The World Bank’s Booster Program for Malaria Control in Africa: Phase II Strategy

September 2008

AFTHD
Africa Region

Document of the World Bank
Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>AAP</td>
<td>Africa Action Plan</td>
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<tr>
<td>ACT</td>
<td>Artemisinin-based combination therapies</td>
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<td>AFCC1</td>
<td>Africa Region Country Unit</td>
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<td>AFCS1</td>
<td>Africa Region Country Unit</td>
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<td>AFR</td>
<td>African Development Bank</td>
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<td>AFRV</td>
<td>Office of the Africa Region Vice President</td>
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<td>AFTHD</td>
<td>Africa Region Human Development</td>
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<td>AFTSN</td>
<td>Africa Region Environmentally and Socially Sustainable Development</td>
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<td>AIDS</td>
<td>Acquired Immuno-Deficiency Syndrome</td>
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<td>AMFm</td>
<td>Affordable Medicines Facility for malaria</td>
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<tr>
<td>ANC</td>
<td>Antenatal care</td>
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<td>APL</td>
<td>Adaptable program loan</td>
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<td>AU</td>
<td>African Union</td>
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<td>BCC</td>
<td>Communication for Behavior Change</td>
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<td>BMGF</td>
<td>Bill &amp; Melinda Gates Foundation</td>
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<td>CDC</td>
<td>Centers for Disease Control</td>
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<td>DEC</td>
<td>Development Economics</td>
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<td>DHS</td>
<td>Demographic and health survey</td>
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<td>DOD</td>
<td>Department of Defense</td>
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<td>DOS</td>
<td>Department of State</td>
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<td>DR</td>
<td>Democratic Republic of Congo</td>
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<td>Congo</td>
<td>Emergency Recovery Loan</td>
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<td>ERL</td>
<td>Emergency Recovery Loan</td>
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<td>GF</td>
<td>Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria</td>
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<td>GMBP</td>
<td>Global Malaria Business Plan</td>
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<td>HHS</td>
<td>Health and Human Services</td>
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<td>HIV</td>
<td>Human Immuno-deficiency Virus</td>
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<td>HNP</td>
<td>Health, Nutrition, and Population</td>
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<td>HWG</td>
<td>Harmonization Working Group</td>
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<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
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<td>IDA</td>
<td>International Development Association</td>
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<td>IDB</td>
<td>Inter-American Development Bank</td>
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<td>IEC</td>
<td>Information, Education, Communication</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IHP</td>
<td>International Health Partnership</td>
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<td>IPTp</td>
<td>Intermittent preventive treatment in pregnancy</td>
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<td>IRS</td>
<td>Indoor residual spraying</td>
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<td>ITN</td>
<td>Insecticide-treated net</td>
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<td>LLINs</td>
<td>Long-lasting insecticidal nets</td>
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<td>MACEPA</td>
<td>Malaria Control and Evaluation Program in Africa</td>
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<td>MBP</td>
<td>Malaria Booster Program</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MDTF</td>
<td>Multi-donor Trust Fund</td>
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<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
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<td>MERG</td>
<td>Monitoring and Evaluation Reference Group</td>
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<td>MIGA</td>
<td>Multilateral Investment Guarantee Agency</td>
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<td>MIRT</td>
<td>Malaria Implementation Resource Team</td>
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<td>Malaria Implementation Support Team</td>
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<td>NGO</td>
<td>Non-governmental organization</td>
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<td>NIH</td>
<td>National Institutes of Health</td>
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<td>NMCP</td>
<td>National Malaria Control Program</td>
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<td>OPCS</td>
<td>Operations Policy and Country Services</td>
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<td>ORT</td>
<td>Oral rehydration therapy</td>
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<td>PEPFAR</td>
<td>President’s Emergency Plan for AIDS Relief (United States)</td>
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<td>PMI</td>
<td>President’s Emergency Plan for AIDS Initiative (United States)</td>
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<td>SIL</td>
<td>Specific Investment Loan</td>
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<td>SIM</td>
<td>Sector Investment and Maintenance Loan</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>US</td>
<td>United States</td>
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<td>USG</td>
<td>United States Government</td>
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<td>SO</td>
<td>Strategic objective</td>
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<td>SP</td>
<td>Sulfadoxine-pyrimethamine</td>
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<td>SUFI</td>
<td>Scaling Up for Impact</td>
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<td>TF</td>
<td>Trust fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VP</td>
<td>Vice President</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WBI</td>
<td>World Bank Institute</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Acknowledgements

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Executive Summary

Introduction

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 is a 10-year program designed to help African nations to 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 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 fora.

The primary audience for this version of the document is the World Bank’s senior management. After incorporating input from that group, the Booster team will make the final document available to its clients and partners and to the interested public.

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 $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
and 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 sub-optimal agricultural production, reduces labor productivity through lost work days and diminished on-the-job performance, and affects learning and scholastic achievement through frequent absenteeism and, in children who suffer severe or frequent infections, cognitive impairment and in some cases permanent neurological damage.

Thankfully, tools exist to control malaria. 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 $20 for every $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.

The Roll Back Malaria (RBM) partnership, of which the World Bank is a key member, 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 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.
Approach

The Booster Program’s approach makes available flexible, cross-border, and multi-sector 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.

Within the context of the RBM partnership, the Bank uses its comparative advantages vis-à-vis other partners to help countries to identify and fill gaps in financing, to break through bottlenecks, and to achieve the goals of their National Malaria Control Plans. The Bank has created a small team to coordinate activities under the Booster Program—the Malaria Implementation Resource Team (MIRT). 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 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 nine-fold 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. By the end of 2008, this figure will have increased to US$304 million (or approximately 67 percent of total commitments).

Of the 258 million people living in the areas covered by Phase I, 45 million are children under the age of five years old 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 nets (1.4 million of which were purchased with IDA funds) nationwide—the first LLIN distribution to cover 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 that 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, while nine times the amount that the Bank had committed between 2000 and 2005, was insufficient for most Booster 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 monitoring and evaluation (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 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 key in 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, eliminating 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 (“front-loaded” meaning to make a strong and concentrated effort at the outset of an initiative) to scale up effective malaria control interventions and on moving 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.
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 both as achievable and essential for development. Acknowledging the long-term need to and possibility of eradicating malaria 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 a “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 bednets). The expectation is that SUFI will not only save 3.5 million lives over the next five years but that it will also 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 the World Bank’s President Robert Zoellick.

The RBM Partnership has adopted a Global Malaria Business Plan 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 Africa Steering group and President Robert Zoellick’s emphasis on malaria control as a global public good, as well as the institution’s Africa Action Plan, 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:

- **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, global partners and donors, the private sector, malaria advocates, non-governmental 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 agree 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 to 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 anti-malaria 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 (DR 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, largest population 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 the countries themselves and by its 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, TB and Malaria and the U.S. President’s Malaria Initiative. 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 DRC, 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, but it is also essential to be able to discern where problems persist in order to prevent malaria transmission from reoccurring, which could seriously jeopardize the attainment of the elimination goal. Phase II will therefore focus further on building country capacity in the area of M&E by developing a monitoring system within the Bank to track progress in each project, improving coordination with the Bank’s partners on M&E, and tracking overall progress to allow the MIRT to make program adjustments as necessary.

**The Resource Envelope for Phase II**

It is estimated that US$1,125 million will be required from IDA-15 for the three years of Phase II. 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 available 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 the 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 DR Congo. The Region will also strengthen its quality assurance program in line with the increased accountability required in Phase II.
Conclusion

The Bank’s clients and the international community have come to expect the Bank to be committed to fighting malaria in Africa at the highest institutional level and believe that its full engagement is critical to achieving success. Demand from clients for International Development Association (IDA) funding for malaria control activities remains high, the Bank’s leadership role and collaboration with its partners has 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 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 major public health challenges in the world—malaria in Africa. African nations and their development partners have realized that not 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 to reach Millennium Development Goals 4, 5, and 6 (reduce child mortality by two-thirds, reduce 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 by approximately US$240 million per year. Other donors are expected to increase their support as well. Because the World Bank is well positioned to help to 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.
I. 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 human beings by 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 burden 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 (WHO/UNICEF, 2003), demographic and health surveys (DHS) 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 under-count the actual numbers of cases. The Africa Malaria Report (WHO/UNICEF, 2003) noted that the data that health facilities routinely send to their Ministries of Health vary from country to country in terms of their completeness and timeliness, and typically no data are sent from non-government 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 DR 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 birth weight, 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 bednets and intermittent preventive treatment in pregnancy (IPTp), may prevent 3 to 8 percent of infant deaths (Steketee et al, 2001 and Guyatt and Snow, 2001).

Taking all child deaths that are both directly and indirectly attributable to malaria in areas with high-intensity malaria transmission together, they 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).
Figure 1: Malaria Kills Children in Three Different Ways

Malaria infection contributes to illness and death in several ways as depicted in Figure 1, which is taken from the Africa Malaria Report (WHO/UNICEF, 2003). 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 et al, 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 there were more than 803,000 child deaths from malaria (the precise estimate being between 705,820 and 901,418) in the year 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 DR 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 non-immune 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 et al, 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 towards many of the targets set out in the Millennium Development Goals (MDGs).

*Malaria is 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 et al, 2004). Poverty may prevent some households from spending the money needed to treat malaria infections, thus risking complications and death, or making that expenditure may negatively affect the household’s ability to cope with other contingencies over the long term (Chuma et al, 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 growth and low income.

*Who Pays for Malaria?* 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 non-governmental organizations (NGOs) also pay for malaria. In some

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\(^1\) People spend money on doctors’ fees, anti-malarial 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 (ITNs) and other personal protection measures (such as mosquito coils).
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, for example, by:

- Discouraging internal and foreign investment and tourism
- Affecting land use patterns and crop selection, resulting in sub-optimal agricultural production and contributing to the cycle of poverty and malnutrition
- Reducing labor productivity through lost work days and diminished on-the-job performance
- Negatively affecting learning and scholastic achievement through frequent absenteeism and, in children who suffer from severe or frequent infections and associated anemia and iron depletion, 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. 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 since this would not only free up health resources but also would 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.
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, 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 (i) to increase vector control to levels that will reduce both transmission and the number of cases and (ii) to 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 due in large part to lifestyle improvements such 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. 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. 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.
Table 1: Characteristics That Make Controlling Malaria in Sub-Saharan Africa Particularly Challenging

<table>
<thead>
<tr>
<th>Factors Related to:</th>
<th>In Sub-Saharan Africa</th>
<th>Elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td>The climate</td>
<td>Warm and humid all year round in many places, which increases mosquito longevity, breeding, and the speed with which the parasite passes through the stages of its lifecycle, all of which favor transmission.</td>
<td>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).</td>
</tr>
<tr>
<td>The parasite</td>
<td>Predominant species = <em>Plasmodium falciparum</em>, the deadliest form (requires high average temperatures).</td>
<td>Species composition varies, with some areas having predominantly <em>P. vivax</em>, which is rarely fatal.</td>
</tr>
<tr>
<td>The vector (mosquito species and its behavior)</td>
<td>Home to the most efficient malaria vectors in the world (<em>Anopheles funestus</em>, and especially the <em>A. gambiae</em> complex), which prefer to bite humans, survive for a long time, and in the case of <em>A. gambiae</em>, breed in puddles as small as hoofprints.</td>
<td><em>Anopheles</em> species, which are in many places not very effective in transmitting malaria.</td>
</tr>
<tr>
<td>Humans (their health status and behavior)</td>
<td>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 enhance the exposure of vulnerable populations.</td>
<td>Faster economic development in many areas and wider access to better housing structures.</td>
</tr>
<tr>
<td>Health services</td>
<td>Poor quality or inaccessible health care services (leading to widespread self-treatment with incorrect medicines or dosages).</td>
<td>Higher quality, more accessible health care services in many areas.</td>
</tr>
</tbody>
</table>

Despite these challenges, effective tools for preventing and treating malaria do exist. These include both curative methods (such as anti-malarial drugs like ACTs) and preventative 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 multi-country analysis of the effects of a “minimum” package of key child health interventions, UNICEF found that using ITNs was the most effective way to reduce deaths in children under the age of five (UNICEF, 2005).
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 et al, 2007). The effects of insecticide use must be monitored and detected in a timely fashion to inform policy 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 et al, 2004).

