as HIV/AIDS, tuberculosis, and neglected tropical diseases.
- *Share successes to date and lessons learned.* Support and document the most effective cross-border programs as examples of best practice.

Pillar 2—More Substantial Support to High-Burden Countries with High Unmet Needs (Nigeria and the Democratic Republic of Congo)

The goal of this pillar is to help high-burden countries achieve more widespread coverage and increase the use of effective malaria prevention and treatments. Its rationale is the need to slash the malaria burden in two countries in particular: the Democratic Republic of Congo and Nigeria, which together account for about 50 percent of Africa's malaria infections and deaths.

Currently, IDA commitments to Nigeria and the Democratic Republic of Congo stand at US$180 million and US$43 million, respectively, with about US$30 million in cleared or upcoming disbursements. It is important to note that, although the current financing envelopes from the Bank for these two countries are among the largest given to each of these countries, they cover only a small percentage of each country's need. The Bank is the largest provider of support for malaria control in Nigeria and is on par with the Global Fund in the Democratic Republic of Congo. These countries are both going to need substantial implementation support from the Bank, with the strong support of the RBM HWG and the proposed Malaria Implementation Support Team (MIST), to make the existing monies work. However, because IDA financing for malaria control in both countries ranges from only US$0.66 to US$1.20 per capita in areas covered by Booster projects, significantly more resources will be required up front, in line with the concept of front-loading efforts, to achieve the 80 percent national coverage targets and to enable these countries to participate in cross-border efforts and the elimination agenda by the end of Phase II.

At least US$400 million in IDA resources will be needed for both Nigeria and the Democratic Republic of Congo, but the exact amount will be refined after the completion of the needs assessment and business planning process being carried out in those countries by the RBM Harmonization Working Group. The MIRT has funded an assessment of constraints in the health systems of the two countries and support for similar assessments in all Booster countries. Finally, the Bank will carefully assess any request for emergency IDA funding from any African country that it has previously assisted.

The Bank will take the following actions to achieve the goals of this pillar:

- *Develop a comprehensive intervention package based on the results of the country assessments carried out in Nigeria and the Democratic Republic of Congo by the RBM Harmonization Working Group and build on the support for malaria control that the Bank already provides in those countries.* It is expected that the

assessments will gather information on the cost situation on the ground, the most effective delivery mechanism, and lessons learned in these countries in the past several years. These assessments will also look to other countries for best practice experiences and lessons learned. They will not be limited to issues of interest to the World Bank but will include the needs of the countries themselves as well.

- *Continue to support malaria control activities as well as strengthening of health system functions, particularly in the case of programs aimed at increasing newborn and child survival rates.* This will be done by addressing malaria control in an integrated manner: management of childhood illnesses, antenatal care services, supply chain management, monitoring and evaluation, etc. The Bank will also pursue multisectoral initiatives where appropriate.
- *Work to increase resources and ensure that future funding levels are set as early as possible to inform planning.* The Booster Program and its partners need to invest at a level that is high enough to give these countries an opportunity to scale up for impact. After the amount of IDA resources to be allocated to Phase II has been defined, the MIRT will develop a strategy for securing any additional funding that may be needed. It is crucial for countries to know exactly how much money they can expect to receive to fund these activities.
- *Support capacity building and research and ensure that the findings of any research on malaria are widely disseminated.* Some countries emphasize the use of bed nets for vector control, while others also include indoor residual spraying (IRS). The merits of these approaches in various settings need to be better researched and documented, and more training needs to be provided to help individuals and households understand how best to reap the benefits of these approaches.
- *Continue to leverage the strengths of various partners.* The Bank will take advantage of its own ability to bring countries and donors together to share information and knowledge. The RBM Harmonization Working Group will coordinate the response of donors to countries' needs.

Pillar 3—Sustained Support for Ongoing Booster Projects and Targeted Support for New Country Efforts

The goal of this pillar is to optimize the returns from the investments made by countries during Phase I by encouraging them to make further progress

toward their malaria control targets and the Millennium Development Goals (MDGs). The rationale behind this pillar is to continue to support ongoing Booster projects, all of which are quite young. Almost half of the Board-approved Booster projects have been in effect for less than one year, and there are several projects still under development (for example, in Cameroon and Madagascar) or with pending Board dates (Mozambique). Therefore, the major part of Phase I will be implemented in the next three years, and providing technical support to these Phase I projects will be a significant part of the MIRT work plan during Phase II. This support will be crucial to ensure the success of the Booster Program overall and the effectiveness of the investments made during Phase I in particular.

Some of the more mature projects, such as the one in Zambia, require additional financing as well as consistent and predictable support in the medium term, which will allow the governments in question to plan ahead in pursuit of the MDGs. The Bank can help by filling any unexpected yet critical gaps in funding that may arise. For example, in Zambia, funds from the Booster Program have been spent ahead of schedule, and the Bank is working to secure additional funding sources (as it has done with the Russian Federation) as well as secure the commitment of new IDA-15 resources.

Nonetheless, the World Bank needs to rationalize its support on a country-by-country basis. Bank staff need to make clear and informed decisions based on their dialogue with the Bank's clients about whether to extend, expand, or terminate Booster projects. The Phase I portfolio review revealed that there was a "sprinkling effect" in terms of the distribution of resources; in other words, there are a large number of small projects with very focused activities, such as a one-time procurement of long-lasting insecticidal nets (LLINs). Although smaller projects or even one-time expenditures may be critical to a nation's malaria control program, they consume a disproportionate amount of the MIRT's resources in terms of supervision and technical support. In Phase II, current projects will be classified in terms of the amounts of funding that they have received from the Bank, and any new projects should be subject to requirements such as a minimum funding amount and a minimum number of components. As a result, in Phase II, the Booster Program portfolio will contain fewer projects characterized by disproportionately high (relative to the value of the credit) transaction costs, poor performance, or high political risk.

Table 4.3 suggests a way to categorize ongoing and new Booster projects for managerial and planning purposes during Phase II.

Table 4.3 Potential Project Categories

CATEGORY	COMMENT
New starts	This will include regional and cross-border projects discussed under Pillar 1 and possibly new country programs, depending on demand.
Increase/expand	The primary focus will be on the Democratic Republic of Congo and Nigeria under Pillar 2.
Continue with additional funding	This may include countries like Zambia where there is a definite interest in continuing to use IDA funds for malaria control.
Consolidate and exit	This will include countries that no longer wish to use IDA funds for malaria control or where the transaction cost or political risk is too high in regard to funding.
One-time expenditures	An aspect of flexible funding, this will be a time-limited planned or unplanned use of Bank funds to fill a critical gap in supplies and services at the country level.

Source: World Bank Booster Program staff 2008.

Phase I investments will be implemented with technical support from the MIRT to ensure the quality of the project and the achievement of results.

The key actions to achieve this pillar include the following:

- *Hold a dialogue between the MIRT and the task team leaders and country teams on each ongoing Booster Program project.* Dialogues should assess and agree on the need for malaria control activities both in the short and long term.
- *Develop exit strategies.* Exit strategies for World Bank support should be based on project-specific criteria and changes in support from other sources.

The majority of projects in the Booster portfolio aim to increase access to artemisinin-based combination therapies (ACTs) and to strengthen health systems, particularly in the areas of M&E, procurement, and supply chain management. The Booster Program will also consider additional single-country projects on a case-by-case basis with reference to the gap analyses and needs assessments to be carried out by the RBM Harmonization Working Group.

Pillar 4—Facilitation of Policies and Strategies to Increase Equitable Access to Effective Malaria Treatment

The goal of this pillar is to increase access to effective antimalarial treatment by supporting interventions that aim to overcome identified obstacles to

access. Equitable access to malaria treatment is an area that has been less clearly defined and therefore less coherently supported than malaria prevention, which has benefited from the setting of clear targets for access and delivery systems based on operational research, pilot projects, and debate. The Bank will increase its support for prevention through the other four pillars, but in Pillar 4, it will support innovative approaches, drawing on the capacity of the private sector and local communities to widen access to effective treatment.

Even though ACTs have been widely adopted as a first-line treatment for malaria, they are still reaching very few people infected with malaria. Therefore, action is urgently needed to increase the coverage of this effective treatment. The Bank will work toward this goal by establishing public-private partnerships, by encouraging community-based interventions and training, and by strengthening such key health system functions as consumer protection, quality assurance, and pharmaceutical management.

As described in chapter 2, one recent development has been the establishment of the Affordable Medicines Facility for malaria (AMFm) to subsidize the consumer price of ACTs. The support that the Bank will provide under this pillar will also increase access to curative care for other common diseases.

The Booster Program recognizes that the AMFm will require a whole range of supporting interventions to achieve its objectives, but several of these interventions are needed regardless of whether or not the AMFm is introduced in any specific country. Therefore, the Booster Program will work closely with key partners and with such entities as the International Finance Corporation, NGOs, and civil society organizations to ensure the successful implementation of this work at the country level. Specifically, the program will support community-based ways of providing treatment and ways to increase and improve cross-country exchanges of experiences. It will also be crucial for the program to find ways to overcome the common barriers to accessing public health treatments (such as limited geographic coverage, low-quality care, a lack of drug supplies, high user fees, and the unavailability of trained staff) to ensure that access to treatment is increased.

When the AMFm becomes operational (probably in late 2008 or early 2009), it is expected to result in an immediate and substantial increase in access to affordable and effective malaria treatment in many African countries. Although this increased access, particularly in the private sector, is most welcome, it is likely to place a heavy burden on the public sectors of those countries to fund and perform their role as the regulator of drugs, facilities,

and quality assurance. The MIRT is working closely with its partners, both internally and externally, in the newly restructured AMFm Task Force to identify needs, priorities, and interventions to help governments with their role as regulators. Therefore, the AMFm will have several major implications for Phase II: First, existing and new IDA financing for ACTs will be allocated to support interventions to ensure the safe and successful launch of the AMFm. Second, the Bank will increase its support for countries such as Nigeria, where ACTs are already being made available through the private sector. Third, the Bank will promote the expansion and strengthening of community-based delivery of ACTs through the formal and informal private sector, including community health workers and women's groups, to ensure widespread and equitable access to ACTs at the country level.

The following are some key actions that the Bank will take to support this pillar:

- Provide comprehensive support to countries to develop public-private partnerships with treatment providers and to scale up community-based interventions.
- Support interventions to improve the treatment delivered by community agents and private providers to increase access to effective treatment.
- Support analytical work on the stewardship role and capacity of the public sector in the context of the AMFm.
- Strengthen—through regulatory enforcement—the capacity of the public sector to protect consumers and ensure the quality of products and services provided in the public, community, and private sectors.
- Strengthen facility-based curative care, including infrastructure where needed, to ensure that lives are saved by increasing the capacity of health systems to diagnose malaria and provide urgent and effective treatment of severe cases of malaria.

Pillar 5—Strengthening of Health Systems in Booster Program Countries to Scale Up the Delivery of Malaria Control

The goal of this pillar is to strengthen health systems, which are essential for scaling up malaria control and other public health activities. As in Phase I of the Booster Program, Phase II will make substantial efforts to

strengthen health systems to achieve and sustain malaria control and to reduce the burden that the disease puts on health systems. Given that the focus in Phase II is on eliminating malaria as a public health threat and reducing the economic burden of the disease in Africa, the Bank will use its comparative advantages to strengthen health systems in areas such as human resource development, supply chain management and procurement, monitoring and evaluation, planning and budgeting, and governance. Malaria will be used as a tracer for both identifying and addressing systems' bottlenecks that hamper the achievement of health outcomes.

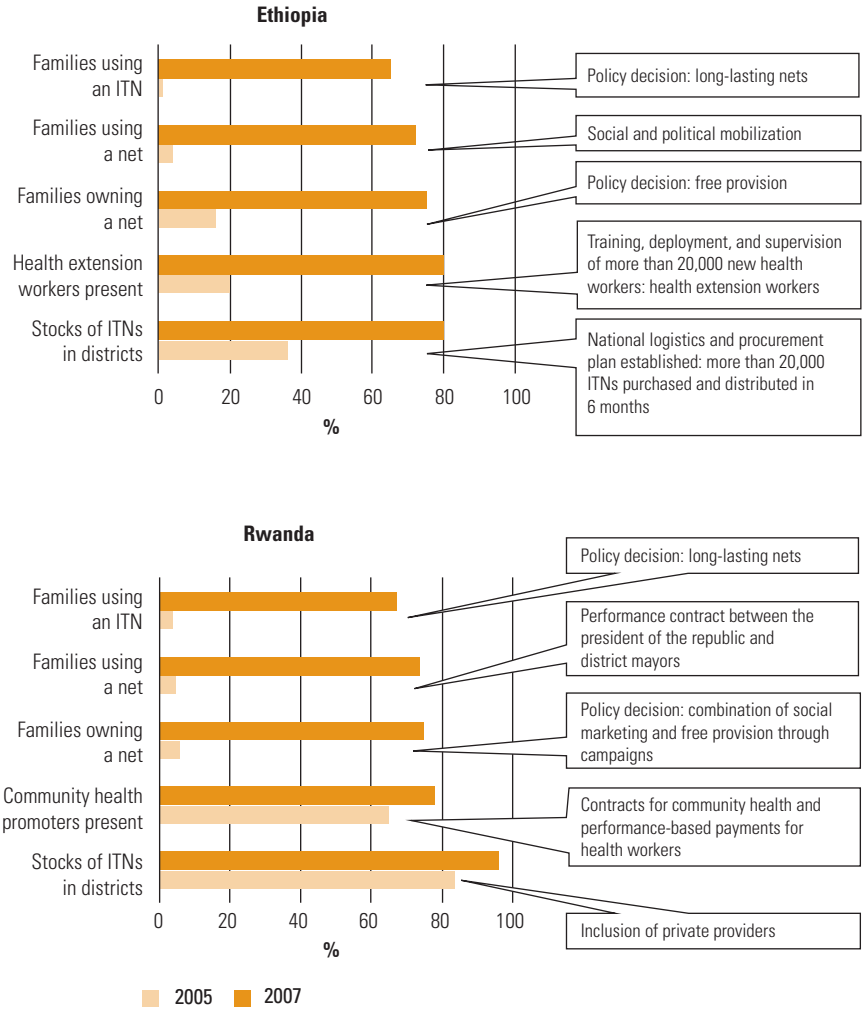
The World Bank aims to complement rather than duplicate the work of the Global Fund and the U.S. government (through the President's Malaria Initiative and the U.S. Agency for International Development), which have traditionally focused much more on procuring commodities than has the Bank. The World Bank has particular strengths in the area of financial transfers from national to subnational budgets in the context of fiscal decentralization, results-based financing, human resources, infrastructure, systems for managing supplies, governance, and monitoring and evaluation including surveillance.

The Booster Program will focus on several targeted activities under this pillar:

1. *Conducting needs assessments during the planning phase of Booster projects to identify bottlenecks in country health systems.* These assessments will be tailored to specific countries and will identify key systemic bottlenecks that are hindering their efforts to scale up their malaria control and other priority health activities. Such assessments, when conducted in Ethiopia and Rwanda led to strengthening critical areas of the health systems, thus leading to a dramatic increase in the intake of malaria interventions (figure 4.2).

2. *Reallocating resources to overcome bottlenecks in health systems.* Once bottlenecks have been identified, resources will need to be found to address them. The World Bank is in a position to provide flexible financing for initiatives that other donors cannot support. This is particularly true in countries where the Booster Project is embedded in a larger health systems project and where at present it is unclear how the different components of the project complement each other and how the investments in improving the health system are affecting health outcomes such as malaria. It is highly likely that the Bank's resources will be needed to fund improvements in M&E (including surveillance) and procurement and

Figure 4.2 Results Achieved by Addressing Systems' Bottlenecks in Ethiopia and Rwanda



Source: Agnès Soucat, personal communication.
Note: ITN, insecticide-treated net.

supply chain management, and the strengthening of district planning and budgeting capacity, governance, and human resources for health. The Booster Program will use a combination of capacity-building efforts; policy dialogue at the global, regional, and national levels; and innovative financing solutions to reduce the obstacles to reducing malaria transmission and achieving priority health outcomes.

3. *Program planning, budgeting, and results-based financing.* The Booster Program will support the expansion and strengthening of subnational planning and budgeting capacity, including support to results-based budgeting and performance-based financing when appropriate. Results-based financing is an innovative financing strategy that can increase the impact of investments in health by providing a financial or in-kind reward conditional upon achievement of agreed-upon performance goals. The strategy is being used in increasingly innovative ways within national health programs as a tool to strengthen delivery systems and accelerate progress to achieve malaria-elimination targets. Importantly, it helps focus government and donor attention on outputs and outcomes—for example, the percentage of children sleeping under a bed net—rather than inputs or processes. This strategy in Rwanda has led to impressive changes in health worker behavior and dramatic improvements in health results, including an increase in the use of LLINs in children under five years of age, from 4 percent to 67 percent between 2005 and 2008.

4. *Supporting the harmonization of donors' efforts.* This will involve reinforcing the relationship between strengthening health systems and implementing disease control programs, which is the International Health Partnership's dual emphasis. This can be done by ensuring that national malaria control plans are included in the policy dialogue on the subject of strengthening health systems overall and by establishing a working group to assess and monitor the needs of the health system.

Monitoring and Evaluation in Phase II

All partners, including the World Bank, agree that M&E needs to be significantly strengthened to track the progress being made by malaria control activities, to assess their impact, and to identify areas where results are lagging behind expectations. Phase II of the Booster Program will include several discrete yet interrelated aspects of M&E work to build on the progress made during Phase I.

Phase II will focus on monitoring and evaluation efforts at three levels, all of which are essential for making progress in controlling malaria: (i) strengthening country-level M&E systems, (ii) conducting M&E in support of global partner–level efforts, and (iii) strengthening the Bank's institutional accountability for results.

Support of Country-Level M&E Systems

To advance malaria control efforts at the country level, M&E plays a critical role in each stage of the progress continuum: (i) rapidly scaling up control interventions, (ii) sustaining coverage, and (iii) moving toward elimination. For each stage, a comprehensive approach to M&E is required. For example, logistics management information systems are critical when planning and executing mass LLIN distribution campaigns to achieve nationwide distribution of nets (sometimes called "catch-up"), and also when distributing LLINs through routine health facility–based services (sometimes called "keep-up"). Tracking these commodities can permit understanding of how well the supply chain management system is functioning, thus avoiding both shortages and excesses of these key tools in the fight. Routinely reported health information, when timely and complete, can help expose trends over time, and facility-based surveys can help reveal the quality of services being provided and whether diagnosis and treatment protocols are being followed appropriately. Household surveys contribute another important piece of information in that they help reveal whether LLIN distributions have translated into their ownership and use by the population and what care-seeking patterns are being engaged for the sick. In areas where progress is made and transmission is interrupted, surveillance systems become particularly important so that epidemics can be effectively detected in a timely manner, permitting an appropriate response to be put into action to contain it. Tracking the quality and effectiveness of insecticides and treatment is another critical element in staying informed about whether tools are still useful. Finally, operations research can contribute to the evidence base regarding the value of various approaches to controlling malaria and permits appropriate programmatic and resource allocation decisions to be made.

The Bank will work with its partners to build capacity in countries to develop effective M&E systems. This will include support for the design of results frameworks for Bank projects, development and implementation of M&E operational plans, and collection and reporting of information needed to inform decision making. The Bank will also work with other donors to better harmonize reporting requirements to reduce the current system of different and complex reporting demands on countries.

Support of M&E of Global Partner–Level Efforts

Decision makers have a vital need to have high-quality information on the outcomes of malaria control investments. The Malaria Scorecard, developed

by the Booster Program during Phase I, has been endorsed by partners in the global malaria control community. At the partners' request, the scorecard was expanded to include all Sub-Saharan African countries, whether supported by the World Bank or not, in order to track joint progress being made across the continent. During Phase II, the Bank and its partners will build on the concept of the Malaria Scorecard in developing a joint malaria database that will contain key information, will be widely accessible and available to all partners and countries, and will be a way for all involved to hold each other accountable for results on the ground. This work is moving forward through a special task force developed under the guidance of the Roll Back Malaria Monitoring and Evaluation Reference Group (MERG).

In addition to cochairing the MERG database task force, the Bank has been asked by the RBM Partnership to exercise one of its comparative advantages in leading an economic task force to gather evidence of both the macro- and microeconomic burden that malaria imposes on countries, as well as the effects that would result from bringing it under control.

Also, as case detection (defined as the accurate diagnosis of malaria cases) and resistance monitoring (of both insecticides and treatment) become increasingly important, Phase II will encourage the establishment of partnerships between countries and institutions so that those that currently have the technical expertise and equipment to do these well can share their knowledge and capacity with others while additional capacity is being built.

Monitoring of Bank-Supported Activities through the Phase II Results Framework

The Booster Program will develop a results framework for Phase II that will set out the overall goal of Phase II as well as the activities associated with each of the five pillars in support of this goal. It will spell out the specific activities that the Bank will be expected to carry out, some explicit assumptions about how the Bank's partners will contribute to achieving these goals, and the expected results (such as changes in health behavior, use of services, and strengthening of health systems) that will help to increase the prevention and treatment of malaria.

Every quarter, the Bank will conduct systematic reviews of all projects in the Booster Program portfolio to identify which countries are progressing well and which countries may need additional operations or technical assistance support. Information on each project will be gathered using a report-

ing template developed and validated by task team leaders and assessed using a progress rating system that was established during Phase I to identify and address challenges. This information will be summarized and serve as inputs to the Bank's Africa Action Plan results monitoring system.

Whereas the program focused primarily on supporting monitoring and evaluation of household-level measurements during Phase I (such as ownership and use of treated nets and care-seeking patterns for sick children), during Phase II the approach to M&E support will build on this to be both more comprehensive and more closely linked to Bank-supported implementation. For example, additional aspects that will be addressed in Bank-supported project areas include logistics management information systems for tracking supplies of malaria control commodities (for example, nets and treatments), product testing for quality assurance (for example, to protect against counterfeit products), monitoring the development of resistance to these critical control tools, and integrated disease surveillance and response systems for outbreaks of key illnesses, to name a few. What will be similar to Phase I is that support for strengthening M&E systems for health, while maintaining a strong focus on malaria, will address this important health problem in the appropriate context of child and maternal health more broadly (for example, by strengthening M&E for the integrated management of childhood illnesses and care packages for pregnant women). Building on the Phase II Results Framework, a comprehensive M&E plan will be developed for supporting country-level and global malaria control efforts and for tracking the Bank's contribution toward this end (see appendix 4 for the current draft of the Phase II Results Framework).

Risks Involved in Phase II Implementation

A number of risks are associated with the implementation of Phase II, as described in table 4.4.

The Cross-Sectoral Agenda

Phase II will exploit the Bank's unique comparative advantage in being able to work across sectors to address the multisectoral dimensions of malaria. The following are four areas in which the Bank will focus its cross-sectoral work:

Table 4.4 Risks Involved in Implementing Phase II

RISK	RISK MITIGATION ACTION
Insufficient country demand for IDA financing for malaria control, because of competing priorities	Ensuring that countries recognize the importance of malaria as a development and health issue
Decreasing commitment from donors and countries to the malaria control agenda	Continuing to keep malaria control as a major focus of country and regional agendas
Targeting of complex and large countries that require greater financial and human resources than are available	Providing task teams with adequate support for successful preparation and implementation of Phase II in those countries Strengthening M&E capacity in those countries to ensure close monitoring of programs
Inadequate harmonization among development partners	Supporting formal collaboration mechanisms like the RBM Harmonization Working Group

Source: Booster Program staff 2008.

- *Agriculture.* This is a critical area because (i) agricultural practices change land use, often increasing mosquito habitats and populations; (ii) the insecticides used for agriculture and malaria control are the same, so it should be possible to rationalize their use to be beneficial for both sectors; and (iii) organized agriculture presents an opportunity to implement public health practices such as controlling malaria for the benefit of workers.
- *Infrastructure.* Millions of dollars in labor productivity are lost when workers in the construction industry become sick from malaria. When large infrastructure projects are being built, workers come from many different places to apply for jobs on the projects, sometimes coming from nonmalarious areas into a very malarious area. If they do not have immunity, they are at high risk of becoming ill from malaria and may even die. Recognizing this, companies like ExxonMobil and Ghana's Anglo Gold Ashanti mines are starting to set up malaria control programs for their employees at work sites in Africa.
- *Education.* Malaria is a major cause of school absenteeism and poor scholastic performance among children and has a negative effect on their ability to learn. Schools are an excellent venue for reaching children with malaria control interventions, which can be integrated into education programs.

- *Climate change.* In recent years, there has been a resurgence of malaria in areas where the disease was once eliminated or under control. As climates change and temperatures and humidity increase, mosquitoes are proliferating in these more hospitable environments. If mosquitoes are not controlled, the resurgence of malaria will affect many regions in the world, especially Sub-Saharan Africa. In this context, the MIRT has taken a lead role in drafting a note on the implications of climate change on malaria, as input into the Africa Region climate change strategy.

In this context, the MIRT has already begun discussions with the Africa Region Sustainable Development Unit to develop an operational plan to move forward on this agenda. The MIRT will be meeting with other sectors to explore areas of joint collaboration.

Analytical Work

The MIRT will be initiating some essential analytical work on behalf of the RBM Partnership during Phase II. This work will cover the following topics:

- The economic impact of malaria control
- The economic rationale and financing models for malaria control in Africa
- The potential for the private sector and community agents to deliver diagnostic and treatment services
- The equitable delivery of malaria control interventions
- Government stewardship of consumer protection and pharmacovigilance (the pharmacological science relating to the detection, assessment, understanding, and prevention of adverse effects, particularly long-term and short-term side effects of medicines)

How Phase II Can Affect Malaria Control and the Costs of the Bank's Disengaging from the Fight

Between 2005 and 2008, the Bank has established itself as one of the three largest contributors to the fight against malaria in Africa. In addition to providing financial and technical resources, the Bank has taken the intellectual lead in

addressing important issues such as equitable access to treatment, innovative financing, and effective cross-border and cross-sector collaboration. During Phase II of the Booster Program, the Bank will be maximizing its comparative advantages. By agreeing to take the leadership role outlined in this document, the Bank will be helping to ensure that the burden of malaria dramatically decreases and that Africa takes critical steps toward eliminating it altogether.

Costs of Bank Inaction

Were the Bank to withdraw from its commitment to eliminating malaria in Africa, the negative impact that this would have on the fight against the disease would far exceed the simple dollar value of the grants and loans proposed for Phase II. Without these grants and loans, clearly the SUFI strategy would be significantly undermined in a number of countries, and morbidity and mortality would remain high for an unnecessarily prolonged period of time. However, the withdrawal of the Bank from the fight against malaria would have several other subtle and pervasive negative consequences as well.

The World Bank is the donor with the greatest comparative advantage and track record in fostering and financing regional and cross-border programs and collaboration; thus, its failure to continue playing this role in the fight against malaria would greatly inhibit Africa in its quest to completely eliminate malaria.

The World Bank has been the lead financier of malaria control in the Democratic Republic of Congo and Nigeria, which together account for 50 percent of the malaria burden on the African continent. If the Bank were to discontinue this support, rather than augment it as anticipated by countries and partners and proposed under Phase II of the Booster Program, other donors that have been reluctant to become involved on a large scale in these countries would likely be dissuaded from extending their support. Instead of leading the battle in these high-need, high-burden countries, the Bank would be sounding a retreat.