Reducing the Burden is 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 much as 50 percent and all-cause under-five mortality by about 17 percent (Rowe and Steketee, 2007). While 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 (RBM) Partnership 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 proven to be extremely difficult to switch from conventional anti-malarial 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 a Roll Back Malaria (RBM) Program.
II. The Booster Program 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 Partnership noted that, “the Bank’s presumed comparative advantage in development policies, sector-wide planning, and budgeting was inaccessible to the broader RBM partnership” due 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 that 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 et al, 2004).

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 Abuja Summit to Roll Back Malaria in 2000, at 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 Roll Back Malaria 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). It recognized malaria as a fundamental obstacle to human and economic development, especially in Africa, and that many of the Millennium
Development Goals could not be achieved in the absence of effective malaria control.

Soon after the publication of this 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, France. Given the Bank’s strong commitment to the Booster Program, the then World Bank Group President, Paul Wolfowitz, 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, NGOs, 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).

**Box 1: The Africa Action Plan**

The World Bank’s Africa Action Plan 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 as reducing child mortality cannot be achieved without a significant effort to control malaria.

*Source: World Bank (2005c)*

**Figure 5: The Africa Action Plan**

As part of this re-commitment, 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 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 sub-regional 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 to contribute to the collective efforts of countries and its development partners to reach the coverage targets established in Abuja.  

Through the Booster Program, the Bank’s role, in collaboration with other institutions and individuals, is to help countries to 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 timeframe, which began with the three-year Phase I (from 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 LLINs and IRS for prevention and 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.

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2 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.
Box 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 proven 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 (RBM) Partnership. The partnership approach is essential since, 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 multi-sector 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.** Because insufficient data and weak monitoring and evaluation 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.

Initial Results

Since the beginning of the Booster Program significant progress has been made 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 nine-fold (from less than US$50 million in the previous five-year period to over US$470 million).
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. 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 is 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.

In Zambia, as an example of the flexibility of the funding that the Bank provides, where the Bank was able to step in and “front load” the IDA credit 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 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 (Annex 1) for tracking dollar investments and the coverage of key interventions, such as the use of ITNs, access to anti-malarial treatment for children, intermittent preventive treatment for pregnant women, and IRS.

**Box 3: Focus on Results**

While Booster projects vary in their design, all of them are measured against the indicators and targets agreed by the Roll Back Malaria Partnership’s Monitoring and Evaluation Reference Group (RBM 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 its monitoring and evaluation efforts. The partnership will help to gather up-to-date information on metrics such as the number of children sleeping under long-lasting insecticidal nets (LLINs) or the number of households that have been sprayed to be reported in the Scorecard.

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 sustainable progress.

**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 implementation phase, with the exception of the recently approved (May 2008) Health Sector Support Development Project for the Republic of Congo. There is considerable variation in progress 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 NGOs as part of a nutritional improvement program. In addition, Nigeria has just successfully completed one of its largest procurements of LLINs, while DR 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 underway.
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.

**Harmonization and Coordination of 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. At this event, senior policymakers and program managers from 15 African countries were joined by 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 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)\(^3\). The World Bank and 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 to develop better malaria funding proposals to submit to the 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 should take over this role to help countries to overcome bottlenecks as quickly as possible.

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\(^3\) 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.
Box 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, policymakers, 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 key elements of the Dakar Appeal are:

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 where 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.

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 (MERG) 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 US 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 US Government (the PMI and/or USAID)—are now providing financial support to 14 of the 19 countries with Booster Program projects that are either operational or in the pipeline. This type of coordination proves that, when donors work in close partnership, this is not only efficient but also critical for success as no single donor alone can provide all of the resources needed to bring malaria under control.
Table 3: Partnerships Get Results: the Three Largest Malaria Control Donors in Africa

<table>
<thead>
<tr>
<th>Booster Country</th>
<th>World Bank</th>
<th>Global Fund</th>
<th>USG</th>
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<tr>
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<tr>
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<td>Zambia</td>
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<td>PMI Round 3</td>
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Note: The U.S. President’s Malaria Initiative (PMI) began in 2006 in Round 1 countries, in 2007 in Round 2 countries, and 2008 in Round 3 countries.

Working with Foundations, Civil Society, and NGOs. The World Bank has worked closely with the Bill and Melinda Gates Foundation (BMGF) 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 targets and recommend areas for improvement, while also, where necessary, suggesting reallocations of financial resources to meet changing needs.

The World Bank has continued to work with the 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 BMGF 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 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 DR 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 that they need to know about the progress is 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 G8 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 co-finance 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.

All country units in the Bank’s Africa Region have at least one malaria Booster project, with the exception of AFCS1 and AFCC1. The largest single malaria Booster project is the Stand Alone⁴ project in Nigeria (US$180 million), which alone accounts for 40 percent of the Bank’s entire approved portfolio for malaria control. World Bank malaria control commitments for Nigeria and DR Congo, which together are estimated to share half of the malaria burden in Africa, represent about half of the program’s approved portfolio.

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⁴ Even this project is a malaria plus package project covering other primary and reproductive health activities.
However, given their size, these malaria control commitments in Nigeria and DR Congo are insufficient to support malaria control activities across the whole country. Instead, they target support to specific sub-national 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.

Figure 7: Summary of the Bank’s Malaria Control Portfolio in Africa

The other commitments in the portfolio are spread among 15 other countries. DR Congo, Kenya, Senegal, and Sudan each have two separate malaria Booster projects. The sub-regional 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 old 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 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 FY2006 to 2008 period have been disbursed or obligated. 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 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, US$304 million or 67.5 percent of effective Phase I Booster Program commitments will have been disbursed to support of 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, which mainly consist of technical assistance and strategies to strengthen health systems, have continuous smaller disbursements throughout the life of the project.

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. Purchases 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.

Figure 9: Malaria Control Commodity Disbursements through 2008

Challenges

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

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 due to inefficiencies in procurement, manufacturing, and delivery processes and sometimes to 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 countries. In response, 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. Since 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 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 working in this manner.

_Insufficient Capacity at the Country Level._ Even as scale-up efforts are underway, there is often not enough capacity within Booster countries to implement or scale up projects. Therefore, more resources are needed not just for commodity procurement 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 Working Group on Monitoring and Evaluation (MERG), 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, they 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. Taking a two-pronged approach, the Booster Program is aiming to bring malaria under control while also supporting more general improvements in health systems, including decentralizing budgeting and planning, building capacity throughout the supply chain for procurement and forecasting of commodities, and strengthening M & E.

**Initial Difficulties in Introducing Artemisinin-based Combination Therapies (ACTs).** ACTs are not only 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 taking multiple doses over several days, with the risk that some people may fail to take the full dosage, thus negating its positive benefits. There are some new drug products in the pipeline, and attempts have been made by manufacturers and social marketing experts to develop innovative packaging and advertising that stresses the importance of taking the whole dose to minimize this risk. 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 mono-therapies 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 US 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 Roll Back Malaria 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 over the next five years. This leaves a critical gap of approximately US$10 billion (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.

Figure 10: Funds Available for Malaria Control, 2007

Source: Global Fund Disbursement Reports, Round 6 & 7 Global Fund Proposals
Lessons Learned from Phase I\(^5\)

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:

- 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 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 (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 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, but 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 era, there is a need for a dedicated team 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

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\(^5\) Since 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.
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.
III. Moving Toward Phase II: Context and Challenges

During Phase I of the Booster Program, there have been many technological and political advances 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 Malaria Summit in 2007 hosted by the Gates Foundation, 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 and also for the eradication of malaria to be a long-term goal of the development community. 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 LLINs coupled with increasing access to effective treatment to drive down transmission. With this agreed agenda, the development community and malaria-affected countries re-committed themselves to a concerted 36-month effort to reach the Abuja Targets by 2010.

Figure 11: Malaria Control Goals and Deadlines

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 such regular public health services 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 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” or “SUFI” in the development community.

The 13th Roll Back Malaria Board in Addis Ababa in 2007 endorsed the development of a single integrated Global Malaria Business Plan (GMBP) by the RBM Partnership. The aim of the GMBP 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 "Scaling Up For Impact" strategy and provide strong momentum towards 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 RBM’s efforts against malaria.

It was in this context that several key development leaders, including the World Bank’s 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. This accelerated effort came in response to a recent report (McKinsey and Company, 2008) 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 treatment measures in the 30 hardest hit countries in Africa. In addition, a rapid scale up of these measures in Africa could increase annual economic output by as much as $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 to 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 scaling-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 IRS to help to meet the 2010 targets, to which the Bank subscribed.

**Figure 12: The Coverage of the Malaria Program Scale up and the Reduced Burden of Disease**

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 (NGOs, UN Agencies, the Global Fund, the US Government through the PMI and USAID, the UK 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 to make a comprehensive assessment of their malaria control needs and to 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 to 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 *P. 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 Board of the RBM Partnership 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**

There are some significant challenges at both the global and institutional level of the Bank 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.

While 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.

There has been a 300 percent increase in direct malaria control financing worldwide over the past three years. 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 MIRT is actively working to attract new donors to fund the malaria control efforts in Phase II of the Booster Program.

**Figure 13: The Annual Funding Needed to Control Malaria in Africa**

*Figure 13: The Annual Funding Needed to Control Malaria in Africa*

**Note:** 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. This does not take into account funding projections for the US PMI in 2008 or potential GF Round 8 funding, which would become operational in November 2009.

**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.6

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. 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 inter-governmental organizations working for development in Africa, including the President of the World Bank, re-affirmed their

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6 This support was reiterated by Obiageli Ezekwesili, Vice President, Africa Region, and Joy Phumaphi, Vice President for Human Development, at the Bill and Melinda Gates Malaria Forum and Leadership Summit in Seattle in October 2007 and by the World Bank President Zoellick in Davos in January 2008.
commitment to helping Africa to 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.

Figure 14: The Millennium Development Goals and Malaria

President Zoellick has defined six strategic themes that will underpin the World Bank’s contributions to economic development during his tenure. One of the six themes states: “[The World Bank will be] [p]laying 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 vector-borne diseases (Nguyen et al., 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 is mutually reinforcing and necessary to achieve and maintain positive health outcomes.