The emphasis that the Bank is putting on increasing access to safe, effective, and quality-assured malaria treatment in the private sector and communities is consistent with its leadership in the creation of the Affordable Medicines Facility for malaria (AMFm). Without this emphasis, treatment coverage targets will not be met, coverage will continue to be inequitable, the effectiveness and perhaps acceptability of the AMFm will be compromised, and the number of cases of drug resistance will likely increase.

Though the World Bank is only one among several major contributors to malaria control in Africa, it is the only one that provides resources directly to governments, not only for malaria control but also for improving health system performance more generally. If the Bank were not engaged in the malaria control effort, it is unlikely that health systems in Africa would be strengthened in a systematic, results-oriented way.

During Phase I of the Booster Program, flexibility of financing was found to be a comparative advantage of the World Bank. In the context of the RBM Partnership, this flexibility has helped to resolve unexpected challenges and has saved several critical and time-dependent activities. Without the Bank, the resilience of the RBM Partnership at the country level would be compromised, and this could lead to damaging shortages of drugs and LLINs in a number of countries.

The Implications of the Bank's Not Engaging

The Bank's clients and the international community have come to expect the Bank's commitment to fighting malaria in Africa at the highest institutional level and believe that its engagement is critical to achieving success. Demand from clients for IDA funding for malaria control activities remains high, the Bank's leadership and collaboration with its partners have increased, and the critics of the Bank's involvement in the malaria field have fallen silent. If, at this juncture, the Bank were to choose to withdraw from the effort to roll back malaria in Africa, its clients, partners, and critics would question both its credibility and its leadership in its commitment not only to malaria control but also to achieving the Millennium Development Goals.

Furthermore, malaria control is so entwined with the goals, strategies, and policies of the World Bank in the Africa Region that withdrawing would undermine its Africa Action Plan (AAP), its Health, Nutrition, and Population (HNP) Strategy, its Regional Integration Strategy, its International Health Partnership (IHP), and its evolving strategy for mitigating the impact of climate change in Africa.

The Bank's Potential Contribution in Phase II to the Fight Against Malaria

As stated in the Phase II Results Framework (see appendix 4), the overall goal of the Booster Program for Malaria Control in Africa is that, by the end

of Phase II, malaria will no longer be a major public health problem in areas where the Booster Program is operating.

Although simply contributing to this dramatic and realizable achievement warrants the full engagement of the Bank, the potential legacy of the Booster Program is more far-reaching. First, the Bank will be helping to decrease maternal mortality, reduce anemia, increase the birthweight of babies, and decrease adult morbidity. This will reduce the burden that malaria currently puts on health systems while also resulting in better school and work attendance, as well as improving school performance and increasing labor and household productivity. Malaria control is also expected to have positive externalities in other sectors, such as education, agriculture, trade, infrastructure, and tourism, by removing the disease as an obstacle to sector-specific and broader development objectives. The potential impact of the SUFI agenda was summed up in a report released in Davos in 2008, as follows: "It is estimated that in five years this will result in saving 3.5 million lives, preventing 672 million cases of malaria, and freeing up 427,000 hospital beds for other purposes. It will result in savings of over $30 billion to African economies" (McKinsey and Company 2008).

By investing in nationally managed malaria control programs and facilitating regional collaboration, the Bank can expect to contribute to strengthening (i) the capacity of local health teams to generate and use local data in their management, planning, and budgeting; (ii) the capacity of national health and regulatory authorities to enforce regulations governing the quality of drugs and treatment services in the private sector; and (iii) the capacity of country-level institutions to implement regional and cross-border initiatives. The proposed emphasis of Phase II on regional and cross-border work and on the scaling up of malaria control in high-need, high-burden countries will also give the Bank the chance to set Africa on the path to eliminating malaria entirely.

Phase II will provide many significant opportunities for innovation in the areas of malaria control and public health, including community-based diagnosis and treatment, public-private partnerships in pharmaceutical quality assurance, and cross-border disease surveillance and epidemic response. In the case of these and other interventions, the World Bank will identify and document best practices, and the Booster Program will test hypotheses and different implementation models.

CHAPTER 5

Operational Implications for the Bank

The Bank developed Phase I of the Booster Program very rapidly to back up its promises with action and to get malaria control back on the development map. Indeed, following the launch of the Booster Program in 2005, it was critical for the Bank's Africa region to demonstrate its commitment to the fight against malaria in Africa, in sharp contrast with the Bank's ineffective actions prior to 2005. Phase I was also developed in a context where many governments were still trying to come up with one coordinated action plan for malaria control at the country level.

Defining the Bank's Commitment

The design of Phase II of the Booster Program is taking place in a different context. First, development organizations and governments have agreed that the African continent should be considered as an island and that they must now take bold moves toward eliminating and eradicating malaria in Africa (with the understanding that complete eradication will take longer and will depend on the development of new tools and technology). Second, they have agreed on a front-loaded effort to break the chain of transmission rapidly. Third, there is strong consensus among partners on the need to base their coordinated and harmonized approaches on national country plans. Finally, the Bank recognizes that its development partners and client countries expect the Bank to use its comparative advantages to complement the actions of other partners in pursuing the agreed-upon goal of eliminating malaria.

During the series of consultations about Phase II, the Bank's development partners and client countries highlighted key areas in which they feel

that the Bank has a comparative advantage in supporting malaria control activities in Africa.

First, it can leverage additional resources from other partners while providing flexible funding. This has been seen in the context of Phase I, during which, for example, the Bank has engaged the Russian Federation in the fight against malaria in Zambia and Mozambique by setting up a US$20 million trust fund that is cofinancing malaria control operations in both countries. The flexibility of the Bank's funding mechanisms is another advantage. For example, the International Development Association (IDA) has been able to fill unexpected gaps in the funding of malaria control activities in both Ethiopia and Tanzania. Also, the Bank has been highly responsive to country demand, as when it created Nigeria's Malaria Control Booster Program, the largest malaria control effort in the country, in direct response to local demand.

Second, as a key participant in high-level policy dialogue with governments, the Bank can address malaria as a development as well as a health issue. The Bank is uniquely positioned to consider malaria within a macroeconomic framework and to ensure that malaria is taken into account in the Bank's poverty reduction strategies, medium-term expenditure frameworks, and other mechanisms of national economic and fiscal policy.

Third, the Bank has vast experience in implementing large-scale, region-wide programs. No other institution currently involved in malaria control has the mandate, capacity, or leveraging power in this respect. The Bank is also uniquely placed to take a multisectoral approach to malaria control, which will be a crucial element in the attempt to achieve the Abuja targets.

Finally, the Bank's ability and experience in convening its development partners to address common issues at both the country and global levels is particularly valuable and has been very evident and helpful during Phase I of the Booster Program. Given the expanded vision of and work program for Phase II, this comparative advantage will continue to be essential.

Operational Implications

To ensure the successful implementation of Phase II, the Bank will need to demonstrate its commitment to malaria control in Africa, convincing high-level policy makers in all channels of the policy dialogue of the need for a comprehensive response to malaria.

The Bank should also play a leading role in devising and implementing regional and cross-border strategies and mobilizing—through IDA and any new partners—the substantial resources that will be needed to implement them. It is essential that the Bank's Africa Regional Integration Unit and its country directors work closely together to carry this forward.

The Bank will need to help mobilize the resources that current Booster countries need to (i) expand their activities nationwide to increase their impact, and (ii) strengthen their health systems to sustain these activities. The Bank will also need to provide the necessary support to ensure that malaria control efforts are scaled up nationwide in the two countries responsible for 50 percent of the malaria burden in Africa, Nigeria and the Democratic Republic of Congo.

Implementing Phase II will require the Bank to put in place a framework for action to sustain malaria control efforts in current Booster countries.

The Bank can use its experience in working with its current development partners to bring new partners on board in the fight against malaria. It should also maintain and strengthen its links with its existing development partners to coordinate every aspect of the fight against malaria. This includes becoming more actively involved with the International Health Partnership (IHP) agenda to ensure that countries allocate enough resources to malaria control in their national health plans to yield significant reductions in under-five mortality, which is a major anticipated outcome of the IHP's work.

Another important operational focus for the Bank must continue to be sustaining monitoring and evaluation and promoting greater collective accountability among donors and countries for ensuring that investments yield positive results.

Finally, the Bank must continue to support national capacity building, particularly in the areas of procurement and supply chain management. Also important is developing and strengthening the capacity of regional bodies responsible for drug resistance surveillance and monitoring, epidemiological surveillance, and preparedness for epidemics.

Supporting the Malaria Control Effort during Phase II (2008–11)

Despite significant recent increases in the resources made available for malaria control worldwide, those resources will not be enough in light of

the projected needs (see figure 3.3). Significant IDA resources will still be needed, particularly to fund the Bank's portfolio in Africa and in high-burden countries, not only to fill gaps but to allow the Bank to play to its comparative advantages and leverage resources from other sources. Given the need to assist some Booster countries in sustaining their progress and making further gains as well as the need to meet the unpredictable demand from other countries, it is estimated that at least US$1.1 billion (including US$500 million for the regional and cross-border pillar) will be needed from IDA-15.

Implications for Staffing and Budgeting

The design of Phase II of the Booster Program, as well as the implications for the Bank discussed above, mean a very different and more labor-intensive program of work than in Phase I. Phase II will be more complex, will involve more implementation challenges and more ambitious RBM objectives, and will require key partners and countries to be more accountable. Phase II will continue to focus strongly on results and to strengthen capacity at both the country and the regional levels. In Phase II, the Malaria Implementation Resource Team (MIRT) will play a direct role in developing and managing the regional and cross-border pillar and in coordinating the provision of increased resources to Nigeria and the Democratic Republic of Congo. The Africa Region will also be strengthening its quality assurance program in line with the increased accountability required in Phase II.

At the same time, the MIRT will continue to perform other key functions in line with its mandates:

- Providing technical and implementation support to 19 Booster countries that are currently implementing or preparing projects
- Forging new partnerships both outside and within the Bank to leverage IDA resources, as it did with the Russian Federation during Phase I of the program
- Developing a strong multisectoral program in line with the design of Phase II

- Encouraging the sharing of knowledge among countries regarding successes and lessons learned
- Strongly emphasizing communications and outreach to ensure that both internal and external audiences are aware of the progress being made by the Bank on malaria control within the RBM Partnership

The Africa Region will need to provide the MIRT with the human and financial resources to prepare and implement Phase II as well as to maintain ongoing Booster activities. The team will need the resources to (i) pay for short-term and long-term technical assistance as needed, (ii) develop and implement the new program of work spelled out in this document, (iii) continue supporting the ongoing Booster Programs, (iv) play a leading role within the RBM Partnership in areas where the Bank clearly has a comparative advantage, and (v) implement a strong communications and outreach program for internal and external audiences.

Implementing this ambitious program will also require greater involvement, contributions, and support from the Bank's task team leaders and from staff in other sectors and operational departments (such as the Bank's Operations Policy and Country Services, the World Bank Institute, and the International Finance Corporation). The MIRT will also capitalize on existing programs such as those dealing with onchocerciasis (commonly known as river blindness), HIV/AIDS, tuberculosis, and nutrition and will build on country-level channels and resources that already exist. Finally, the MIRT will draw on the expertise of the Bank's partners, where applicable, to leverage technical resources from the Bank.

CHAPTER 6

Conclusion

As this strategy is being finalized, the international community is gearing up for a major assault on one of the major public health challenges in the world—malaria in Africa. Largely left out of the effort to eradicate malaria in the mid–20th century, African countries have decided that they have had enough of this perennial drain on their families, health systems, and economies. Along with their development partners, African governments have realized that failing to eliminate malaria as a public health threat will devour resources for decades if not centuries to come. By that time, the eradication of the disease, already difficult for some to imagine, would truly be unattainable.

These African nations have asked the World Bank to make available to them over the next three years a substantial share of the resources required to reach the targets that they and the international community have set. If they are able to scale up their existing malaria control activities quickly, this will enable many of them to reach the Abuja targets by 2010. Sustained funding and political commitment will help them to reach Millennium Development Goals 4 through 6 (reducing child mortality by two-thirds; reducing the maternal mortality ratio by three-quarters; and combating HIV/AIDS, malaria, and other diseases, including halting and beginning to reverse the incidence of malaria) by 2015. Most of the funding that they are requesting from the World Bank is in the form of International Development Association (IDA) loans, not grants, which is evidence of their ownership of the malaria problem and of its solution. With that funding, the World Bank will be providing these countries with the technical support, analytical capacity, and knowledge for which it is well known and respected.

Today, the estimated funding gap is US$2 billion per year. More than doubling the IDA contribution to US$1.1 billion over three years will shrink that gap significantly. Given the record replenishment that occurred in IDA-15, the World Bank is well positioned to deliver on this commitment. As a result, the Bank, its member states, and the families devastated by malaria will see this disease fade into history. No longer will it kill 3,000 children per day. No longer will it be a major cause of stillbirths, maternal deaths, and pregnancy complications. African nations and families, while remaining vigilant against the disease and the mosquitoes that transmit it, will be much healthier and much more productive. They will also benefit from health systems that no longer have to shoulder the burden of malaria and thus will be better able to address the many other health problems that Africa needs to tackle.

The World Bank has been called upon to do its part in reaching the goal of eliminating malaria. Phase II of the Booster Program for Malaria Control in Africa is an emphatic and affirmative response to that call. Because the Bank has consulted intensively and widely with all of its partners regarding the design of Phase II, the strategy that has emerged has the strong support of the countries affected by malaria as well as of international leaders in malaria control and prevention. Phase II builds on what client countries, the Bank, and its partners have started, achieved, and learned in Phase I, and its full implementation will maximize the returns on the investments that have already been made. With a strengthened Booster Program committed to timely and efficient implementation of Phase II, the prospects for success are excellent.

APPENDIX 1

Malaria Scorecard (Results Monitoring Matrix)

The Malaria Scorecard was developed in February 2006 as a high-level tool to document progress and identify areas where results were lagging behind expectations and financing. Given the increasing financial investment supporting the malaria control effort, all stakeholders agree about the importance of tracking the translation of these resources into concrete results. After sharing the scorecard with other partners and countries through the RBM Partnership, the list of countries was expanded to include all of Sub-Saharan Africa in response to requests.

Key malaria control intervention coverage progress is reported for results from national surveys, unless otherwise noted. There is no single baseline year for all countries; rather, the baseline is established on a country-by-country basis depending on availability of national estimates.

The indicator related to IRS refers to sub-national coverage data reported regularly by programs. The M & E Reference Group of the RBM Partnership is in the process of finalizing a standardized indicator for reporting at the national level. This will likely include a national estimate of the percentage of households protected by *either* an ITN or IRS within the previous 12 months.

Work is ongoing in partnership to help keep high-quality data available. Particularly challenging has been harmonizing reporting of financial commitments and disbursements of all financing partners across different fiscal years. In collaboration with the VOICES project of Johns Hopkins University, work is ongoing to transform the Scorecard into a joint malaria database (Malaria Warehouse) to which partners and countries can contribute and retrieve relevant data as needed. The joint database will permit both regularly reported data and sub-national data to be recorded and extracted for local decision-making purposes.

The MIRT would like to thank Steven Phillips, Medical Director, ExxonMobil Corporation, for supporting this effort and for facilitating a generous grant from the ExxonMobil Foundation that has helped advance this work.

Results Monitoring Matrix/Malaria Scorecard: Angola to Kenya

(Data as of September 5, 2008)

	COMMITTED FINANCES FOR MALARIA CONTROL JULY 2005–JUNE 2010[1] (US$ MILLIONS)												
	COUNTRY FUNDS FOR MALARIA[2]		WBG[3]			GLOBAL FUND[4]		USG (PMI/USAID)[5]		OTHER EXTERNAL PARTNERS[6]		TOTAL	
COUNTRY	COMMIT.	% DISB.	COMMIT.	% DISB.	TOTAL PROJECT % DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.
Angola	16.0					23.8	99%	27.6	100%	1.9	20%	69.3	
Benin	11.7		31.0	46%	46%	26.3	31%	17.7	100%	7.4		94.1	
Botswana													
Burkina Faso			12.0	26%	34%	42.8	27%			23.9		78.7	
Burundi	3.9					28.4	31%	0.5	100%			32.8	
Cameroon	1.8					51.7	40%			1.2	10%	54.7	
Cape Verde													
CAR	0.4					14.8	58%					15.2	
Chad	0.2									0.2	5%	0.4	
Comoros						1.9	84%					1.9	
Congo	5.0		4.5	0%	0%							9.5	
Côte d'Ivoire	20.9					19.9	22%					40.8	
DR Congo	10.0		43.0	6%	25%	48.2	92%	5.3	100%	7.9		114.4	
Djibouti	1.4					3.9	39%			1.3	60%	6.6	
Eq. Guinea	9.0					23.1	43%					32.1	
Eritrea	0.7		2.0	75%	59%	20.2	29%	0.8	100%			23.7	
Ethiopia	31.6		33.7	54%	83%	182.0	53%	24.4	100%	18.4		290.1	
Gabon	3.3					26.3	44%					29.6	
Gambia	2.2					31.0	48%					33.2	
Ghana	7.7		10.0	27%	20%	36.3	90%	19.8	100%	1.4	60%	75.3	
Guinea	6.5		8.1	0%	0%	32.5	7%	0.3	100%	2.2	60%	49.6	
Guinea-Bissau	0.5					16.2	12%			0.8	40%	17.5	
Kenya	193.2		6.0	0%	0%	185.2	41%	26.5	100%	103.0		513.9	
SubTotal	**325.8**		**150.3**			**814.5**		**123.0**		**169.5**		**1,583.1**	

Notes:

[1] Figures represent funds committed to date.

[2] Country funds for malaria control (excluding external funds) as indicated in Global Fund applications, compiled by the Roll Back Malaria Partnership.

[3] "Total Project Percentage Disbursed" refers to the disbursement rate of the World Bank project in which the malaria Booster component is embedded; for Benin and Nigeria, the entire project amount supports malaria control efforts. Disbursement information as available through the World Bank Operations Portal, accessed 06/15/08. Actual engagements may be higher; disbursement figures in the Operations Portal do not reflect financial engagements, which may only show as disbursed after the entire contract of goods and/or services has been delivered/provided. Disbursement rates reported for DRC, Ethiopia and Kenya reflect an average rate across multiple funding mechanisms and/or multiple projects.

[4] Most recent figures for signed grant agreements from the Global Fund website (Progress Report - Grants and Disbursements in detail, accessed 09/05/08).

[5] Figures represent congressional appropriations and agency obligations for USG FY05 through FY08. First round PMI countries since USG FY06 are: Angola, Tanzania and Uganda. Second Round PMI countries since USG FY07 are: Malawi, Mozambique, Rwanda and Senegal. Third Round PMI countries since FY08 are: Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Mali, and Zambia.

[6] Other donor data may be incomplete, including disbursement information.

PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[7] : PERCENTAGES									IMPACT INDICATORS			
60% ITN USE BY CHILDREN UNDER FIVE		60% OF CHILDREN UNDER FIVE WITH FEVER ACCESS EFFECTIVE ANTI-MALARIAL WITHIN 24 HOURS[8]			60% OF PREGNANT WOMEN RECEIVE IPT (2 DOSES)		% OF ELIGIBLE UNITS UP-TO-DATE FOR SPRAYING[9]		HALVE MALARIA MORTALITY BY 2010[10]		REDUCE ALL-CAUSE CHILD MORTALITY[11]	
BASELINE	MOST RECENT DATA	BASELINE ANY TX	BASELINE	MOST RECENT DATA	BASELINE	MOST RECENT DATA	BASELINE	MOST RECENT DATA	PER 100,000 2000	PER 100,000 MOST RECENT DATA	PER 1,000 LIVE BIRTHS 2000	PER 1,000 LIVE BIRTHS 2005
2.3%	17.7%	18.2%	1.5%		2.8%				354		260	260
5.0%	20.1%	42.0%	3.5%		3.0%				177		160	150
									15		101	120
6.5%	9.6%	41.0%	< 1%		< 1%				292		196	191
1.3%	8.3%	19.1%	< 3%						143		190	190
< 1%	13.1%	38.2%	< 2%		5.8%				108		151	149
									22		42	35
1.5%	15.1%	41.6%	< 3%						137		193	193
1.0%									207		205	208
9.3%									80		84	71
6.1%		22.1%	< 3%						78		108	108
1.1%	3.0%	25.9%	< 3%		8.3%				76		188	195
< 1%	5.8%	17.3%	< 1%		5.1%				224		205	205
1.3%		2.9%	< 1%						119		147	133
1.0%									152		200	205
4.2%	37.3%	7.5%			NR		96.2%	94.5%	74		97	78
1.5%	43.8%	4.8%			NR				198		176	164
									80		91	91
14.5%	49.0%	52.4%	< 1%		32.5%				52		142	137
4.5%	21.8%	48.3%	< 4%		< 1%	27.5%			70		112	112
< 1%		13.9%	< 1%		2.9%				200		175	150
7.4%	39.0%	27.2%	< 1%		7.4%				150		215	200
2.9%	4.6%	11.1%	< 1%		3.9%				63		117	120

[7] Sources for these data and estimations of their numerical equivalents are found in the Program Data Supplement (B).

[8] Figures reported here refer to access to artemisinin-based combination therapies. "Baseline any tx" refers to treatment with any anti-malarial with 24 hours of the onset of symptoms.

[9] Presently this indicator refers to subnational data. This will soon be replaced by the following measured at the national level: Percentage of households protected by either at least one ITN or IRS within the past 12 months.

[10] Source: United Nations Statistics Division (WHO estimates).
http://unstats.un.org/unsd/cdb/cdb_series_xrxx.asp?series_code=30001 accessed 08/22/07

[11] Source: United Nations Statistics Division. http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=561 accessed 08/22/07

Legend:
IDA: International Development Association.
IPT: Intermittent Preventive Treatment.
IRS: Indoor Residual Spraying.
ITN: Insecticide-treated bed net.
NA: Data not available.
NR: Not relevant, i.e. not government policy.
PMI: U.S. President's Malaria Initiative.
TBD: To be determined.
Tx: Treatment with any anti-malarial.
USAID: U.S. Agency for International Development.
USG: United States Government.
WBG: World Bank Group.

Results Monitoring Matrix/Malaria Scorecard: Lesotho to Zimbabwe

(Data as of September 5, 2008)

	COMMITTED FINANCES FOR MALARIA CONTROL JULY 2005–JUNE 2010[1] (US$ MILLIONS)												
	COUNTRY FUNDS FOR MALARIA[2]		WBG[3]			GLOBAL FUND[4]		USG (PMI/USAID)[5]		OTHER EXTERNAL PARTNERS[6]		TOTAL	
COUNTRY	COMMIT.	% DISB.	COMMIT.	% DISB.	TOTAL PROJECT % DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.	COMMIT.	% DISB.
Lesotho													
Liberia	0.3					43.0	22%	12.9	100%	0.5		56.7	
Madagascar	2.2					41.1	87%	21.4	100%	0.7	40%	65.4	
Malawi	114.3		5.0	0%	0%	37.6	48%	22.1	100%	10.8		189.8	
Mali	0.7		11.3	0%	0%	27.8	19%	19.8	100%	9.4		69.0	
Mauritania	0.7		11.3	0%	0%	16.4	16%			1.9		30.3	
Mozambique	8.1					58.2	39%	28.2	100%	56.1		150.7	
Namibia	44.5					18.9	47%					63.4	
Niger	5.6		10.0	7%	24%	67.4	43%			7.0		90.0	
Nigeria	33.0		180.0	16%	16%	82.6	62%	5.6	100%	15.8		317.0	
Rwanda	5.0					70.8	54%	19.4	100%			95.1	
São Tomé/Principe	0.2					2.6	67%					2.8	
Senegal			16.6	16%	59%	94.8	24%	20.7	100%	11.4		143.5	
Sierra Leone	1.5					12.8	38%			2.5		16.8	
Somalia						34.4	36%					34.4	
South Africa													
Sudan	37.3		17.7	41%	48%	45.1	81%	4.5	100%	7.3		111.9	
Swaziland						1.2	68%					1.2	
Tanzania			25.0	0%	0%	151.4	48%	35.0	100%	3.8		215.2	
Togo	14.3					24.7	48%					39.0	
Uganda	23.5					139.0	51%	34.3	100%	29.0		225.8	
Zambia	31.5		28.0	60%	60%	47.0	61%	26.6	100%	38.4		171.5	
Zimbabwe	9.4					31.8	31%					41.2	
SubTotal	**332.0**		**304.9**			**1048.6**		**250.4**		**194.8**		**2130.7**	

Notes:

[1] Figures represent funds committed to date.

[2] Country funds for malaria control (excluding external funds) as indicated in Global Fund applications, compiled by the Roll Back Malaria Partnership.

[3] "Total Project Percentage Disbursed" refers to the disbursement rate of the World Bank project in which the malaria Booster component is embedded; for Zambia, the entire project amount supports malaria control efforts. Disbursement information as available through the World Bank Operations Portal, accessed 06/15/08. Actual engagements may be higher; disbursement figures in the Operations Portal do not reflect financial engagements, which may only show as disbursed after the entire contract of goods and/or services has been delivered/provided. Disbursement rates reported for Senegal, Sudan, and Zambia reflect an average rate across multiple funding mechanisms and/or multiple projects.

[4] Most recent figures for signed grant agreements from the Global Fund website (Progress Report - Grants and Disbursements in detail, accessed 09/05/08).

[5] Figures represent congressional appropriations and agency obligations for USG FY05 through FY08. First round PMI countries since USG FY06 are: Angola, Tanzania and Uganda. Second Round PMI countries since USG FY07 are: Malawi, Mozambique, Rwanda and Senegal. Third Round PMI countries since FY08 are: Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Mali, and Zambia.

[6] Other donor data may be incomplete, including disbursement information.

PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[7] : PERCENTAGES										IMPACT INDICATORS			
	60% ITN USE BY CHILDREN UNDER FIVE		60% OF CHILDREN UNDER FIVE WITH FEVER ACCESS EFFECTIVE ANTI-MALARIAL WITHIN 24 HOURS[8]			60% OF PREGNANT WOMEN RECEIVE IPT (2 DOSES)		% OF ELIGIBLE UNITS UP-TO-DATE FOR SPRAYING[9]		HALVE MALARIA MORTALITY BY 2010[10]		REDUCE ALL-CAUSE CHILD MORTALITY[11]	
	BASELINE	MOST RECENT DATA	BASELINE ANY TX	BASELINE	MOST RECENT DATA	BASELINE	MOST RECENT DATA	BASELINE	MOST RECENT DATA	PER 100,000 2000	PER 100,000 MOST RECENT DATA	PER 1,000 LIVE BIRTHS 2000	PER 1,000 LIVE BIRTHS 2005
										84		108	132
	2.6%			3.2%		4.3%				201		235	235
	< 1%									184		137	119
	14.8%	24.7%	21.1%	< 1%		29.3%	46.7%			275		155	125
	27.1%		14.8%	< 1%		11.2%				454		224	218
	2.1%		11.8%							108		125	125
	9.7%		8.3%							232		178	145
	10.5%		2.9%	< 1%		10.6%				52		69	62
	1.0%	7.4%	24.9%	< 1%		<1%				469		270	256
	1.2%	3.6%	24.9%			1.1%	8.3%			141		207	194
	5.0%	13.0%	2.5%	< 1%		<1%				200		203	203
	22.5%	41.7%	17.0%	< 6%						80		118	118
	7.1%	16.4%	10.9%	3.1%		10.1%	51.2%			72		139	136
	1.5%	5.3%	45.0%	< 1%		1.8%				312		286	282
	2.6%	11.4%	2.9%	< 1%		<1%				81		225	225
										0		63	68
	1.9%		50.2%							70		97	90
	1.0%	1.0%	< 1%			<1%				0		142	160
	2.1%	25.7%	34.3%			21.7%	57.4%			130		141	122
	2.0%	38.4%	37.5%	< 1%		18.1%				47		142	139
	< 1%	9.7%	28.9%			17.6%				152		145	136
	6.5%	22.8%	37.0%	12.7%		61.9%				141		182	182
	2.9%		3.4%			6.8%				1		117	132

[7] Sources for these data and estimations of their numerical equivalents are found in the Program Data Supplement (B).