As noted in Section I, 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 40 and 30 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 sub-regional 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:

- Rationalizing research and tertiary education across the region to strengthen Africa’s
technical capacity and increase skilled human capital

- Supporting sub-regional networks of national programs and regional expert bodies to monitor the efficacy of drugs and insecticide/pesticides as part of the need for intensive multi-country 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 intra-regional trade and controlling the cross-border movement of substandard and fake antimalarials as well as of subsidized ACTs.

The Booster Program also has the opportunity to leverage the engagement and resources of the IBRD, the IFC, the MIGA, the IDB, and the AfDB.
IV. 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 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 and 30, 2008. The event brought together more than 40 client government representatives, global partners and donors, private sector organizations, NGOs, malaria advocates, and World Bank staff 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 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 Chronology of Events in Annex 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. This phase will span three years (from July 1, 2008 to June 30, 2011) with an evaluation after three years to assess the program, re-allocate 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 Annex 3, the Bank is well equipped to assist countries in strengthening health systems at
the same time as helping to bring down the burden of malaria in Africa. The Booster Program is working with both the US PMI and the 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.

Table 4: Differences between Phase I and Phase II

<table>
<thead>
<tr>
<th>Element</th>
<th>Change from Phase I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Will double from $500 million to at least $1 billion</td>
</tr>
<tr>
<td>Geography</td>
<td>Will provide more resources for countries with high malaria burden and unmet needs and on sub-regions/cross-border areas by taking a strategic rather than an opportunistic approach</td>
</tr>
<tr>
<td>Goal</td>
<td>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</td>
</tr>
</tbody>
</table>
| 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 M&E  
• Strengthened outreach, communications, and advocacy  
• Intensified collaboration among donors, working toward a common approach to controlling malaria at the country level |
Phase II will comprise five related pillars:
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 health systems in Booster countries.

Figure 15: Phase II Conceptual Framework

The Primary Goal of the Pillars – to Eliminate Malaria as a Public Health Threat in Africa

<table>
<thead>
<tr>
<th>Strategic Objective (SO) 1</th>
<th>Strategic Objective (SO) 2</th>
</tr>
</thead>
</table>
| Reduce all cause under-5 mortality by reducing malaria prevalence (malaria is no longer among five leading causes of)
| Reduce all cause under-5 mortality by reducing malaria fatalities (malaria is no longer among five leading causes of) |

PILLAR 1
Regional and cross-border malaria prevention and control

PILLAR 2
Intensified support to high-burden countries with high unmet need (Nigeria and DR Congo)

PILLAR 3
Sustained support to clients and Booster projects developed during Phase I & targeted support to new country projects

PILLAR 4
Facilitation of policies and strategies to increase equitable access to effective malaria treatment

PILLAR 5
Strengthening essential health systems in Booster countries to scale up delivery of malaria control

Support
MIRT support to countries and regions for malaria control projects
World Bank management support for adequate financing, policies, and advocacy for malaria control in Africa
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, TB and Malaria and the U.S. President’s Malaria Initiative. This complementarity is particularly evident in the focus on regional and cross-border control of malaria and health systems strengthening, which has 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 DRC, 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 IDA-15 resources to be available up-front to achieve 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 to increasing access to treatment and to 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 those pillars to ensure that these resources are being spent effectively. Taking these points into account, it is expected that US$1,125 million will be required for Phase II from IDA-15 (see Table 5). 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 5: Draft (Illustrative) Resource Envelope for Phase II Pillars

<table>
<thead>
<tr>
<th>Pillars</th>
<th>Total (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pillar 1</strong></td>
<td>500</td>
</tr>
<tr>
<td><strong>Pillar 2</strong></td>
<td>400</td>
</tr>
<tr>
<td><em>Nigeria</em></td>
<td>300</td>
</tr>
<tr>
<td><em>DR Congo</em></td>
<td>100</td>
</tr>
<tr>
<td><strong>Pillar 3</strong></td>
<td>225</td>
</tr>
<tr>
<td><strong>Pillars 4 and 5</strong></td>
<td><em>Incorporated into Pillars 1, 2, and 3</em></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>1,125</strong></td>
</tr>
</tbody>
</table>
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 (in Annex 4) and in the Phase II Action Plan (in Annex 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 proven 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 sub-regional financing.

The recent Gates Foundation Malaria Summit 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 US Government allocate their development funds on a country-by-country basis, little sub-regional financing exists at the moment. The World Bank has both the leadership potential and the financial power to initiate sub-regional activities, as has been demonstrated effectively 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 leads governments to spread the limited resources available to them throughout the country rather than concentrating 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 towards 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 Region has developed a regional strategy that aims to move the malaria transmission zone gradually northward from Southern Africa (Annex 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 for the Africa region). The MIRT is also working with key internal and external partners to:

- **Identify Main Actors.** Clarify in which institutions the Booster Program should invest, which regional and sub-regional bodies will be needed to coordinate and implement the regional project, and what kind of investments should be made.
- **Strategize Geographically.** Only focus 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 M&E.** Strengthen sub-regional capacity for surveillance and differential diagnosis and standardize the case definition for malaria, create multi-country networks of national M&E teams, and support multi-country 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; asking the African countries themselves to contribute to existing regional efforts. These include: (i) the Southern Africa Development Community’s sub-regional proposal being developed for submission to Round 8 of the Global Fund on July 1, 2008; (ii) the cross-border activities of the 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, TB 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 DR Congo)**

The goal of this pillar is to help high-burden countries to 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—DR Congo and Nigeria, which together account for about 50 percent of Africa’s malaria infections and deaths.

Currently, IDA commitments to Nigeria and DR 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, while 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 DR Congo. These countries are both going to need substantial implementation support from the Bank (with the strong support of the RBM Harmonization Working Group and the proposed Malaria Implementation Support Team) to make the existing monies work. However, as 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 upfront, in line with the front-loaded effort concept, 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.

We know that at least 400 millions of IDA resources will be needed for both countries 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 these two countries and to support 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:

- **The Bank will develop a comprehensive intervention package based on the results of the country assessments carried out in Nigeria and DR Congo by the RBM HWG and will build on the support for malaria control that the Bank already provides in those countries.** It is expected that these reviews 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. They 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.

- The Bank will continue to support malaria control activities as well as strengthening 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. It will also pursue multi-sectoral initiatives where appropriate.

- The Bank will 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.

- The Bank will support capacity building and research and will 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 to understand how best to reap the benefits of these approaches.

- The Bank will continue to leverage the strengths of various partners, taking advantage of its own ability to bring countries and donors together to share information and knowledge. The RBM HWG 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 towards their malaria control targets and the 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 been effective for less than one year, and there are still several projects under development (for example, in Congo, 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 in 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 (for example, as it has done with the Russian Federation) as well as to secure the commitment of new IDA-15 resources.

Nonetheless, there is a need for the World Bank 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 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 6 suggests a way to categorize ongoing and new Booster projects for managerial and planning purposes during Phase II.

<table>
<thead>
<tr>
<th>Category</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>New starts</td>
<td>This will include regional and cross-border projects discussed under Pillar 1 and possibly new country programs depending on demand.</td>
</tr>
<tr>
<td>Increase/expand</td>
<td>The primary focus will be on DR Congo and Nigeria under Pillar 2.</td>
</tr>
<tr>
<td>Continue with additional funding</td>
<td>This may include countries like Zambia where there is a definite interest in continuing to use IDA funds for malaria control.</td>
</tr>
<tr>
<td>Consolidate and exit</td>
<td>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 vis-à-vis funding.</td>
</tr>
<tr>
<td>One-time expenditures</td>
<td>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.</td>
</tr>
</tbody>
</table>

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:
Pillar supporting assessments projects chain entities Therefore, Affordable other supporting The The 46 needed ACTs other interventions Treatment. Even described ¾ ¾ ¾ ¾. 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 towards 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 Section II, 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 IFC, NGOs, and civil society organizations to ensure the successful dialogue between the MIRT and the task team leaders and country teams on each ongoing Booster project to assess and agree on the need for malaria control activities both in the short and long term.

Development of exit strategies for World Bank support 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 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 anti-malarial 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.
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 “usual” 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. While this increased access, particularly in the private sector, is most welcome, this is likely to place a heavy burden on the public sectors of those countries to fund and to 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 re-structured AMFm Taskforce 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:

- Existing and new IDA financing for ACTs will be allocated to support interventions to ensure the safe and successful launch of the AMFm.
- The Bank will increase its support for countries such as Nigeria, where ACTs are already being made available through the private sector.
- 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.

Some key actions that the Bank will take in support of this pillar will be to:

- 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 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 through regulatory enforcement.
- 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 to provide urgent and effective treatment of severe cases of malaria.
Pillar 5—Strengthening of Health Systems in Booster 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 on Africa, the Bank will use its comparative advantages to strengthen health systems in such areas as human resource development, supply chain management and procurement, M & E, planning and budgeting, and governance. Malaria will be used as a tracer for both identifying and addressing systems’ bottlenecks hampering the achievement of health outcomes.

The World Bank aims to complement rather than duplicate the work of the Global Fund and the US Government (through the PMI and USAID), which have traditionally focused much more on procuring commodities than the Bank. The World Bank has particular strengths in the area of financial transfers from national to sub-national 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.

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 Rwanda and Ethiopia led to strengthening critical areas of the health systems thus leading to a dramatic increase in the intake of malaria interventions.
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 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.

Program planning, budgeting and results based financing. The Booster Program will support the expansion and strengthening of sub-national planning and budgeting capacity, including support to results based budgeting and performance based financing when appropriate. Results-based financing (RBF) 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 performance goals. RBF 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, RBF helps focus government and donor attention on outputs and outcomes, for example, 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 long-lasting insecticidal nets in under 5 year old children from 4% to 67% between 2005 and 2008.
Supporting the harmonization of donors’ efforts. This will involve strengthening the relationship between the International Health Partnership’s dual emphasis on strengthening health systems and on disease control. 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) country-level implementation; (ii) global partner-level activities; and (iii) Bank-level institutional accountability.

Supporting Country-level M&E Systems. To advance malaria control efforts at 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 critically important when planning and executing mass LLIN distribution campaigns to achieve nation-wide coverage of nets, sometimes called “catch-up”, and also when LLINs are distributed 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, 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 to permit an appropriate response to be put into action to contain it. Tracking the quality and effectiveness of insecticides and treatment is another critical element so that we are kept informed whether the tools in our arsenal are still useful. Finally, operations research to help contribute to the evidence-base regarding various approaches one might employ is another important aspect to permit that appropriate decisions 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, the development and implementation of M&E operational plans, and the 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.

Supporting M&E of Global-level Efforts. There is a vital need for decision-makers 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. 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 co-chairing the Database Task Force of the MERG, 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 (meaning accurate diagnosis of malaria cases) and resistance-monitoring (of both insecticides and treatment) are becoming increasingly important, Phase II will encourage the establishment of partnerships between countries and institutions so that those which currently have the technical expertise and equipment to do this well can share their knowledge and capacity with others while additional capacity is being built.

Monitoring 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 be in need of additional operations or technical assistance support. Information on
each project will be gathered using a reporting 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 M&E 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 (e.g., nets and treatments), product testing for quality assurance (e.g., 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 and global level malaria control efforts and for tracking the Bank’s contribution toward this end. (See Annex 4 for the current draft of the Phase II Results Framework).