[8] Figures reported here refer to access to artemisinin-based combination therapies. "Baseline any tx" refers to treatment with any anti-malarial with 24 hours of the onset of symptoms.

[9] Presently this indicator refers to subnational data. This will soon be replaced by the following measured at the national level: Percentage of households protected by either at least one ITN or IRS within the past 12 months.

[10] Source: United Nations Statistics Division (WHO estimates).
http://unstats.un.org/unsd/cdb/cdb_series_xrxx.asp?series_code=30001 accessed 08/22/07

[11] Source: United Nations Statistics Division.
http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=561 accessed 08/22/07

Legend:
IDA: International Development Association.
IPT: Intermittent Preventive Treatment.
IRS: Indoor Residual Spraying.
ITN: Insecticide-treated bed net.
NA: Data not available.
NR: Not relevant, i.e. not government policy.
PMI: U.S. President's Malaria Initiative.
TBD: To be determined.
Tx: Treatment with any anti-malarial.
USAID: U.S. Agency for International Development.
USG: United States Government.
WBG: World Bank Group.

Malaria Scorecard Supplement A Financial Data: Angola to Kenya

(Data as of September 5, 2008)

	COMMITTED FINANCES FOR MALARIA CONTROL JULY 2006–JUNE 2010[1] (US$ MILLIONS)															
	FY 2008						FY 2009						FY06–FY07	FY10	TOTAL FY06–FY10	
COUNTRY	COUNTRY FUNDS FOR MALARIA[2]	WBG	GF	USG	OTHER EXTERNAL PARTNERS	TOTAL	COUNTRY FUNDS FOR MALARIA[2]	WBG	GF	USG	OTHER EXTERNAL PARTNERS	TOTAL	SUB-TOTAL	SUB-TOTAL	TOTAL	
Angola																
Benin																
Botswana																
Burkina Faso																
Burundi																
Cameroon																
Cape Verde																
CAR																
Chad																
Comoros																
Congo. Rep																
Côte d'Ivoire																
DR Congo																
Djibouti																
Eq. Guinea																
Eritrea																
Ethiopia																
Gabon																
Gambia																
Ghana																
Guinea																
Guinea-Bissau																
Kenya																

Notes:

[1] Annualized committed finances for joint reporting will become available.

[2] Country funds for malaria, excluding all external funds.

[3] Figures computed by WHO to assure comparability, as reported in WHO World Statistics Report 2008. NB: Health expenditure data reported in The World Bank Group WDI 2008 is obtained from WHO. Per capita figures are expressed in US dollars at an average exchange rate.

[4] External resources for health are funds or services in kind that are provided by entities not part of the country in question. The resources may come from international organizations, other countries through bilateral arrangements, or foreign nongovernmental organizations. These resources are part of "total health expenditure." Some of these resources are included in "government expenditure on health" as some external resources are channeled to provide budgetary support.

[5] Calculation by World Bank staff: [external resources for health as % of total health expenditure (*Source:* WHO World Statistics Report 2008)] times [the total expenditure on health (per World Bank staff calculation as noted in 8 below)]. Recalculation from tabular data may result in errors due to rounding.

[6] Government expenditure on health (also commonly called public expenditure on health) consists of recurrent and capital spending from government (central and local) budgets, external borrowings, and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.

[7] Total expenditure on health is the sum of government expenditure on health and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

[8] Calculation by World Bank staff: [total expenditure on health as % of GDP (*Source:* WHO World Statistics Report 2008)] times [GDP (*Source:* World Bank Group WDI 2008)].

	HEALTH EXPENDITURE INFORMATION[3] (2005)					
	EXTERNAL RESOURCES FOR HEALTH[4]		GOVERNMENT EXPENDITURE ON HEALTH[6]		TOTAL EXPENDITURE ON HEALTH[7]	
	US$[5] (MILLIONS)	AS % OF TOTAL HEALTH EXPENDITURE	PER CAPITA US$	AS % OF TOTAL GENERAL GOV'T EXPENDITURE (ON ALL SECTORS)	PER CAPITA US$	US$[8] (MILLIONS)
	40.3	7.3%	30	4.7%	36	551.4
	45.6	19.7%	15	13.5%	28	231.5
	34.9	4.0%	338	18.2%	431	872.5
	107.3	29.5%	16	18.4%	27	363.6
	13.8	50.9%	1	2.3%	3	27.1
	45.7	5.3%	14	11.0%	49	862.6
	8.5	15.0%	93	13.2%	114	56.3
	20.8	38.5%	5	10.9%	13	54.0
	27.2	12.5%	9	9.5%	22	217.3
	3.9	33.2%	8	8.0%	14	11.6
	5.4	4.7%	15	4.0%	31	115.7
	42.1	6.6%	7	4.2%	34	637.4
	70.4	23.6%	2	7.2%	5	298.4
	14.0	28.6%	46	14.3%	61	48.9
	4.7	3.7%	166	7.0%	211	128.0
	18.1	50.5%	4	4.2%	8	35.9
	228.5	37.9%	4	10.8%	6	602.9
	5.3	1.5%	205	13.9%	276	355.3
	7.0	29.3%	10	11.2%	15	24.0
	172.8	26.0%	10	6.9%	30	664.7
	22.3	12.2%	2	4.7%	21	182.6
	5.0	31.8%	3	4.0%	10	15.7
	152.6	18.1%	11	6.1%	24	842.9

Legend:
GF: Global Fund.
USG: United States Government.
WBG: World Bank Group.

Malaria Scorecard Supplement A Financial Data: Lesotho to Zimbabwe

(Data as of September 5, 2008)

	COMMITTED FINANCES FOR MALARIA CONTROL JULY 2006–JUNE 2010[1] (US$ MILLIONS)															
	FY 2008						FY 2009						FY06–FY07	FY10	TOTAL FY06–FY10	
COUNTRY	COUNTRY FUNDS FOR MALARIA[2]	WBG	GF	USG	OTHER EXTERNAL PARTNERS	TOTAL	COUNTRY FUNDS FOR MALARIA[2]	WBG	GF	USG	OTHER EXTERNAL PARTNERS	TOTAL	SUB-TOTAL	SUB-TOTAL	TOTAL	
Lesotho																
Liberia																
Madagascar																
Malawi																
Mali																
Mauritania																
Mozambique																
Namibia																
Niger																
Nigeria																
Rwanda																
São Tomé/Principe																
Senegal																
Sierra Leone																
Somalia																
South Africa																
Sudan																
Swaziland																
Tanzania																
Togo																
Uganda																
Zambia																
Zimbabwe																

Notes:

[1] Annualized committed finances for joint reporting will become available.

[2] Country funds for malaria, excluding all external funds.

[3] Figures computed by WHO to assure comparability, as reported in WHO World Statistics Report 2008. NB: Health expenditure data reported in The World Bank Group WDI 2008 is obtained from WHO. Per capita figures are expressed in US dollars at an average exchange rate.

[4] External resources for health are funds or services in kind that are provided by entities not part of the country in question. The resources may come from international organizations, other countries through bilateral arrangements, or foreign nongovernmental organizations. These resources are part of "total health expenditure." Some of these resources are included in "government expenditure on health" as some external resources are channeled to provide budgetary support.

[5] Calculation by World Bank staff: [external resources for health as % of total health expenditure (*Source:* WHO World Statistics Report 2008)] times [the total expenditure on health (per World Bank staff calculation as noted in 8 below)]. Recalculation from tabular data may result in errors due to rounding.

[6] Government expenditure on health (also commonly called public expenditure on health) consists of recurrent and capital spending from government (central and local) budgets, external borrowings, and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.

[7] Total expenditure on health is the sum of government expenditure on health and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

[8] Calculation by World Bank staff: [total expenditure on health as % of GDP (*Source:* WHO World Statistics Report 2008)] times [GDP (*Source:* World Bank Group WDI 2008)].

HEALTH EXPENDITURE INFORMATION[3] (2005)						
	EXTERNAL RESOURCES FOR HEALTH[4]		GOVERNMENT EXPENDITURE ON HEALTH[6]		TOTAL EXPENDITURE ON HEALTH[7]	
	US$[5] (MILLIONS)	AS % OF TOTAL HEALTH EXPENDITURE	PER CAPITA US$	AS % OF TOTAL GENERAL GOV'T EXPENDITURE (ON ALL SECTORS)	PER CAPITA US$	US$[8] (MILLIONS)
	14.3	18.2%	23	6.7%	41	78.4
	14.0	41.2%	7	36.3%	10	33.9
	74.3	46.1%	6	9.6%	9	161.3
	213.2	61.2%	14	16.6%	19	348.3
	48.0	15.6%	14	12.0%	28	307.7
	12.9	26.1%	11	5.0%	17	49.6
	188.1	66.5%	9	12.6%	14	282.9
	44.6	13.5%	108	10.1%	165	330.2
	21.5	17.0%	5	10.2%	9	126.5
	210.1	4.8%	8	3.5%	27	4,377.7
	75.2	43.9%	11	16.9%	19	171.3
	5.6	49.9%	41	12.2%	49	11.2
	61.0	13.0%	12	6.7%	38	469.1
	18.4	41.0%	4	7.8%	8	44.9
	NA	NA	NA	NA	NA	NA
	105.3	0.5%	182	9.9%	437	21,059.1
	70.8	6.8%	11	7.0%	29	1,040.7
	9.2	5.6%	94	10.9%	146	164.6
	200.5	27.8%	9	12.6%	17	721.2
	15.2	13.3%	5	6.9%	18	114.1
	202.5	33.1%	6	10.0%	22	611.7
	166.7	40.5%	17	10.7%	36	411.5
	57.0	20.6%	9	8.9%	21	276.9

Legend:
GF: Global Fund.
NA: Data not available.
USG: United States Government.
WBG: World Bank Group.

Malaria Scorecard Supplement B Program Data: Angola to Kenya

(Data as of September 5, 2008)

COUNTRY	PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[1]: PERCENT, NUMBERS AFFECTED[2] AND INFORMATION SOURCE												
	PERCENT AND NUMBER OF HOUSEHOLDS OWNING AT LEAST ONE ITN[3]						PERCENT AND NUMBER OF UNDER FIVES SLEEPING UNDER ITN						
	BASELINE			MOST RECENT DATA			BASELINE			MOST RECENT DATA			
Angola	27.5%	799,700	MIS 2006				2.3%	61,400	MICS 2001	17.7%	545,700	MIS 2006	
Benin	24.5%	429,500	DHS 2006				5.0%	64,000	MICS 1999	20.1%	299,500	DHS 2006	
Botswana													
Burkina Faso	4.6%	92,800	DHS 2003	23.3%	514,900	MICS 2006	6.5%	156,800	DHS 2003	9.6%	249,600	MICS 2006	
Burundi	7.7%	140,800	MICS 2006				1.3%	15,500	MICS 2000	8.3%	141,200	MICS 2006	
Cameroon	1.4%	50,800	DHS 2004	3.7%	134,500	MICS 2006	< 1%	16,500	DHS 2004	13.1%	371,300	MICS 2006	
Cape Verde													
CAR	16.7%	137,100	MICS 2006				1.5%	9,500	MICS 2000	15.1%	101,300	MICS 2006	
Chad							1.0%	15,800	MICS 2000				
Comoros							9.3%	10,700	MICS 2000				
Congo	8.0%	55,500	DHS 2005				6.1%	35,200	DHS 2005				
Côte d'Ivoire	10.3%	271,000	MICS 2006				1.1%	29,600	MICS 2000	3.0%	85,800	MICS 2006	
DR Congo	9.2%	1,070,800	DHS 2007				< 1%	59,900	MICS 2001	5.8%	710,800	DHS 2007	
Djibouti							1.3%	1,400	MICS 2006				
Eq. Guinea							1.0%	1,000	MICS 2000				
Eritrea	56.9%	536,600	MOH† 2005				4.2%	28,700	DHS 2002	37.3%	290,400	MOH† 2005	
Ethiopia‡	3.4%	537,100	DHS 2005	*65.6%*	*7,425,900*	*MIS 2007*	1.5%	199,000	DHS 2005	*43.8%*	*4,114,400*	*MIS 2007*	
Gabon													
Gambia	49.5%	111,400	MICS 2006				14.5%	33,300	MICS 2000	49.0%	127,900	MICS 2006	
Ghana	3.2%	172,600	DHS 2003	18.7%	1,024,000	MICS 2006	4.5%	139,800	DHS 2003	21.8%	697,100	MICS 2006	
Guinea	< 1%	8,900	DHS 2005				< 1%	9,100	DHS 2005				
Guinea-Bissau	43.6%	95,900	MICS 2006				7.4%	19,700	MICS 2000	39.0%	126,000	MICS 2006	
Kenya	5.9%	454,100	DHS 2003				2.9%	147,700	MICS 2000	4.6%	258,600	DHS 2003	

Notes:

[1] Values in italics refer to findings from sub-national surveys.

[2] Estimates of numbers affected were obtained by applying prevalence estimates obtained in a given year to the relevant population estimate (e.g. children under five) for that year, rounded to the nearest hundred. Population estimates (i.e. total population, under five population and births per year) were obtained from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision, http://esa.un.org/unpp accessed 09/05/08

[3] Estimates of the total number of households were calculated by World Bank staff: [total population estimate for the survey year (see note 2, medium variant projections)] divided by [average household size (*Source:* most recent Demographic and Health Survey (ORC Macro) or Multiple Indicator Cluster Survey (UNICEF))]. An alternative average household size source was used for CAR.

[4] Except where noted otherwise, under five population with fever was calculated by World Bank staff as follows: [prevalence of fever among children under five (from national survey)] times [the under five population (see note 2)] for the year of the survey. Refers to timely access to artemisinin-based combination therapies (ACTs). As many survey reports specify only the percentage of children with fever who accessed ACTs and not the time frame in doing so, "less than" is indicated here with regard to those who may have done so within 24 hours of the onset of symptoms.

[5] Treatment with any anti-malarial (Tx) within 24 hours of the onset of symptoms.

[6] The number of births is used although this slightly underestimates the population of pregnant women. See note 2 for source information.

† National estimate obained by pooling results from surveys conducted in six zones using the Lot Quality Assurance Sampling approach, with technical assistance from the World Bank.

‡ Results from the Malaria Indicator Survey 2007 in Ethiopia are reported here for malarious areas only. Sixty-eight percent of the total population is estimated to live in malarious areas.

PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[1]: PERCENT, NUMBERS AFFECTED[2] AND INFORMATION SOURCE												
	PERCENT AND NUMBER OF UNDER FIVES WITH FEVER ACCESSING EFFECTIVE ANTI-MALARIAL WITHIN 24 HOURS[4]							NUMBER OF PREGNANT WOMEN RECEIVING IPT[6] (2 OR MORE DOSES)				
	BASELINE ANY TX[5]			BASELINE			MOST RECENT DATA	BASELINE			MOST RECENT DATA	
	18.2%	134,100	MIS 2006	1.5%	11,100	MIS 2006		2.8%	23,400	MIS 2006		
	42.0%	179,000	DHS 2006	3.5%	14,900	DHS 2006		3.0%	11,200	DHS 2006		
	41.0%	391,300	MICS 2006	< 1%	< 5,700	MICS 2006		< 1%	< 4,000	MICS 2006		
	19.1%	53,600	MICS 2006	< 3%	< 7,300	MICS 2006						
	38.2%	184,100	MICS 2006	< 2%	< 7,700	MICS 2006		5.8%	37,500	MICS 2006		
	41.6%	60,500	MICS 2006	< 3%	< 3,800	MICS 2006						
	22.1%	29,600	DHS 2005	< 3%	< 3,500	DHS 2005						
	25.9%	192,600	MICS 2006	< 3%	< 19,300	MICS 2006		8.3%	57,300	MICS 2006		
	17.3%	653,000	DHS 2007	< 1%	< 2,300	DHS 2007		5.1%	170,000	DHS 2007		
	2.9%	200	MICS 2006	< 1%	< 100	MICS 2006						
	7.5%	17,400	MOH† 2005					NR				
	4.8%	*100,500*	*MIS 2007*					NR				
	52.4%	10,900	MICS 2006	< 1%	< 100	MICS 2006		32.5%	19,600	MICS 2006		
	48.3%	346,000	MICS 2006	< 4%	< 2,500	MICS 2006		< 1%	< 5,600	DHS 2003	27.5% 193,800	MICS 2006
	13.9%	71,300	DHS 2005	< 1%	< 300	DHS 2005		2.9%	11,000	DHS 2005		
	27.2%	11,900	MICS 2006	< 1%	< 100	MICS 2006		7.4%	6,500	MICS 2006		
	11.1%	259,500	DHS 2003	< 1%	< 1,400	DHS 2003		3.9%	55,400	DHS 2003		

Legend:
DHS: Demographic and Health Survey (ORC Macro).
IPT: Intermittent Preventive Treatment.
ITN: Insecticide-treated bed net.
MICS: Multiple Indicator Cluster Survey (UNICEF).
MIS: Malaria Indicator Survey.
MoH: Ministry of Health.
NA: Data not available.
NR: Not relevant, i.e. not government policy.
Tx: Treatment with any anti-malarial.

Malaria Scorecard Supplement B Program Data: Lesotho to Zimbabwe

(Data as of September 5, 2008)

COUNTRY	PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[1]: PERCENT, NUMBERS AFFECTED[2] AND INFORMATION SOURCE												
	PERCENT AND NUMBER OF HOUSEHOLDS OWNING AT LEAST ONE ITN[3]						PERCENT AND NUMBER OF UNDER FIVES SLEEPING UNDER ITN						
	BASELINE			MOST RECENT DATA			BASELINE			MOST RECENT DATA			
Lesotho													
Liberia	6.4%	44,100	MIS 2005				2.6%	17,200	MIS 2005				
Madagascar							< 1.0%	< 17,100	MICS 2000				
Malawi	27.4%	768,700	DHS 2004	37.8%	1,116,600	MICS 2006	14.8%	348,400	DHS 2004	24.7%	600,800	MICS 2006	
Mali	50.0%	1,051,800	DHS 2006				27.1%	611,500	DHS 2006				
Mauritania	< 1%	< 2,700	DHS 2003–04				2.1%	9,100	DHS 2003–04				
Mozambique	42.2%	1,687,800	DHS 2003				9.7%	332,300	DHS 2003				
Namibia	20.2%	91,900	DHS 2006–07				10.5%	26,200	DHS 2006–07				
Niger	43.0%	970,600	DHS 2006				1.0%	22,200	MICS 2000	7.4%	200,900	DHS 2006	
Nigeria	2.2%	592,800	DHS 2003	*2.4%*	*694,800*	*MOH† 2006*	1.2%	280,300	DHS 2003	*3.6%*	*881,700*	*MOH† 2006*	
Rwanda	14.7%	295,100	DHS 2005				5.0%	67,500	MICS 2000	13.0%	202,900	DHS 2005	
São Tomé/Principe	36.0%	8,700	MICS 2006				22.5%	4,900	MICS 2000	41.7%	9,700	MICS 2006	
Senegal	20.2%	273,300	DHS 2005	36.3%	504,000	MIS 2006	7.1%	133,700	DHS 2005	16.4%	313,400	MIS 2006	
Sierra Leone	4.9%	46,600	MICS 2006				1.5%	11,700	MICS 2000	5.3%	52,600	MICS 2006	
Somalia	12.2%	180,900	MICS 2006				2.6%	33,800	MICS 1999	11.4%	171,900	MICS 2006	
South Africa													
Sudan							*1.9%*	*101,400*	*MICS 2000*				
Swaziland	4.4%	10,800	DHS 2006–07				1.0%	1,500	MICS 2000	1.0%	1,500	DHS 2006–07	
Tanzania	1.3%	88,000	DHS 1999	39.2%	3,240,300	HMIS 2007–08	2.1%	122,300	DHS 1999	25.7%	1,796,700	HMIS 2007–08	
Togo	40.2%	548,700	MICS 2006				2.0%	18,400	MICS 2000	38.4%	401,600	MICS 2006	
Uganda	15.9%	952,900	DHS 2006				< 1%	< 9,800	DHS 2000–01	9.7%	568,500	DHS 2006	
Zambia	13.6%	278,700	DHS 2001–02	44.4%	999,600	MIS 2006	6.5%	122,700	DHS 2001–02	22.8%	459,700	MIS 2006	
Zimbabwe	8.5%	247,800	DHS 2005–06				2.9%	49,500	DHS 2005–06				

Notes:

[1] Values in italics refer to findings from sub-national surveys.

[2] Estimates of numbers affected were obtained by applying prevalence estimates obtained in a given year to the relevant population estimate (e.g. children under five) for that year, rounded to the nearest hundred. Population estimates (i.e. total population, under five population and births per year) were obtained from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision, http://esa.un.org/unpp accessed 09/05/08

[3] Estimates of the total number of households were calculated by World Bank staff: [total population estimate for the survey year (see note 2, medium variant projections)] divided by [average household size (*Source:* most recent Demographic and Health Survey (ORC Macro) or Multiple Indicator Cluster Survey (UNICEF))]. An alternative average household size source was used for São Tomé/Principe. .

[4] Except where noted otherwise, under five population with fever was calculated by World Bank staff as follows: [prevalence of fever among children under five (from national survey)] times [the under five population (see note 2)] for the year of the survey. Refers to timely access to artemisinin-based combination therapies (ACTs). As many survey reports specify only the percentage of children with fever who accessed ACTs and not the time frame in doing so, "less than" is indicated here with regard to those who may have done so within 24 hours of the onset of symptoms.

[5] Treatment with any anti-malarial (Tx) within 24 hours of the onset of symptoms.

[6] The number of births is used although this slightly underestimates the population of pregnant women. See note 2 for source information.

† Aggregated estimate obained by pooling results from surveys conducted in seven States using the Lot Quality Assurance Sampling approach, with technical assistance from the World Bank.

PROGRESS TO DATE ON ABUJA AND 2010 TARGETS[1]: PERCENT, NUMBERS AFFECTED[2] AND INFORMATION SOURCE														
	PERCENT AND NUMBER OF UNDER FIVES WITH FEVER ACCESSING EFFECTIVE ANTI-MALARIAL WITHIN 24 HOURS[4]							NUMBER OF PREGNANT WOMEN RECEIVING IPT[6] (2 OR MORE DOSES)						
	BASELINE ANY TX[5]			BASELINE			MOST RECENT DATA	BASELINE			MOST RECENT DATA			
				3.2%	6,500	MIS 2005		4.3%	8,300	MIS 2005				
	21.1%	178,100	MICS 2006	< 1%	< 5,000	MICS 2006		29.3%	159,400	DHS 2000	46.7%	272,400	MICS 2006	
	14.8%	59,800	DHS 2006	< 1%	< 2,400	DHS 2006		11.2%	68,900	DHS 2006				
	11.8%	19,100	DHS 2003–04											
	8.3%	75,900	DHS 2003											
	2.9%	1,200	DHS 2006–07	< 1%	< 300	DHS 2006–07		10.6%	5,700	DHS 2006–07				
	24.9%	181,200	DHS 2006	< 1%	< 4,300	DHS 2006		<1%	< 4,400	DHS 2006				
	24.9%	1,838,100	DHS 2003					1.1%	64,400	DHS 2003	*8.3%*	*498,400*	*MOH† 2006*	
	2.5%	10,200	DHS 2005	< 1%	< 2,400	DHS 2005		<1%	< 2,600	DHS 2005				
	17.0%	1,100	MICS 2006	< 6%	< 100	MICS 2006								
	10.9%	77,700	MIS 2006	3.1%	22,000	MIS 2006		10.1%	44,500	DHS 2005	51.2%	226,800	MIS 2006	
	45.0%	155,700	MICS 2006	< 1%	< 2,000	MICS 2006		1.8%	5,000	MICS 2006				
	2.9%	9,500	MICS 2006	< 1%	< 1,900	MICS 2006		<1%	< 2,300	MICS 2006				
	50.2%	*554,500*	*MICS 2000*											
	< 1%	< 300	DHS 2006–07					<1%	< 200	DHS 2006–07				
	34.3%	450,800	HMIS 2007–08					21.7%	344,000	DHS 2004	57.4%	926,800	HMIS 2007–08	
	37.5%	76,100	MICS 2006	< 1%	< 1,200	MICS 2006		18.1%	44,800	MICS 2006				
	28.9%	692,800	DHS 2006					17.6%	264,600	DHS 2006				
	37.0%	217,800	MIS 2006	12.7%	75,000	MIS 2006		61.9%	294,500	MIS 2006				
	3.4%	4,300	DHS 2005–06					6.8%	25,400	DHS 2005–06				

Legend:
DHS: Demographic and Health Survey (ORC Macro).
HMIS: HIV/AIDS Malaria Indicator Survey.
IPT: Intermittent Preventive Treatment.
ITN: Insecticide-treated bed net.
MICS: Multiple Indicator Cluster Survey (UNICEF).
MIS: Malaria Indicator Survey.
MoH: Ministry of Health.
NA: Data not available.
Tx: Treatment with anti-malarial.

Malaria Scorecard Supplement C—Background Information: Angola to Kenya

(Data as of September 5, 2008)

	ECONOMIC INFORMATION		DEMOGRAPHIC AND OTHER INFORMATION[3]				
			NUMBER OF HOUSEHOLDS[4]		TOTAL POPULATION		
COUNTRY	GDP[1] USD MILLIONS (2005)	TOTAL EXPENDITURE ON HEALTH AS % OF GDP[2] (2005)	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)	
Angola	30,632	1.8%	2,786,000	3,076,000	13,930,000	17,530,000	
Benin	4,287	5.4%	1,390,000	1,864,000	7,227,000	9,319,000	
Botswana	10,513	8.3%	422,000	465,000	1,729,000	1,906,000	
Burkina Faso	5,427	6.7%	1,519,000	2,343,000	11,882,000	15,230,000	
Burundi	796	3.4%	2,179,000	2,462,000	6,668,000	12,800,000	
Cameroon	16,588	5.2%	3,304,000	3,783,000	15,861,000	18,920,000	
Cape Verde	1,006	5.6%	98,000	118,000	451,000	543,000	
CAR	1,350	4.0%	743,000	852,000	3,864,000	4,432,000	
Chad	5,873	3.7%	1,568,000	2,053,000	8,465,000	11,090,000	
Comoros	387	3.0%	111,000	137,000	699,000	860,000	
Congo. Rep	6,087	1.9%	616,000	741,000	3,203,000	3,851,000	
Côte d'Ivoire	16,345	3.9%	2,368,000	2,730,000	17,049,000	19,660,000	
DR Congo	7,104	4.2%	7,920,000	12,020,000	50,689,000	64,900,000	
Djibouti	709	6.9%	128,000	149,000	730,000	848,000	
Eq. Guinea	7,528	1.7%	72,000	87,000	431,000	521,000	
Eritrea	970	3.7%	768,000	1,043,000	3,684,000	5,005,000	
Ethiopia	12,305	4.9%	14,456,000	17,067,000	69,388,000	85,330,000	
Gabon	8,666	4.1%	236,000	270,000	1,182,000	1,350,000	
Gambia	461	5.2%	187,000	237,000	1,384,000	1,754,000	
Ghana	10,720	6.2%	5,037,000	5,702,000	20,148,000	23,950,000	
Guinea	3,261	5.6%	1,243,000	1,577,000	8,203,000	9,618,000	
Guinea-Bissau	301	5.2%	183,000	233,000	1,370,000	1,751,000	
Kenya	18,730	4.5%	7,103,000	8,779,000	31,252,000	38,630,000	

Notes:

[1] *Source:* World Bank Group World Development Indicators (WDI) 2008. Figures are in current US$.