Risks

There are a number of risks associated with the implementation of Phase II as described in the table below.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Risk Mitigation Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient country demand for IDA financing for malaria control because of competing priorities</td>
<td>Ensuring that countries recognize the importance of malaria as a development and health issue</td>
</tr>
<tr>
<td>Decreasing commitment from donors and countries to the malaria control agenda</td>
<td>Continuing to keep malaria control as a major focus of country and regional agendas</td>
</tr>
<tr>
<td>Targeting complex and large countries which require greater financial and human resources than are available</td>
<td>Providing task teams with adequate support for successful preparation and implementation of phase II in those countries. Strengthen M&amp;E capacity in those countries to ensure close monitoring of programs</td>
</tr>
<tr>
<td>Inadequate harmonization among development partners</td>
<td>Supporting formal collaboration mechanisms like the financially and technically RBM Harmonization Working Group</td>
</tr>
</tbody>
</table>
The Cross-sectoral Agenda

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

- **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 non-malarious 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 impact on their ability to learning. 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, and, if they 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 an input into the Africa Region climate change strategy.

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.

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

Over the last three years, 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 towards eliminating it altogether.

Costs of Inaction from the Bank. 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. Clearly without these grants and loans, 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.

As the Bank is the donor with the greatest comparative advantage and track record in fostering and financing regional and cross-border programs and collaboration, 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 DR Congo and Nigeria, which together account for 50 percent of the malaria burden on the African continent. Should the Bank discontinue this support rather than augment it, as anticipated by countries and partners and proposed under Phase II of the Booster Program, this would be likely to dissuade other donors (who have been reluctant to become involved on a large scale in these countries) 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 is likely to increase.

While only one among several major contributors to malaria control in Africa, the Bank 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 for the Bank of 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 has 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 Results Framework (Annex 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 birth weight 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外部ities 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 & 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 scaling up 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.
V. 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 towards 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 it to use its comparative advantages to complement the actions of other partners in pursuing the agreed 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 co-financing malaria control operations in both countries. The flexibility of the Bank’s funding mechanisms is another advantage. For example, 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 it is taken into account in its 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 multi-sectoral 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 much 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 policymakers in all channels of the policy dialogue of the need for a comprehensive response to malaria.

It 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 to 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 DR 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 IHP agenda to ensure that countries allocate enough resources in their national health plans to malaria control 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 M&E 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. It will also be important to develop and strengthen 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 (2008-2011)

Despite significant recent increases in the resources made available for malaria control worldwide, they will not be enough in light of the projected needs (see Figure 13). 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 to sustain their progress and make 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 for Malaria Control, 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 level. In Phase II, the 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 DR Congo. The 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 multi-sectoral 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 Region will need to provide both human and financial resources to prepare and implement Phase II as well as to maintain the ongoing Booster activities. 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 OPCS, the WBI, and the IFC). The MIRT will also capitalize on existing programs such as those dealing with onchocerciasis, 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.
The Booster Program will need the finances and flexibility 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.
VI. 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 the fourth, fifth, and sixth MDGs (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 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 by approximately US$240 million per year. 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 stillbirth, 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 will, thus, 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 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 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 Program committed to timely and efficient implementation of Phase II, the prospects for success are excellent.
References


Annex I: Malaria Scorecard
RESULTS MONITORING MATRIX / MALARIA SCORECARD: Angola to Kenya
(Data as of August 22, 2007)

NB: This work in progress will be adjusted as we move forward with harmonization and more recent information becomes available.

### Committed Finances for July 2005 - June 2010 (US$ millions)

<table>
<thead>
<tr>
<th>Country</th>
<th>WBG 3</th>
<th>Global Fund 4</th>
<th>USG (PMI/USAID) 5</th>
<th>Other external partners 6</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Angola</td>
<td>27.1</td>
<td>8.8 100%</td>
<td>20%</td>
<td>3.2%</td>
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<td>Botswana</td>
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<td>27.6%</td>
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<td>22.0%</td>
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<tr>
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<td>50.5</td>
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<td>55.5%</td>
</tr>
<tr>
<td>DR Congo</td>
<td>3.5</td>
<td>40%</td>
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<td>0.3%</td>
<td>13.8%</td>
</tr>
<tr>
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<td>44%</td>
<td>42.5</td>
<td>7.4%</td>
<td>50.3%</td>
</tr>
<tr>
<td>Eq. Guinea</td>
<td>20.9 70%</td>
<td>25.9 100%</td>
<td>25.9</td>
<td>1.0%</td>
<td>27.9%</td>
</tr>
<tr>
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<td>15%</td>
<td>240.0</td>
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<td>245.6</td>
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<tr>
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<td>25.9 100%</td>
<td>25.9</td>
<td>1.0%</td>
<td>27.9%</td>
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<tr>
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<td>25%</td>
<td>25.9</td>
<td>1.0%</td>
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</tr>
<tr>
<td>Subtotal</td>
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#### Impact Indicators

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<tr>
<th>Country</th>
<th>Commit. % Disb. Commit.</th>
<th>Progress to Date on Abuja Targets 8,9: Percentages</th>
<th>progress on Abuja Targets 7,8,9: Percentages</th>
<th>Notes</th>
</tr>
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<td>Angola</td>
<td>27.1 52% 8.8 100% 1.9 20%</td>
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<td>Benin</td>
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<td>7.4%</td>
</tr>
<tr>
<td>Botswana</td>
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<td>1.3%</td>
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<tr>
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<tr>
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<td>1.3%</td>
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</tr>
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<tr>
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</tr>
<tr>
<td>DR Congo</td>
<td>3.5 40% 13.4</td>
<td>0.3%</td>
<td>0.3%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Djibouti</td>
<td>3.4 44% 42.5</td>
<td>7.4%</td>
<td>7.4%</td>
<td>50.3%</td>
</tr>
<tr>
<td>Eq. Guinea</td>
<td>20.9 70%</td>
<td>25.9 100%</td>
<td>25.9</td>
<td>1.0%</td>
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<tr>
<td>Eritrea</td>
<td>1.0 15% 240.0</td>
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<td>4.2%</td>
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<td>Ghana</td>
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<tr>
<td>Guinea</td>
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<td>7.4%</td>
<td>50.3%</td>
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<tr>
<td>Guinea-Bissau</td>
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<td>25.9 100%</td>
<td>25.9</td>
<td>1.0%</td>
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<td>2.9%</td>
<td>172.4</td>
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</table>

### Footnotes
1. Figures represent funds committed to date.
2. Country funds for malaria control (excluding external funds) as indicated in Global Fund Round 6 applications.
3. Boldface indicates funds are committed but disbursement information not available as of 08/22/07.
4. Country funds for Round 6 projects as of 08/22/07.
5. Figures represent congressional appropriations and agency obligations for USG FY05 through FY06. First round PMI countries since USG FY06 are: Angola, Tanzania and Uganda. Second Round PMI countries to begin in USG FY07 are: Malawi, Mozambique, Rwanda and Senegal.
6. Third Round PMI countries to begin in USG FY08 are: Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Mali, and Zambie.
7. Other donor data may be incomplete, including disbursement information.
8. Values in italics refer to findings from sub-national surveys.
9. Other donor data may be incomplete, including disbursement information.
10. Other donor data may be incomplete, including disbursement information.
## MALARIA SCORECARD: Lesotho to Zimbabwe
(Bar Data as of August 22, 2007)

**NB:** This work in progress will be adjusted as we move forward with harmonization and more recent information becomes available.

<table>
<thead>
<tr>
<th>Country</th>
<th>Country Funds for Malaria</th>
<th>WBG</th>
<th>Global Fund</th>
<th>USG (PMI, USAID)</th>
<th>Other external partners</th>
<th>Total</th>
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<td></td>
<td>Commit. % Disb.</td>
<td>Commit. % Disb.</td>
<td>IDA Disb / Total Disb</td>
<td>Commit. % Disb.</td>
<td>Commit. % Disb.</td>
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<td>0.5 100%</td>
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<td>0.5 100%</td>
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<td>5.6 100%</td>
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<td>141 167 164</td>
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<tr>
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<td>1.5%</td>
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<tr>
<td>Somalia</td>
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<td>6.8 100%</td>
<td>2.6 100%</td>
<td>18.5</td>
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<td>81 225 225</td>
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<td>7.3</td>
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<td>0 63 63</td>
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<td>1.2 100%</td>
<td>1.2</td>
<td>1.1%</td>
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<td>38.3</td>
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<td>14.4 44%</td>
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<td>60.0%</td>
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<td>47 142 139</td>
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<tr>
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<td>141 182 182</td>
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<td>3.3 22%</td>
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<td>4.7%</td>
<td>1 117 132</td>
<td>1 117 132</td>
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<tr>
<td><strong>SubTotal</strong></td>
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<td>194.8</td>
<td>1564.2</td>
<td>84 106 132</td>
<td>205 235 230</td>
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</table>

### Notes

1. Figures represent funds committed to date.
2. Country funds for malaria control (excluding external funds) as indicated in Global Fund Round 6 applications.
3. Bolded values refer to projects which are Board approved; other amounts are indicative. Disbursement information as available through the World Bank Operations Portal, accessed 08/22/07.
5. Figures represent congressional appropriations and agency obligations for USG FY05 through FY06. First round PMI countries since USG FY06 are: PMI: U.S. President’s Malaria Initiative.
6. Other donor data may be incomplete, including disbursement information.
7. Values in italics refer to findings from sub-national surveys.
8. Other donor data may be incomplete, including disbursement information.
9. The World Bank is working with countries and partners to ensure that high quality baseline data will be available for relevant indicators for each country.
10. Treatment with any anti-malarial (Tx); time period not specified.

### Impact Indicators

1. 60% ITN use by children under five
2. 60% of children under five with fever access effective anti-malarial within 24 hours
3. 60% of pregnant women receive IPT (2 doses)
4. % of Eligible Units Up-to-date for Spraying

### Legend

- IPT: Intermittent Preventive Treatment.
- PMI: U.S. President’s Malaria Initiative.
- USG: United States Government.

### Baseline Targets (2000-2010)

- Halve Malaria Mortality by 2010
- Reduce All-Cause Child Mortality
- Reduce All-Cause Maternal Mortality
- Reduce Malaria Mortality
- Reduce Malaria Incidence

### Progress to Date on Abuja Targets 7, 8, 9:

- Increase access to ITNs
- Increase child under-five treatment
- Increase IPT coverage
- Increase spraying coverage
- Increase malaria control

## MALARIA SCORECARD SUPPLEMENT B PROGRAM DATA: Angola to Kenya
(Data as of August 22, 2007)

### Progress to Date on Abuja Targets: Percent, Numbers Affected and Information Source

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent and number of households owning at least one ITN</th>
<th>Percent and number of under fives sleeping under ITN</th>
<th>Percent and number of under fives with fever accessing effective anti-malarial within 24 hours</th>
<th>Number of pregnant women receiving IPT (2 or more doses)</th>
<th>Percent and number of eligible units up-to-date for spraying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>Most Recent Data</td>
<td>Baseline</td>
<td>Most Recent Data</td>
<td>Most Recent Data</td>
<td>Most Recent Data</td>
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<td>63.0% 420,400 MICS 2001</td>
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<tr>
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<tr>
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<td>4.6% 92,000 DHS 2003</td>
<td>40.0% 440,800 DHS 2003</td>
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<td>86.8% 11,500 DHS 2003</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Burundi</strong></td>
<td>1.3% 32,600 MICS 2010</td>
<td>53.1% 376,200 DHS 2004</td>
<td>26.7% 182,800 DHS 2004</td>
<td>26.7% 182,800 DHS 2004</td>
<td>94.5%</td>
</tr>
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<td><strong>Cameroon</strong></td>
<td>1.4% 50,800 DHS 2004</td>
<td>20.0% 133,500 MICS 2001</td>
<td>7.7% 398,800 DHS 2003</td>
<td>7.7% 398,800 DHS 2003</td>
<td>94.5%</td>
</tr>
<tr>
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<td>1.5% 9,500 MICS 2010</td>
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<td>7.2% NA‡</td>
<td>94.5%</td>
</tr>
<tr>
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<td>7.5% 17,400 MICS 2004</td>
<td>7.5% 17,400 MICS 2004</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Comoros</strong></td>
<td>9.3% 10,700 MICS 2010</td>
<td>62.7% 22,500 MICS 2001</td>
<td>96.2% 79,791</td>
<td>96.2% 79,791</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Congo</strong></td>
<td>8.0% 55,000 DHS 2005</td>
<td>48.0% 64,200 DHS 2016</td>
<td>86.8% 11,500 DHS 2003</td>
<td>86.8% 11,500 DHS 2003</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Côte d'Ivoire</strong></td>
<td>1.1% 29,700 MICS 2016</td>
<td>57.5% 476,400 MICS 2016</td>
<td>7.5% 17,400 MICS 2004</td>
<td>7.5% 17,400 MICS 2004</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>DR Congo</strong></td>
<td>0.7% 70,200 MICS 2011</td>
<td>45.4% 1,870,700 MICS 2004</td>
<td>7.5% 17,400 MICS 2004</td>
<td>7.5% 17,400 MICS 2004</td>
<td>94.5%</td>
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<tr>
<td><strong>Djibouti</strong></td>
<td>1.3% 1,400 MICS 2016</td>
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</tr>
<tr>
<td><strong>Eq. Guinea</strong></td>
<td>1.0% 700 MICS 2010</td>
<td>40.0% 8,980 MICS 2006</td>
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<td>96.2% 79,791</td>
<td>94.5%</td>
</tr>
<tr>
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<td>37.3% 290,000 DMR 2005</td>
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<td>7.5% 17,400 DMR 2005</td>
<td>94.5%</td>
</tr>
<tr>
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<td>3.6% 7,400 DHS 2005</td>
<td>7.5% 17,400 DHS 2005</td>
<td>7.5% 17,400 DHS 2005</td>
<td>94.5%</td>
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<tr>
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<td>3.0% 105,200 DHS 2005</td>
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<td>7.5% 17,400 DHS 2005</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Gambia</strong></td>
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<td>56.0% 19,100 MICS 2001</td>
<td>7.5% 17,400 DHS 2005</td>
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<td>7.5% 17,400 DHS 2005</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Guinea</strong></td>
<td>0.5% 7,400 DHS 2005</td>
<td>43.5% 223,100 MICS 2001</td>
<td>7.7% 17,400 DMR 2005</td>
<td>7.7% 17,400 DMR 2005</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Guinea-Bissau</strong></td>
<td>2.0% 19,700 MICS 2001</td>
<td>58.4% 65,500 MICS 2001</td>
<td>7.7% 17,400 DMR 2005</td>
<td>7.7% 17,400 DMR 2005</td>
<td>94.5%</td>
</tr>
<tr>
<td><strong>Kenya</strong></td>
<td>5.9% 443,100 DHS 2003</td>
<td>26.5% 618,700 DHS 2005</td>
<td>7.7% 17,400 DMR 2005</td>
<td>7.7% 17,400 DMR 2005</td>
<td>94.5%</td>
</tr>
</tbody>
</table>

**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.
3. Population estimates (i.e. total population, under five population and live births) were obtained from the United Nations Statistics Division (United Nations Population Division annual/quinquennial estimates and medium variant projections), [http://unstats.un.org/unsd/cdb/cdb_advanced_data_extract.asp](http://unstats.un.org/unsd/cdb/cdb_advanced_data_extract.asp) accessed 08/22/07
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 (Source: United Nations Population Division)] for the year of the survey.
5. The number of live births (Source: United Nations Population Division) the year of the survey is used although this slightly underestimates the population of pregnant women.
6. Data for Rwanda reflect pregnant women receiving at least one dose of IPT.

**Legend**

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

* To obtain this estimate, the prevalence from a sub-national survey was applied to a national population estimate; as this assumption may not be justified, this figure should be interpreted with caution.
† National estimate obtained by pooling results from surveys conducted in six zones using the Lot Quality Assurance Sampling approach, with technical assistance from the World Bank.
‡ Percentage of children under five with fever not available from sub-national survey; the number affected cannot be estimated with precision.
## MALARA SCORECARD SUPPLEMENT B PROGRAM DATA: Lesotho to Zimbabwe
(Data as of August 22, 2007)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent and number of households owning at least one ITN$^a$</th>
<th>Percent and number of under fives sleeping under ITN</th>
<th>Percent and number of under fives with fever accessing effective anti-malarial within 24 hours$^b$</th>
<th>Number of pregnant women receiving IPT$^d$ (2 or more doses)</th>
<th>Percent and number of eligible units up-to-date for spraying</th>
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</thead>
<tbody>
<tr>
<td>Lesotho</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Malawi</td>
<td>27.4% 852,900 DHS 2004 35.0% 1,079,500 MICS 2006</td>
<td>14.8% 347,600 DHS 2004 23.0% 563,400 MICS 2006</td>
<td>27.0% 245,400 DHS 2000 22.7% 197,800 DHS 2004</td>
<td>29.3% 747,500 DHS 2000 46.5% 1,249,300 DHS 2004</td>
<td></td>
</tr>
<tr>
<td>Mali</td>
<td>8.4% 178,700$^*^$</td>
<td></td>
<td>37.6%</td>
<td>MICS 2003</td>
<td></td>
</tr>
<tr>
<td>Mauritania</td>
<td>0.6% 2,700 DHS 2003-04</td>
<td>2.1% 9,200 DHS 2003-04</td>
<td>33.4% 55,100 DHS 2003-04 11.8% 19,500 DHS 2003-04</td>
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<td></td>
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<tr>
<td>Mozambique</td>
<td>42.2% 1,688,800 DHS 2003</td>
<td>9.7% 332,600 DHS 2003</td>
<td>14.9% 136,400 DHS 2003 8.3% 76,000 DHS 2003</td>
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<td></td>
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<tr>
<td>Namibia</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Niger</td>
<td>43.0% 955,300 DHS 2005</td>
<td>1.0% 22,300 MICS 2000 7.4% 202,500 DHS 2005</td>
<td>48.1% 445,600 MICS 2000 24.9% 182,600 DHS 2005</td>
<td>1.1% 301,800 DHS 2005</td>
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<td>Nigeria</td>
<td>2.2% 502,500 DHS 2005</td>
<td>1.2% 279,800 DHS 2005</td>
<td>33.9% 2,498,200 DHS 2003 24.9% 1,834,900 DHS 2003</td>
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<td>Rwanda</td>
<td>14.7% 285,100 DHS 2003</td>
<td>5.0% 67,400 MICS 2000 13.0% 202,500 DHS 2005</td>
<td>12.6% 56,700 MICS 2000 2.5% 10,200 DHS 2005</td>
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<td>Sao Tome/Principe</td>
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<td>Senegal</td>
<td>20.2% 275,300 DHS 2003</td>
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<td>36.2% 125,600 MICS 2003 12.2% 68,400 DHS 2003</td>
<td>10.1% 209,800 DHS 2003</td>
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<td>Sierra Leone</td>
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<td>2.6% 33,800 MICS 2000</td>
<td>60.7% 217,800 MICS 2003 40.0% 106,100 MICS 2003</td>
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<td>South Africa</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>1.9% 101,200$^*^$</td>
<td></td>
<td>50.2% 553,700$^*^$</td>
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<tr>
<td>Swaziland</td>
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<td>25.5% 1,500 MICS 2001</td>
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<tr>
<td>Tanzania</td>
<td>1.3% 88,000 DHS 1999 22.6% 1,730,000 DHS 2006</td>
<td>2.1% 122,500 DHS 1999 16.0% 1,059,900 DHS 2006</td>
<td>53.4% 1,093,200 DHS 2006 49.3% 796,800 DHS 2006</td>
<td>21.7% 1,609,300 DHS 2004</td>
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</tr>
<tr>
<td>Togo</td>
<td>2.0% 18,400 MICS 2000</td>
<td></td>
<td>60.0% 199,800 MICS 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td>16.9% 85.807 DHS 2006</td>
<td>0.2% 10,100 MICS 2000 8.7% 567,500 DHS 2006</td>
<td>61.3% 1,466,900 DHS 2006 28.9% 691,600 DHS 2006</td>
<td>17.6% 1,550,700 DHS 2006</td>
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<tr>
<td>Zambie</td>
<td>13.6% 284,300 DHS 2006</td>
<td>6.5% 124,400 DHS 2006</td>
<td>22.8% 458,400 MICS 2006 8.7% 51,100 MICS 2006</td>
<td>61.9% 1,431,100 MICS 2006</td>
<td>27.0% 536 MICS 2006</td>
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<tr>
<td>Zimbabwe</td>
<td>8.5% 249,900 DHS 2006</td>
<td>2.9% 49,600 DHS 2006</td>
<td>4.7% 6,000 DHS 2006 3.4% 4,400 DHS 2006</td>
<td>6.8% 128,800 MICS 2006</td>
<td></td>
</tr>
</tbody>
</table>

### 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.
3. Population estimates (i.e. total population, under five population and live births) were obtained from the United Nations Statistics Division (United Nations Population Division annual/quinquennial estimates and medium variant projections), http://unstats.un.org/unsd/dthd/nvbd_advanced_data_extract.asp (codes 13680, 13681 and 13595) accessed 08/23/07.
4. Estimates of the total number of households were calculated by World Bank staff: [total population estimate for the survey year (Source: United Nations Population Division)] divided by [the average household size (Source: most recent DHS)].
5. 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 (Source: United Nations Population Division)] for the year of the survey.
6. Treatment with any anti-malarial (Tx); time period not specified.
7. The number of live births (Source: United Nations Population Division) the year of the survey is used to approximate the population of pregnant women.
8. Data for Rwanda reflect pregnant women receiving at least one dose of IPT.
9. To obtain this estimate, the prevalence from a sub-national survey was applied to a national population estimate; as this assumption may not be justified, this figure should be interpreted with caution.
10. National estimate obtained by pooling results from surveys conducted in six zones using the Lot Quality Assurance Sampling approach, with technical assistance from the World Bank.
11. Percentage of children under five with fever not available from sub-national survey; the number affected cannot be estimated with precision.
## Economic Information