[2] *Source:* World Health Organization (WHO) World Health Report 2008. Figures computed by WHO to assure comparability; health expenditure data reported in WDI 2008 is obtained from WHO.

[3] Population estimates (i.e. total population, under five population and births per year) were obtained from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision, http://esa.un.org/unpp accessed 09/05/08

[4] Calculation by World Bank staff: [total population estimate for 2000/2008 (medium variant projection, see note 3)] divided by [average household size (Source: most recent Demographic and Health Survey (ORC Macro) or Multiple Indicator Cluster Survey (UNICEF)]. Alternative average household size sources were used for Botswana, Cape Verde, CAR, Djibouti and Equatorial Guinea.

[5] Calculation by World Bank staff obtained by applying the percentage of the population 0 to 4 years of age to the total population (medium variant estimates), rounded to the nearest thousand. See note 3.

[6] Calculation by World Bank staff: [prevalence of fever among children under five (from relevant survey)] times [under five population for 2000/2008 (see note 5)]. Prevalence of fever unavailable for Cape Verde.

[7] The number of births is used although this slightly underestimates the population of pregnant women. See note 3 for source information.

DEMOGRAPHIC AND OTHER INFORMATION[3]						
	UNDER FIVE POPULATION[5]		UNDER FIVE POPULATION WITH FEVER[6]		PREGNANT WOMEN POPULATION[7]	
	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)
	2,591,000	3,243,000	648,000	775,000	730,000	870,000
	1,279,000	1,556,000	524,000	445,000	332,000	386,000
	221,000	219,000	25,000	25,000	46,000	48,000
	2,246,000	2,726,000	824,000	1,000,000	593,000	693,000
	1,194,000	2,355,000	197,000	389,000	321,000	457,000
	2,506,000	2,857,000	621,000	486,000	637,000	646,000
	65,000	74,000	NA	NA	15,000	16,000
	634,000	687,000	202,000	149,000	153,000	163,000
	1,583,000	2,029,000	462,000	696,000	441,000	525,000
	115,000	132,000	36,000	41,000	27,000	28,000
	509,000	601,000	118,000	139,000	127,000	134,000
	2,694,000	2,910,000	827,000	757,000	669,000	694,000
	9,682,000	12,720,000	3,979,000	3,918,000	2,712,000	3,416,000
	105,000	108,000	24,000	6,000	24,000	24,000
	72,000	84,000	18,000	21,000	18,000	21,000
	623,000	856,000	186,000	255,000	166,000	200,000
	12,351,000	13,994,000	3,508,000	3,121,000	3,019,000	3,335,000
	157,000	159,000	46,000	46,000	34,000	35,000
	230,000	267,000	34,000	21,000	57,000	61,000
	2,982,000	3,233,000	635,000	724,000	688,000	708,000
	1,411,000	1,597,000	591,000	538,000	361,000	390,000
	266,000	345,000	112,000	46,600	74,000	92,000
	5,094,000	6,528,000	2,119,000	2,716,000	1,307,000	1,537,000

Legend:

GDP: Gross Domestic Product.

NA: Data not available.

Malaria Scorecard Supplement C—Background Information: Lesotho to Zimbabwe

(Data as of September 5, 2008)

	ECONOMIC INFORMATION		DEMOGRAPHIC AND OTHER INFORMATION[3]				
			NUMBER OF HOUSEHOLDS[4]		TOTAL POPULATION		
COUNTRY	GDP[1] USD MILLIONS (2005)	TOTAL EXPENDITURE ON HEALTH AS % OF GDP[2] (2005)	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)	
Lesotho	1,425	5.5%	484,000	514,000	1,886,000	2,019,000	
Liberia	530	6.4%	614,000	758,000	3,071,000	3,963,000	
Madagascar	5,040	3.2%	3,519,000	4,284,000	16,187,000	20,237,000	
Malawi	2,855	12.2%	2,642,000	3,170,000	11,623,000	14,313,000	
Mali	5,305	5.8%	1,888,000	2,170,000	10,004,000	12,748,000	
Mauritania	1,837	2.7%	442,000	496,000	2,566,000	3,203,000	
Mozambique	6,579	4.3%	3,713,000	4,362,000	18,194,000	21,794,000	
Namibia	6,230	5.3%	368,000	461,000	1,879,000	2,102,000	
Niger	3,330	3.8%	1,824,000	2,340,000	11,124,000	14,780,000	
Nigeria	112,249	3.9%	24,955,000	29,628,000	124,773,000	151,530,000	
Rwanda	2,379	7.2%	1,777,000	2,126,000	8,176,000	10,054,000	
São Tomé and Principe	114	9.8%	22,000	25,000	140,000	160,000	
Senegal	8,688	5.4%	1,188,000	1,424,000	10,334,000	12,695,000	
Sierra Leone	1,215	3.7%	754,000	971,000	4,521,000	5,945,000	
Somalia	NA	NA	1,238,000	1,528,000	7,055,000	8,970,000	
South Africa	242,059	8.7%	9,457,900	12,757,000	45,398,000	48,742,000	
Sudan	27,386	3.8%	5,750,000	6,661,000	33,349,000	39,498,000	
Swaziland	2,613	6.3%	230,000	248,000	1,058,000	1,146,000	
Tanzania	14,142	5.1%	6,770,000	8,266,000	33,849,000	41,516,000	
Togo	2,154	5.3%	1,001,000	1,403,000	5,403,000	6,769,000	
Uganda	8,738	7.0%	5,144,000	6,197,000	24,690,000	32,003,000	
Zambia	7,349	5.6%	2,010,000	2,296,000	10,451,000	12,166,000	
Zimbabwe	3,418	8.1%	3,013,000	2,972,000	12,656,000	13,504,000	

Notes:

[1] *Source:* World Bank Group World Development Indicators (WDI) 2008. Figures are in current US$.

[2] *Source:* World Health Organization (WHO) World Health Report 2008. Figures computed by WHO to assure comparability; health expenditure data reported in WDI 2008 is obtained from WHO.

[3] Population estimates (i.e. total population, under five population and births per year) were obtained from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision, http://esa.un.org/unpp accessed 09/05/08

[4] Calculation by World Bank staff: [total population estimate for 2000/2008 (medium variant projection, see note 3)] divided by [average household size (Source: most recent Demographic and Health Survey (ORC Macro) or Multiple Indicator Cluster Survey (UNICEF))]. An alternative average household size sources was used for São Tomé/Principe.

[5] Calculation by World Bank staff obtained by applying the percentage of the population 0 to 4 years of age to the total population (medium variant estimates), rounded to the nearest thousand. See note 3.

[6] Calculation by World Bank staff: [prevalence of fever among children under five (from relevant survey)] times [under five population for 2000/2008 (see note 5)].

[7] The number of births is used although this slightly underestimates the population of pregnant women. See note 3 for source information.

DEMOGRAPHIC AND OTHER INFORMATION[3]						
	UNDER FIVE POPULATION[5]		UNDER FIVE POPULATION WITH FEVER[6]		PREGNANT WOMEN POPULATION[7]	
	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)	BASELINE (2000)	MOST RECENT DATA (2008)
	279,000	270,000	71,000	69,000	60,000	57,000
	580,000	763,000	180,000	230,000	162,000	210,000
	2,849,000	3,238,000	453,000	667,000	684,000	748,000
	2,185,000	2,505,000	909,000	869,000	544,000	600,000
	1,961,000	2,404,000	526,000	430,000	525,000	638,000
	405,000	464,000	126,000	174,000	98,000	104,000
	3,148,000	3,692,000	841,000	986,000	843,000	848,000
	269,000	252,000	52,000	43,000	53,000	55,000
	2,225,000	2,891,000	926,000	775,000	624,000	771,000
	22,085,000	25,093,000	6,979,000	7,929,000	5,677,000	6,066,000
	1,349,000	1,759,000	451,000	461,000	363,000	470,000
	22,000	23,000	6,000	7,000	5,000	5,000
	1,695,000	1,963,000	347,000	732,000	416,000	447,000
	782,000	1,031,000	359,000	360,000	237,000	284,000
	1,298,000	1,572,000	221,000	343,000	349,000	395,000
	5,175,000	5,186,000	994,000	1,000,000	1,124,000	1,058,000
	5,336,000	5,585,000	1,105,000	1,156,000	1,209,000	1,243,000
	151,000	148,000	6,000	40,000	33,000	32,000
	5,822,000	7,074,000	2,044,000	1,330,000	1,523,000	1,621,000
	919,000	1,076,000	333,000	209,000	231,000	251,000
	4,889,000	6,234,000	2,146,000	2,550,000	1,268,000	1,576,000
	1,860,000	2,051,000	805,000	599,000	460,000	481,000
	1,784,000	1,723,000	460,000	129,000	372,000	378,000

Legend:

GDP: Gross Domestic Product.

NA: Data not available.

APPENDIX 2

Chronology of Phase II Development

DATE	EVENT	KEY OUTCOMES
September–November 2007	Development of concept note	Concept note outlining the key pillars developed by the Malaria Implementation Resource Team and distributed to the High-Level Advisory Committee. The committee comprised key Bank partners in malaria control.
December 13, 2007	First consultation with High-Level Advisory Committee (via teleconference)	Received preliminary input and comments on the concept note. *Broad recommendations:* Explicitly state lessons learned for each proposed Phase II pillar, add ongoing follow-up support to Booster Program countries as a separate pillar, agree that the Bank has a comparative advantage to promote regional and cross-border approaches, rename Pillar 2 so that other countries are not excluded, and expand Pillar 3 to support for access to effective malaria treatment (not just the Affordable Medicines Facility for malaria). These recommendations were integrated into the concept note.
January 14, 2008	Second consultation with High-Level Advisory Committee (via teleconference)	Received input on revised concept note. *Broad recommendations:* Secure financial and human resources to implement Phase II, ensure that Phase II is coordinated with various key players within and outside of Roll Back Malaria Partnership (such as the International Health Partnership), and focus on scaling up for impact approach. These recommendations were integrated into the concept note.
January 29–30, 2008	Two-day final consultation with key stakeholders in Washington, DC	This meeting brought together more than 40 stakeholders, including senior government representatives, global partners and donors, the private sector, nongovernmental organizations, advocates, and World Bank staff members. Participants endorsed the five key pillars of the Phase II strategy, agreed that the strategy capitalizes on the Bank's comparative advantages, and agreed that Phase II is being developed in the context of the elimination agenda and other significant changes in the malaria landscape.
February 2008	Development of first draft of the Phase II strategy paper	The draft Phase II strategy was revised to incorporate additional input from the consultation.
May 2008	Revised draft of Phase II strategy presented to the World Bank's Africa Region Vice Presidency	The draft Phase II strategy was revised to incorporate comments and input from the vice presidency.
July 2, 2008	Presentation of Phase II strategy to Bank's Africa Region Senior Leadership Team for technical discussion	The Phase II strategy was further refined based on the input of the Senior Leadership Team.
September 23, 2008	Informal discussion of Phase II Strategy with the World Bank Board of Executive Directors	The Phase II Strategy was endorsed by the Board of Executive Directors.

Source: Booster Program staff 2008.

APPENDIX 3

Three Largest Financiers of Malaria Control and Their Comparative Advantages

	WORLD BANK	GLOBAL FUND	PRESIDENT'S MALARIA INITIATIVE
Funds committed (time frame)	US$470 million in Africa (2005–08) US$200 million in India (2008–13)	Total funding (through Round 7) of two-year grants: US$1.8 billion; for five-year grants: US$3.7 billion	US$1.2 billion (2005–10)
Funding mechanism	Provides loans and grants (IDA) directly to governments at their request. IDA support may be supplemented by trust funds.	Provides grants to principal recipients in countries after independent review of applications. Funding is dependent on grant performance.	Through a congressionally approved budget, PMI provides fiscal year funding.
Regions	Primarily in Africa, secondarily in South Asia.	All regions, 78 countries, 146 separate malaria grants.	Africa (15 focus countries).
Approach	Supports the implementation of national malaria control plans and the strengthening of health systems. Financing is managed by governments. The Bank has "no objection" to major procurement and reallocation decisions.	Three main funding approaches: • Phase I for two years, based on reviewed country applications. • Phase II for up to three years, based on performance in Phase I. • "Rolling continuation channel" for continuation funding of well-performing grants.	Supports implementation of annual operational plans, which are developed jointly by PMI, managers of national malaria control programs, and domestic and international partners. Financing is managed by an in-country PMI team consisting of staff from USAID and the CDC, and 40–50 percent of the budget is spent on commodities. Supports four key intervention areas—indoor spraying of homes with insecticides, insecticide-treated mosquito nets, dispensing of antimalarial drugs, and prevention of malaria in pregnant women. Also supports commodity logistics management and M&E, as well as information, education, communication and behavioral change communication, training and supervision related to interventions.