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Angola</td>
<td>20,108</td>
<td>1.9%</td>
<td>2,786,000</td>
<td>13,930,000</td>
<td>17,024,100</td>
<td>2,566,600</td>
<td>3,158,800</td>
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<td>4,075</td>
<td>4.9%</td>
<td>1,389,800</td>
<td>7,272,200</td>
<td>9,032,800</td>
<td>1,281,700</td>
<td>1,524,300</td>
<td>3,404,800</td>
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<td>Botswana</td>
<td>8,659</td>
<td>6.4%</td>
<td>421,700</td>
<td>1,729,900</td>
<td>1,881,500</td>
<td>222,000</td>
<td>218,700</td>
<td>3,404,800</td>
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<tr>
<td>Burkina Faso</td>
<td>4,824</td>
<td>6.1%</td>
<td>1,828,000</td>
<td>11,881,800</td>
<td>14,784,300</td>
<td>2,240,000</td>
<td>2,667,700</td>
<td>3,404,800</td>
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<tr>
<td>Burundi</td>
<td>657</td>
<td>3.2%</td>
<td>1,282,300</td>
<td>6,668,100</td>
<td>8,508,200</td>
<td>1,194,000</td>
<td>1,554,800</td>
<td>3,404,800</td>
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<td>Cameroon</td>
<td>14,733</td>
<td>5.2%</td>
<td>3,304,300</td>
<td>15,860,800</td>
<td>18,549,200</td>
<td>2,505,500</td>
<td>2,840,300</td>
<td>3,404,800</td>
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<tr>
<td>Cape Verde</td>
<td>948</td>
<td>5.2%</td>
<td>98,000</td>
<td>450,600</td>
<td>530,400</td>
<td>64,800</td>
<td>73,200</td>
<td>3,404,800</td>
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<tr>
<td>CAR</td>
<td>1,331</td>
<td>4.1%</td>
<td>743,000</td>
<td>3,863,700</td>
<td>4,342,700</td>
<td>632,800</td>
<td>675,200</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Chad</td>
<td>4,285</td>
<td>4.2%</td>
<td>1,576,700</td>
<td>8,465,400</td>
<td>10,780,600</td>
<td>1,580,300</td>
<td>1,981,300</td>
<td>3,404,800</td>
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<tr>
<td>Comoros</td>
<td>367</td>
<td>2.8%</td>
<td>111,000</td>
<td>699,000</td>
<td>839,200</td>
<td>115,500</td>
<td>129,500</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Congo</td>
<td>4,384</td>
<td>2.5%</td>
<td>616,000</td>
<td>3,202,900</td>
<td>3,768,100</td>
<td>508,500</td>
<td>590,800</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>15,286</td>
<td>3.8%</td>
<td>3,099,900</td>
<td>17,049,200</td>
<td>20,147,500</td>
<td>2,968,700</td>
<td>2,870,300</td>
<td>3,404,800</td>
</tr>
<tr>
<td>DR Congo</td>
<td>6,571</td>
<td>4.0%</td>
<td>7,920,100</td>
<td>50,688,700</td>
<td>62,635,500</td>
<td>9,673,600</td>
<td>11,804,500</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Djibouti</td>
<td>663</td>
<td>6.3%</td>
<td>128,000</td>
<td>729,700</td>
<td>833,000</td>
<td>105,100</td>
<td>107,500</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Eq. Guinea</td>
<td>3,235</td>
<td>1.6%</td>
<td>71,800</td>
<td>430,600</td>
<td>575,500</td>
<td>72,100</td>
<td>82,500</td>
<td>3,404,800</td>
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<tr>
<td>Eritrea</td>
<td>925</td>
<td>4.5%</td>
<td>767,600</td>
<td>3,684,300</td>
<td>4,850,800</td>
<td>624,300</td>
<td>829,400</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>8,077</td>
<td>5.3%</td>
<td>14,455,900</td>
<td>69,388,400</td>
<td>83,099,200</td>
<td>12,352,600</td>
<td>13,670,600</td>
<td>3,404,800</td>
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<tr>
<td>Gabon</td>
<td>7,228</td>
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<td>246,500</td>
<td>1,182,300</td>
<td>1,370,500</td>
<td>156,900</td>
<td>159,000</td>
<td>3,404,800</td>
</tr>
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<td>Gambia</td>
<td>415</td>
<td>6.8%</td>
<td>177,500</td>
<td>1,384,100</td>
<td>1,708,700</td>
<td>230,200</td>
<td>263,200</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Ghana</td>
<td>8,620</td>
<td>6.7%</td>
<td>5,036,900</td>
<td>20,147,500</td>
<td>23,478,400</td>
<td>2,976,100</td>
<td>3,205,100</td>
<td>3,404,800</td>
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<tr>
<td>Guinea</td>
<td>3,508</td>
<td>5.3%</td>
<td>1,242,800</td>
<td>8,202,600</td>
<td>9,370,100</td>
<td>1,413,900</td>
<td>1,568,100</td>
<td>3,404,800</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>280</td>
<td>4.8%</td>
<td>210,800</td>
<td>1,370,500</td>
<td>1,695,000</td>
<td>265,700</td>
<td>333,200</td>
<td>3,404,800</td>
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<tr>
<td>Kenya</td>
<td>15,600</td>
<td>4.1%</td>
<td>10,722,800</td>
<td>13,251,900</td>
<td>17,537,700</td>
<td>5,081,600</td>
<td>6,327,400</td>
<td>3,404,800</td>
</tr>
</tbody>
</table>

### Notes

1. Source: World Bank Group World Development Indicators (WDI) 2007. Figures are in current US$.<br>
4. Population estimates (i.e. total population, under five population and live births) were obtained from the United Nations (UN) Statistics Division (UN Population Division annual/quinquennial estimates and medium variant projections) and rounded to the nearest hundredth (http://unstats.un.org/unsd/cdb/cdb_data.cfm?did=13660, 13680 and 13590) accessed 08/22/07.<br>
5. Source: UN Statistics Division (UN Population Division annual estimate/medium variant projection) divided by [average household size (Source: most recent Demographic and Health Survey (ORC Macro))].<br>
6. Source: UN Statistics Division (UN Population Division annual estimate/medium variant projection) divided by [average household size (Source: most recent Demographic and Health Survey (ORC Macro))].<br>
## MALARIA SCORECARD SUPPLEMENT C BACKGROUND INFORMATION: Lesotho to Zimbabwe
(Data as of August 22, 2007)

### Economic Information

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP ¹ (US$ millions)</th>
<th>Total expenditure on health ² as % of GDP ² (2004)</th>
<th>Number of Households ⁴</th>
<th>Total Population ¹</th>
<th>Under Five Population ⁶</th>
<th>Pregnant Women Population ⁸</th>
<th>Number of Units Eligible for Spraying ⁵</th>
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<tbody>
<tr>
<td>Lesotho</td>
<td>1,375.2</td>
<td>6.5%</td>
<td>483,464</td>
<td>1,885,509</td>
<td>2,007,833</td>
<td>278,337</td>
<td>271,506</td>
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<td>Liberia</td>
<td>448.2</td>
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<td>614,216</td>
<td>7,050,033</td>
<td>3,750,264</td>
<td>579,977</td>
<td>730,453</td>
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<td>Sao Tome/Principe</td>
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<td>24,631</td>
<td>140,131</td>
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<td>12,378,532</td>
<td>1,692,703</td>
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<tr>
<td>Sierra Leone</td>
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<td>3.3%</td>
<td>729,266</td>
<td>8,946,108</td>
<td>5,865,872</td>
<td>781,115</td>
<td>1,010,277</td>
</tr>
<tr>
<td>Somalia</td>
<td>NA</td>
<td>NA</td>
<td>1,216,392</td>
<td>8,698,534</td>
<td>11,225,951</td>
<td>1,298,815</td>
<td>1,536,666</td>
</tr>
<tr>
<td>South Africa</td>
<td>212,777.3</td>
<td>8.6%</td>
<td>10,809,114</td>
<td>45,398,280</td>
<td>47,864,764</td>
<td>5,180,817</td>
<td>5,213,350</td>
</tr>
<tr>
<td>Sudan</td>
<td>19,559.0</td>
<td>4.1%</td>
<td>5,749,763</td>
<td>33,348,627</td>
<td>38,560,492</td>
<td>5,328,468</td>
<td>5,353,360</td>
</tr>
<tr>
<td>Swaziland</td>
<td>2,422.9</td>
<td>6.3%</td>
<td>167,966</td>
<td>5,403,039</td>
<td>5,858,146</td>
<td>919,731</td>
<td>1,057,215</td>
</tr>
<tr>
<td>Tanzania</td>
<td>6,833.3</td>
<td>7.6%</td>
<td>5,143,678</td>
<td>24,899,655</td>
<td>30,883,807</td>
<td>4,909,013</td>
<td>6,040,020</td>
</tr>
<tr>
<td>Togo</td>
<td>2,061.0</td>
<td>5.5%</td>
<td>1,000,563</td>
<td>11,219,471</td>
<td>12,509,039</td>
<td>1,057,215</td>
<td>1,232,943</td>
</tr>
<tr>
<td>Uganda</td>
<td>6,383.3</td>
<td>7.6%</td>
<td>6,176,761</td>
<td>24,899,655</td>
<td>30,883,807</td>
<td>4,909,013</td>
<td>6,040,020</td>
</tr>
<tr>
<td>Zambia</td>
<td>5,388.6</td>
<td>6.3%</td>
<td>2,009,785</td>
<td>10,450,880</td>
<td>11,922,003</td>
<td>1,861,976</td>
<td>2,028,194</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>NA</td>
<td>7.5%</td>
<td>3,013,449</td>
<td>26,654,484</td>
<td>33,349,436</td>
<td>1,783,682</td>
<td>1,716,648</td>
</tr>
</tbody>
</table>

### Notes

3. Population estimates (i.e. total population, under five population and live births) were obtained from the United Nations (UN) Statistics Division (UN Population Division annual/quinquennial estimates and medium variant projections) and rounded to the nearest hundred.[http://unstats.un.org/unsd/cdb/cdb_series_xrxx.asp?series_code=13660, database last updated 07/19/07](http://unstats.un.org/unsd/cdb/cdb_series_xrxx.asp?series_code=13660, database last updated 07/19/07)
4. Calculation by World Bank staff: (total population estimate for 2000/2007 (Source: UN Statistics Division (UN Population Division annual estimate/medium variant projection))]*[average household size (Source: most recent Demographic and Health Survey (ORC Macro))] ²
6. Calculation by World Bank staff: [prevalence of fever among children under five (from relevant survey)] *times [under five population for 2000/2007 (see note 6 above)]
## Annex 2: Chronology of Phase II Development