	WORLD BANK	GLOBAL FUND	PRESIDENT'S MALARIA INITIATIVE
Technical assistance	Countries may spend project funds to purchase technical assistance. Supplemental assistance for planning, implementation, and M&E are provided by the MIRT and its consultants.	Relies on its partners to provide technical assistance to grantees. Funds to pay for such technical assistance can be included in the grant.	CDC provides technical support for PMI. Additional technical support is available through a US$1 million grant to RBM's Subregional Network. Countries may also spend project funds to purchase technical assistance.
Comparative advantages	• IDA flexibility (allows for reallocation of resources to fill gaps). • Relationships with ministries of finance as well as with sector ministries. • Financial incentives (2-to-1 matching funds) for regional collaboration. • Capacity to support multisector projects. • Convening power at national and regional levels. • Economic analysis and innovative financing.	Country-driven application process. All lower-income countries and some middle-income countries are eligible. Sustained, long-term and large-scale funding. Well-performing projects can receive further funding.	In-country staff allow for close collaboration with host country and partners. Aggressive roll-out of PMI activities in a short period of time produces immediate impact.
Partnership	• Embedded within the RBM Partnership. • Takes a leadership role in Nigeria and the Democratic Republic of Congo, economics and financing, and getting partners to support regional programs. • Mobilizes and manages resources from nontraditional partners and the private sector.	Ex-officio member of the RBM Board. The Global Fund is Board-driven, with broad representation across constituencies. Global Fund–mandated Country Coordination Mechanism has similar broad representation.	U.S. government partners include USAID, Health and Human Services, CDC, Departments of Defense and State, the National Institutes of Health, and the White House. International partners include WHO, UNICEF, American Red Cross, RBM Partnership, Malaria No More, Nothing But Nets, The Global Fund, World Bank, the U.S. President's Emergency Plan for AIDS Relief, and the Peace Corps. In-country partners are community-based, faith-based, and nongovernmental organizations.

Note: CDC, Centers for Disease Control and Prevention; IDA, International Development Association; M&E, monitoring and evaluation; MIRT, Malaria Implementation Resource Team; PMI, President's Malaria Initiative; RBM, Roll Back Malaria; UNICEF, United National Children's Fund; USAID, U.S. Agency for International Development; WHO, World Health Organization.

APPENDIX 4

Phase II Results Framework

What Is the Results Framework?

The Results Framework (RF) describes the conceptual links between the activities of the World Bank's Booster Program for Malaria Control in Africa, Phase II, and the goal of the program. The framework describes these links using graphs and tables to communicate the logical pathway from the Bank's activities to its goals.

Figure A4.1 Results Framework Pyramid

Source: William Weiss, consultant, 2008.

The RF is essentially a pyramid showing the Bank's activities (or **services** provided by the Bank) displayed at the bottom of the pyramid with the goal of the Bank's services at the top. The Bank's services produce typical outputs that are essentially the quantity of services expected to be received by the beneficiaries of those services—countries, regions, and individuals. In turn, each output is linked to an **expected result.** Expected results—changes in health behaviors, utilization of services, and health systems strengthening—are *expected to result from the service outputs.* These results are scientifically linked to the broader strategic objectives of the World Bank Booster Program: improved prevention or improved treatment of malaria or both. Accomplishing these two strategic objectives reflects what is necessary and sufficient for achieving the overall goal of the Booster Program: eliminating malaria as a public health threat in Booster countries.

How to Distinguish Contribution from Attribution

World Bank services and support areas alone are not expected to be sufficient to achieve the outputs, results, strategic objectives, and goal listed in the Results Framework. What is expected is that the Bank's services will contribute substantially in those geographic areas the Bank is targeting. The Bank works with many partners to achieve the program goal. It is not expected or possible for the Bank to fully attribute the results seen in Booster countries to the Bank's efforts alone. The Bank provides a necessary but not sufficient contribution to the effort to eliminate malaria as a public health threat.

Organization of the Results Framework around Pillars

Phase II of the World Bank Booster Program is organized around five pillars. For this reason, the RF is also organized this way. The five pillars of the RF are the following:

1. **Regional and cross-border malaria prevention and control**
   Central to this pillar is World Bank support for regional institutions that can jointly plan, implement, and monitor malaria control programs across borders.

2. **Intensified support to high-burden countries with high unmet need**
   The high-burden countries of Nigeria and the Democratic Republic of

Congo are the primary focus of this pillar. The Bank will support a comprehensive range of malaria control and institutional strengthening activities to both prevent malaria and improve the quality of malaria treatment.

3. **Sustained support to clients and Booster projects from Phase I and targeted support to new countries**
   This pillar allows the Bank to use a scale up for impact (SUFI) approach and to implement an exit strategy for some Phase I countries without any harmful interruptions of services. It also allows the Bank to support new countries that meet strategic criteria for support.

4. **Operational facilitation of policies and strategies intended to increase equitable access to effective malaria treatment**
   This pillar provides a base of support for activities within Pillars 1, 2, and 3 that are carried out to improve the quality of malaria treatment. Involvement of the private sector is an important component of Pillar 4.

5. **Strengthen essential health systems in Booster countries to scale up delivery of malaria control**
   Similar to Pillar 4, this pillar also provides a base of support for the activities in Pillars 1–3 as well as in Pillar 4. Strengthening the health system in Booster countries is necessary for enabling the scale-up of malaria control activities for nationwide and regional impact. This pillar will better enable Booster countries to effectively plan, implement, and monitor large-scale malaria control activities.

Two Versions of the Results Framework

There will be two versions of the Results Framework. The first version provides a broad conceptual overview of the Phase II Booster Program, without large amounts of detail. This will be used to develop a consensus for the Bank's malaria strategy. The second version will include detailed information about specific activities that Bank staff will carry out, along with explicit assumptions about how other partners will support achievement of the goal of eliminating malaria as a public health threat. This also includes a monitoring and evaluation plan for Phase II that Bank staff can use to help manage the program. In specific terms, the version 2 RF will provide a sub-RF for each bubble on the version 1 RF that exhibits its operation plan.

APPENDIX 5

Three-Year Action Plan for Phase II

ITEM	FISCAL YEAR FY09	FY10	FY11	ACCOUNTABILITY
Programmatic planning and implementation				
Prepare regional project				MIRT
Support implementation of regional project				MIRT
Prepare additional financing packages for Nigeria and the Democratic Republic of Congo				MIRT
Provide technical support to Booster country portfolio				MIRT
Prepare follow-on activities or plan country-specific exit strategies				MIRT
Support health systems assessments in Booster countries				MIRT/IHP
Support capacity-building activities, such as workshops on procurement and supply chain management				MIRT
Revise Bank procurement guidelines for malaria commodities				MIRT
Develop and implement the LLIN Financing Solution				MIRT
Partnership work				
Forge and facilitate regional and subregional partnerships				MIRT
External partnerships: maintain leadership role within RBM in (i) economic and finance work, (ii) country work (the Democratic Republic of Congo and Nigeria), and (iii) regional work				MIRT/RBM
Internal partnerships: create cross-sectoral partnerships with the agriculture, education, and infrastructure sectors				MIRT
Resource mobilization: engage new donors (nontraditional donors and private sector)				MIRT/RBM
Monitoring and evaluation				
Develop a Phase II results framework				MIRT
Develop an M&E strategy for regional projects				MIRT
Develop regional partnerships to give M&E support to regional and country programs				MIRT/RBM
Provide ongoing M&E support to country and regional programs				MIRT
Develop M&E tools				MIRT
Build capacity for data collection and use for M&E to improve programs				MIRT
Support the RBM Monitoring and Evaluation Reference Group in advancing the development of the Malaria Scorecard as a database				MIRT/RBM/ DEC
Develop and maintain partnerships with international partners on M&E				MIRT/RBM/ bilateral agencies

ITEM	FISCAL YEAR FY09	FY10	FY11	ACCOUNTABILITY
Carry out portfolio reviews to chart progress				MIRT
Carry out economic and sector work to report on M&E systems development				MIRT
Carry out impact evaluations of Booster projects				MIRT, DEC
Communications				
Revise and implement communications strategy				MIRT
Analytical work				
On the economic rationale and financing models for malaria control in Africa				MIRT
On how to engage the private sector				MIRT/IFC
On how to ensure the equitable delivery of malaria control interventions				MIRT
On how the government can become the steward of consumer protection and pharmacovigilance (the pharmacological science relating to the detection, assessment, understanding, and prevention of adverse effects, particularly long-term and short-term side effects of medicines)				MIRT

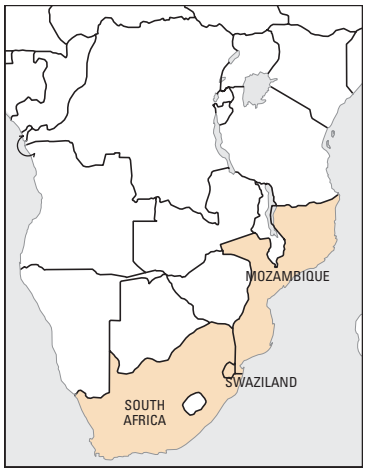
Note: DEC, Development Economics; IFC, International Finance Corporation; IHP, International Health Partnership; LLIN, long-lasting insecticidal net; ME, monitoring and evaluation; MIRT, Malaria Implementation Resource Team; RBM, Roll Back Malaria.

APPENDIX 6

Regional Integration Maps

Possible Progression of Engagement in a Regional Elimination Approach

Lubombo Spatial Development

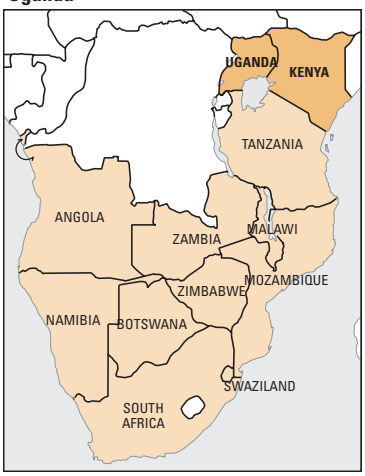


Phase 1: Trans Caprivi

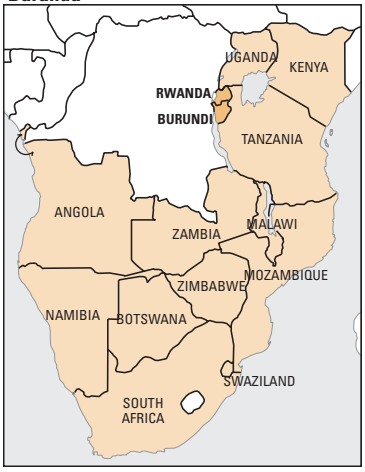
Phase 2a: Regional Integration Program—Engagement of Malawi

Phase 2b: Rional Integration Program—Engagement of Tanzania

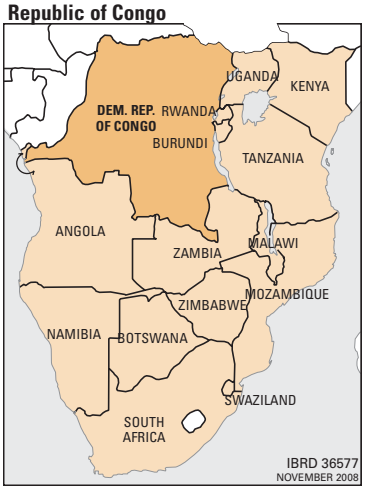
Phase 3a: Engagement of Kenya and Uganda



Phase 3b: Engagement of Rwanda and Burundu



Phase 3c: Engagement of the Democratic Republic of Congo



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Boxes, figures, notes, and tables are denoted by b, f, n, and t.

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An estimated 500 million cases of malaria occur each year, taking the lives of 1 million people, including 3,000 children each day. Ninety percent of these deaths occur in Sub-Saharan Africa, where the disease kills more children than any other. Malaria is not only a major public health issue but also a broader development problem that costs Africa US$12 billion a year, stalling economic and social development.

In 2005, the World Bank reaffirmed its commitment to malaria control by launching the Booster Program for Malaria Control in Africa, a 10-year initiative that in its first three years committed over US$470 million to controlling malaria in Africa. By combining disease control interventions and health systems strengthening, Phase I of the program has contributed significantly to the global effort to fight the disease. The Booster Program has begun implementation of its second three-year phase through which the World Bank, as one of the three major financiers of malaria control in Africa, will intensify its efforts to help more African countries to achieve and sustain large-scale impact on malaria.

Intensifying the Fight against Malaria: The World Bank's Booster Program for Malaria Control in Africa describes the program, its achievements during its first three years, and the design of Phase II. Whereas Phase I took advantage of relatively facile opportunities to support countries' malaria control goals, Phase II is more strategic and builds on the successes of and lessons learned from Phase I. It also capitalizes on the Bank's strengths in facilitating cross-border and multisectoral projects, providing large-scale, flexible funding, and initiating high-level policy dialogue in client countries.

Phase II rests on five pillars:

- Enhancing regional and cross-border prevention and control
- Intensifying support to two high-burden countries with high unmet need, the Democratic Republic of Congo and Nigeria
- Providing sustained support for ongoing programs and a targeted approach to new country efforts
- Facilitating policies and strategies to increase equitable access to effective treatment
- Strengthening essential health systems to scale up the delivery of malaria interventions.

African countries and the global community have seized on the intense energy around malaria by making a commitment to eliminate it as a major public health issue in Africa. Through Phase II of the Booster Program, the World Bank is called to play a crucial role in helping Africa to defeat malaria and to keep moving toward its path of economic growth and social development.

www.worldbank.org/malaria

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