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Key Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>September - November 2007</td>
<td>Development of Concept Note</td>
<td>Concept Note outlining the key pillars developed by the MIRT and distributed to the High-level Advisory Committee. The committee comprised key WB partners in malaria control.</td>
</tr>
<tr>
<td>December 13, 2007</td>
<td>First consultation with High-level Advisory Committee (via teleconference)</td>
<td>Received preliminary input and comments on the Concept note. Broad Recommendations: Lessons learned for each proposed Phase II pillar should be explicitly stated, follow-up support to ongoing Booster countries should be added as a separate pillar, agreement that WB has a comparative advantage to promote regional and cross-border approaches, rename Pillar 2 so that other countries are not excluded, expand Pillar 3 to supporting access to effective malaria treatment (not just AMFm). These recommendations were integrated into the concept note.</td>
</tr>
<tr>
<td>January 14, 2008</td>
<td>Second consultation with High-Level Advisory Committee (via teleconference)</td>
<td>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 RBM Partnership (such as IHP), and focus on SUFI. These recommendations were integrated into the concept note.</td>
</tr>
<tr>
<td>January 29-30, 2008</td>
<td>Two-day final consultation with key stakeholders in Washington, DC</td>
<td>This meeting brought together more than 40 stakeholders including senior government representatives, global partners and donors, the private sector, NGOs, advocates, and WB staff. 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.</td>
</tr>
<tr>
<td>February 2008</td>
<td>Development of first draft of the Phase II strategy paper</td>
<td>The Draft Phase II strategy was revised to incorporate additional input from the consultation.</td>
</tr>
<tr>
<td>May 2008</td>
<td>Revised draft of Phase II strategy presented to the WB Africa Region VP</td>
<td>The Draft Phase II strategy was revised to incorporate comments and input from the VP.</td>
</tr>
<tr>
<td>July 2, 2008</td>
<td>Presentation of Phase II strategy to WB AFR Senior Leadership Team for technical discussion</td>
<td>The Phase II strategy was further refined based on the input of the Senior Leadership Team.</td>
</tr>
</tbody>
</table>
Annex 3: Three Largest Financiers of Malaria Control and their Comparative Advantages

<table>
<thead>
<tr>
<th>THREE LARGEST FINANCIERS OF MALARIA CONTROL</th>
<th>WORLD BANK</th>
<th>GLOBAL FUND</th>
<th>PMI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funds Committed (Timeframe)</strong></td>
<td>US$470 million in Africa (2005-2008) US$200 million in India (2008-)</td>
<td>Total funding (through Round 7) of two-year grants is $1.8 billion and $3.7 billion for five year grants.</td>
<td>US$1.2 billion (2005-2010)</td>
</tr>
<tr>
<td><strong>Funding Mechanism</strong></td>
<td>Provides loans and grants (IDA) directly to governments at their request. IDA support may be supplemented by trust funds.</td>
<td>Provides grants to principal recipients in countries after independent review of applications. Funding is dependent on grant performance.</td>
<td>Through a Congressionally approved budget, PMI provides fiscal year funding.</td>
</tr>
<tr>
<td><strong>Regions</strong></td>
<td>Primarily in Africa Secondarily in South Asia</td>
<td>All regions, 78 countries, 146 separate malaria grants</td>
<td>Africa (15 focus countries)</td>
</tr>
</tbody>
</table>
| **Approach**                                | Supports the implementation of national malaria control plans and the strengthening of health systems. Financing managed by governments. WB 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 managed by an in-country PMI team consisting of staff from USAID and the Centers for Disease Control and Prevention (CDC), and 40-50% of the budget is spent on commodities.  
Supports four key intervention areas – indoor spraying of homes with insecticides, insecticide-treated mosquito nets, antimalarial drugs, and prevention of malaria in pregnant women. Also supports commodity logistics management and M&E, as well as IEC/BCC, training and supervision related to interventions. |
<table>
<thead>
<tr>
<th>Technical Assistance</th>
<th>WORLD BANK</th>
<th>GLOBAL FUND</th>
<th>PMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries may spend project funds to purchase technical assistance. Supplemental assistance for planning, implementation, and M&amp;E provided by the MIRT and its consultants.</td>
<td>Relies on its partners to provide technical assistance to grantees. Funds to pay for such technical assistance can be included in the grant.</td>
<td>CDC provides technical support for PMI. Additional technical support is available through a US $1 million grant to RBM’s Sub-regional Network. Countries may also spend project funds to purchase technical assistance.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comparative Advantages</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ IDA flexibility (allows for reallocation of resources to fill gaps)</td>
<td>▪ 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.</td>
<td>▪ 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.</td>
<td></td>
</tr>
<tr>
<td>▪ Has relationships with Ministries of Finance as well as with sector ministries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Financial incentives (2-1 matching funds) for regional collaboration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Capacity to support multi-sector projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Convening power at national and regional levels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Economic analysis and innovative financing.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partnership</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Takes a leadership role in Nigeria and DR Congo, economics and financing, and getting partners to support regional programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Mobilizes and manages resources from non-traditional partners and the private sector</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 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 Malaria Booster Program in Phase II and the goal of the program. The RF describes these links using graphs and tables to communicate the logical pathway from the Bank’s activities to its goals.

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. Above the Bank’s services in the pyramid are the typical Outputs of those services; outputs are essentially the counts of services we expect to be received by the beneficiaries of the Bank’s services---countries, regions, and individuals. Above the outputs in the RF pyramid are the Expected Results. The expected results is the change in health behaviors, utilization of services, and health systems strengthening that is expected to result from the service outputs displayed on the RF immediately below the expected results. These results have a scientific basis for leading to the Strategic Objectives of the World Bank Booster Program: (1) improved prevention; and/or (2) improved treatment of malaria. 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.

Distinguishing contribution from attribution
Note that World Bank services and support areas not expected to be sufficient alone to achieve the Outputs, Results, Strategic Objectives and the Goal listed in the RF. What is expected is that the Bank’s services will contribute substantially in those geographic areas the Bank is targeting. The Bank works together 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**

The World Bank Booster Program in Phase II will be 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 Scale Up for Impact and to implement an exit strategy for some Phase I countries without any harmful interruptions of services, and 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 1-3 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 to 4. Strengthening the health system in Booster countries is necessary for enabling the scale up 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 RF. 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.
# Results Framework Glossary

<table>
<thead>
<tr>
<th><strong>Goal</strong></th>
<th>The overall purpose of the Booster Program: that malaria will no longer be considered a public health threat or problem in Booster Program areas. The Booster Program is not expected to be sufficient alone for achieving the Goal. In addition, the Goal may require effort beyond the time period of the Booster Program.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Objectives</strong></td>
<td>The primary reasons for the services provided by the World Bank in its Booster Program: (1) reduced malaria prevalence and/or (2) reduced malaria case fatality, leading to an overall lower under-five mortality rate. Conceptually, the results listed in the framework will support accomplishment of these two strategic objectives. It is expected that upon accomplishing these objectives, malaria will no longer be among the top 5 leading causes of under-five mortality in countries where the Booster Program is present. World Bank support is not expected to be sufficient alone to achieve the strategic objectives in those geographic areas the Bank is targeting, but a necessary contribution.</td>
</tr>
<tr>
<td><strong>Expected Results</strong></td>
<td>The change in health behaviors, utilization of services, and health systems strengthening that is expected to result from the service outputs listed in the framework (along with the various contributions from other partners such as training and supervision of health workers). These include both outcomes and higher level outputs than the service outputs listed below. These results have a scientific basis for leading to improved prevention and/or treatment of malaria. World Bank support is not expected to be sufficient alone to achieve the listed results in those geographic areas the Bank is targeting, but a necessary contribution.</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>A count of services (or an indication of achievement) provided with the support of World Bank services. World Bank support is not expected to be sufficient alone to achieve the listed outputs but a necessary contribution.</td>
</tr>
<tr>
<td><strong>World Bank Support</strong></td>
<td>Lending and non-lending services provided by the World Bank that contribute—along with the efforts of many partners—to the goal of eliminating malaria as a public health threat in Africa.</td>
</tr>
</tbody>
</table>
Goal: Eliminate Malaria as a Public Health Threat in Africa

Bank Strategic Objectives for Malaria

SO 1
Reduce all cause < 5 mortality via reduced malaria prevalence
(Malaria is no longer among 5 leading causes of child mortality)

SO 2
Reduce all cause < 5 mortality via reduced malaria case fatality
(Malaria is no longer among 5 leading causes of child mortality)

Expected Results

R 1
Increased ITN coverage/use during previous night by households, <5s, pregnant women

R 2
Increased IRS coverage of targeted households

R 3
Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

R 4
Increased number of children <5yrs with fever who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

R 5
Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

R 6
Increased number of pregnant women receiving malaria in pregnancy interventions

Outputs

4 REGIONAL OUTPUTS

10 COUNTRY LEVEL OUTPUTS

8 HEALTH SYSTEMS STRENGTHENING OUTPUTS

PILLAR 1
Regional and cross border malaria prevention and control

PILLAR 2
Intensified support to high burden countries with high unmet need (Nigeria and DRC)

PILLAR 3
Sustained support to clients and Booster projects developed during Phase I & targeted support to new countries

PILLAR 4
Facilitation of policies and strategies to increase equitable access to effective malaria treatment

PILLAR 5
Strengthening essential health systems in Booster countries to scale up delivery of malaria control

Booster Program Support to Pillar 1-5

World Bank Support to Booster Program

Adequate World Bank Financing to MIRT

IDA & Other Financing of Booster Projects

Operational matrix for monitoring of Phase II MBP by MIRT
Goal: Eliminate Malaria as a Public Health Threat in Selected Regional Clusters of Countries

Pillar 1 Strategic Objectives

**SO 1**
Reduce all cause < 5 mortality **via reduced malaria prevalence**  
(Malaria is no longer among 5 leading causes of child mortality)

**SO 2**
Reduce all cause < 5 mortality **via reduced malaria case fatality**  
(Malaria is no longer among 5 leading causes of child mortality)

Expected Results

**R 1**  
Increased ITN coverage/use during previous night by households, <5s, pregnant women

**R 2**  
Increased IRS coverage of targeted households in each cluster country

**R 3**  
Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

**R 4**  
Increased number of children <5yrs who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

**R 5**  
Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

Typical Outputs

**REGIONAL OUTPUT 1**  
Increased number of synchronized campaigns to distribute ITNs with accompanying BCC campaigns

**REGIONAL OUTPUT 2**  
Increase the number of coordinated IRS campaigns in targeted households with accompanying BCC campaigns

**REGIONAL OUTPUT 3**  
Increase the number of regional cluster partnerships active in planning/management of Regional/Cross-border Malaria Activities

**REGIONAL OUTPUT 4**  
Increase the number of regional cluster partnerships that participate in a regional network that monitors/reports on drug and insecticide resistance

**REGIONAL OUTPUT 5**  
Increase the number of malaria outbreaks detected and responded to.

**HS OUTPUT 4**  
Increase the number of operations research activities that identify best malaria control practices and that are presented to stakeholders

Booster Program Support to Pillar 1

- Technical Support for Projects (Design, decentralized planning, budgeting, implementation)
- Build Regional partnerships with endemic countries government units, funding agencies, across Sectors
- Additional Resource Mobilization Effort by MIRT
- Support Training in Procurement/Supply Chain Management (ITNs, ACTs, IRS, RTDs)

World Bank Support to Booster Program

- Adequate World Bank Financing to MIRT
- IDA Financing through Regional Integration Strategy
Goal: Eliminate Malaria as a Public Health Threat in High-Burden Countries

Pillar 2 Strategic Objectives

- **SO 1**  
  Reduce all cause < 5 mortality via reduced malaria prevalence  
  (Malaria is no longer among 5 leading causes of child mortality)

- **SO 2**  
  Reduce all cause < 5 mortality via reduced malaria case fatality  
  (Malaria is no longer among 5 leading causes of child mortality)

Expected Results

- **R 1**  
  Increased ITN Coverage/Use during Previous Night by households, <5s, pregnant women

- **R 2**  
  Increased IRS Coverage of targeted households

- **R 3**  
  Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

- **R 4**  
  Increased number of children <5yrs with fever who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

- **R 5**  
  Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

- **R 6**  
  Increased number of pregnant women receiving malaria in pregnancy interventions (IPT2, 4+ ANC visits, ITN)

Typical Outputs

- **OUTPUT 1**  
  Increased number of ITNs distributed with accompanying IEC/BCC campaigns

- **OUTPUT 2**  
  Increased number of targeted households receiving IRS with accompanying BCC campaigns

- **OUTPUT 3**  
  An NMCP active in collaborative planning/management of Malaria Activities with other health units, other sectors, funding agencies

- **OUTPUT 4**  
  Increase the number of countries that have carried out a comprehensive assessment for the purpose of improving malaria control programs.

- **OUTPUT 4**  
  Increase the number of operations research activities that identify best malaria control practices and that are presented to stakeholders

- **OUTPUT 5**  
  Sentinel Surveillance monitors drug and insecticide resistance and reports according to national standard

- **OUTPUT 6**  
  Increase the number of ACT doses distributed to service delivery points with accompanying IEC/BCC counseling

- **OUTPUT 7**  
  Increase the number of ANC IPT Doses Distributed (SP) with accompanying IEC/BCC/ counseling

Booster Program Support to Pillar 2

- Build partnerships with endemic countries government units, funding agencies, across Sectors
- Additional Resource Mobilization Effort by MIRT
- Support Training in Procurement/Supply Chain Management (ITNs, ACTs, IRS, RTDs)

World Bank Support to Booster Program

- Adequate World Bank Financing to MIRT
- IDA & Other Financing of Booster Projects
**Goal:** Eliminate Malaria as a Public Health Threat in Phase I Booster Countries (and in New Countries with Targeted Support)

### Pillar 3 Strategic Objectives

**SO 1**
Reduce all cause < 5 mortality **via reduced malaria prevalence**
(Malaria is no longer among 5 leading causes of child mortality)

**SO 2**
Reduce all cause < 5 mortality **via reduced malaria case fatality**
(Malaria is no longer among 5 leading causes of child mortality)

### Expected Results

- **R 1**
  Increased ITN Coverage/Use during Previous Night by households, <5s, pregnant women

- **R 2**
  Increased IRS Coverage of targeted households

- **R 3**
  Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

- **R 4**
  Increased number of children <5yrs with fever who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

- **R 5**
  Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

- **R 6**
  Increased number of pregnant women receiving malaria in pregnancy interventions (IPT2, 4+ ANC visits, ITN)

### Typical Outputs

- **OUTPUT 1**
  Increased number of ITNs distributed with accompanying IEC/BCC campaigns

- **OUTPUT 2**
  Increased number of targeted households receiving IRS with accompanying BCC campaigns

- **OUTPUT 3**
  An NMCP active in collaborative planning/management of Malaria Activities with other health units, other sectors, funding agencies

- **OUTPUT 4**
  Increase the number of countries that have carried out a comprehensive assessment for the purpose of improving malaria control programs.

- **OUTPUT 5**
  Sentinel Surveillance monitors drug and insecticide resistance and reports according to national standard

- **OUTPUT 6**
  Increase the number of ACT doses distributed to service delivery points with accompanying IEC/BCC

- **OUTPUT 7**
  Increase the number of ANC IPT Doses Distributed (SP) with accompanying IEC/BCC/ counseling

### Booster Program Support to Pillar 3

- Build partnerships with endemic countries government units, funding agencies, across Sectors
- Additional Resource Mobilization Effort by MIRT
- Support Training in Procurement/Supply Chain Management (ITNs, ACTs, IRS, RTDs)

### World Bank Support to Booster Program

- Adequate World Bank Financing to MIRT
- IDA & Other Financing of Booster Projects
Goal: Eliminate Malaria as a Public Health Threat in Booster Countries by Increased Access to Tx

Pillar 4 Strategic Objective

SO 2
Reduce all cause < 5 mortality via reduced malaria case fatality
(Malaria is no longer among 5 leading causes of child mortality)

Expected Results

R 3
Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

R 4
Increased number of children <5yrs with fever who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

R 5
Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

Typical Outputs

OUTPUT 3
An NMCP active in collaborative planning/management of Malaria Activities with other health units, other sectors, funding agencies

OUTPUT 4
Increase the number of countries that have carried out a comprehensive assessment for the purpose of improving malaria control programs.

OUTPUT 6
Increase the number of ACT doses distributed to service delivery points with accompanying IEC/BCC

OUTPUT 8
Increase in the number of Booster countries with a local producer that is pre-qualified by WHO to produce quality ACTs

OUTPUT 9
Reduction in number of medicine sellers providing chloroquine, and increase in the number selling ACTs

OUTPUT 10
Increase in the number of Community Health Workers trained, equipped & authorized to provide ACTs (including designated supervisor)

Booster Program Support to Pillar 4

Technical Support for Projects
(Design, decentralized planning, budgeting, Implementation)

Build partnerships with endemic countries government units, funding agencies, across Sectors

M&E Support (Needs Assessment, Costed M&E Framework, Assess Coverage/Quality of Malaria Services, Support for Surveillance and Op. Research, Use of Data)

Additional Resource Mobilization Effort by MIRT

Support Training in Procurement/Supply Chain Management (ITNs, ACTs, IRS, RTDs)

World Bank Support to Booster Program

Adequate World Bank Financing to MIRT

IDA & Other Financing of Booster Projects
Goal: Eliminate Malaria as a Public Health Threat in Booster Countries through Health Systems Strengthening

Pillar 5: Strategic Objectives

SO 1
Reduce all cause < 5 mortality via reduced malaria prevalence
(Malaria is no longer among 5 leading causes of child mortality)

SO 2
Reduce all cause < 5 mortality via reduced malaria case fatality
(Malaria is no longer among 5 leading causes of child mortality)

Expected Results

R 1
Increased ITN Coverage/Use during Previous Night by households, <5s, pregnant women

R 3
Strategic and/or tactical changes in malaria programming made in response to appropriate M&E data

R 4
Increased number of children <5yrs with fever who received treatment with an effective antimalarial within 24hrs of onset of symptoms per national norms

R 5
Increased number of children with fever <5yrs who receive diagnostics & treatment according to national standard at a Health Facility

R 6
Increased number of pregnant women receiving malaria in pregnancy interventions (IPT2, 4+ ANC visits, ITN)

Typical Health Systems Strengthening Outputs

HS OUTPUT 1
Increase the number of Booster countries with a functioning supply chain management information system for labs & pharmacies

HS OUTPUT 2
Increase the number of Booster countries that have conducted a Health Systems Strengthening Needs Assessment to identify core bottlenecks

HS OUTPUT 3
Increase the number of countries with sub-national level unit active in collaborative planning/management of malaria activities with other health units, other sectors

HS OUTPUT 4
Increase the number of Booster countries that have conducted a comprehensive assessment for the purpose of improving malaria control programs.

HS OUTPUT 5
Increase the number of Booster countries that are monitoring drug and insecticide resistance and reported results according to national standard at a Health Facility

HS OUTPUT 6
Increase the number of Booster countries where private medicine sellers are authorized to stock ACTs and have deployed CHWs trained, equipped and authorized to dispense ACTs, ORS and antibiotics

HS OUTPUT 7
Increase # Booster countries where private medicine sellers are authorized to stock ACTs and have deployed CHWs trained, equipped and authorized to dispense ACTs, ORS and antibiotics

HS OUTPUT 8
Build partnerships with endemic countries government units, funding agencies, across Sectors

Booster Program Support to Pillar 5

Technical Support for Projects (Design, decentralized planning, budgeting, implementation)

Build partnerships with endemic countries government units, funding agencies, across Sectors

M&E Support (Needs Assessment, Costed M&E Framework, Assess Coverage/Quality of Malaria Services, Support for Surveillance and Op. Research, Use of Data)

Additional Resource Mobilization Effort by MIRT

Support Training in Procurement/Supply Chain Management (ITNs, ACTs, IRS, RTDs)

World Bank Support to Booster Program

Adequate World Bank Financing to MIRT

IDA & Other Financing of Booster Projects
## Annex 5: Three Year Action Plan for Phase II

<table>
<thead>
<tr>
<th>ITEM</th>
<th>FISCAL YEAR</th>
<th>ACCOUNTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY09</td>
<td>FY10</td>
</tr>
</tbody>
</table>

### Programmatic planning and implementation

- **Prepare regional project**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Support implementation of regional project**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Prepare additional financing packages for Nigeria and DR Congo**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Provide technical support to Booster country portfolio**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Prepare follow on activities or plan country-specific exit strategies**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Support Health Systems Assessments in Booster countries**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/IHP

- **Support capacity-building activities – e.g. workshops on procurement and supply chain management**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Revise WB procurement guidelines for malaria commodities**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Develop and implement the LLIN Financing Solution**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

### Partnership Work

- **Forge and facilitate regional and sub-regional partnerships**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **External Partnerships: Maintain leadership role within RBM in (i) economic/finance work, (ii) DR Congo & Nigeria and (iii) regional work**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/RBM

- **Internal Partnerships: create cross-sectoral partnerships with the agriculture, education, and infrastructure sectors**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Resource mobilization: engage new donors (non-traditional donors and private sector)**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/RBM

### Monitoring and Evaluation (M&E)

- **Develop a Phase II results framework**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Develop an M&E strategy for regional projects**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Develop regional partnerships to give M&E support to regional & country programs**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/RBM

- **Provide ongoing M&E support to country and regional programs**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Develop M&E tools**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Build capacity for data collection and use for M&E to improve programs**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Support RBM MERG in advancing the development of the Malaria Scorecard as a database**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/RBM/DEC

- **Develop and maintain partnerships with international partners on M&E**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT/RBM/Bilateral Agencies

- **Carry out portfolio reviews to chart progress**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Carry out ESWs to report on M&E systems development**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

- **Carry out impact evaluations of Booster projects**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT, DEC

### Communications

- **Revise and implement communications strategy**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT

### Analytical Work

- **On the economic rationale and financing models for malaria control in Africa**
  - FY09: √
  - FY10: √
  - FY11: √
  - Accountability: MIRT
<table>
<thead>
<tr>
<th>Topic</th>
<th>✔️</th>
<th>MIRT/IFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>On how to engage the private sector</td>
<td>✔️</td>
<td>MIRT/IFC</td>
</tr>
<tr>
<td>On how to ensure the equitable delivery of malaria control interventions</td>
<td>✔️</td>
<td>MIRT</td>
</tr>
<tr>
<td>On how the government can become the steward of consumer protection and pharmacovigilance</td>
<td>✔️</td>
<td>MIRT</td>
</tr>
</tbody>
</table>
Annex 6: Regional Integration Maps
Possible Progression of Engagement in a Regional Elimination Approach

Lubombo Spatial Development Initiative

Phase I: Trans Caprivi Corridor
Phase 2a: Regional Integration Program – Engagement of Malawi

Phase 2b: Engagement of Tanzania
Phase 3c: Engagement of DR Congo