CHAPTER 2

Rationale for a Renewed World Bank Effort on Malaria

The Global Strategy and Booster Program is a response to the inadequacy of efforts to control malaria and the inadequacy of the Bank's current efforts relative to its potential. The Bank was a key contributor to recent successes in malaria control, including those in Brazil, Eritrea, parts of India, and Vietnam. It cofounded and supports the global Roll Back Malaria Partnership. However, the institution's efforts have been severely understaffed and underfunded, in terms of both funds committed to malaria control at the country level and the internal budget for the Bank's Malaria Team—a budget that *declined* during much of the period since 1998.[8] On balance, the Bank's activities were useful but not sufficient for success on a larger scale.

A stronger World Bank effort for malaria is needed on the following grounds:

- Malaria impairs economic growth and human development in many of the World Bank's client countries, particularly in Sub-Saharan Africa.
- Malaria is preventable, curable, and controllable on a large scale, with good returns on investment.
- Malaria control has positive externalities and is a global public good.
- At the regional and global levels, there is a wide gap between what is feasible and the current level of effort. Despite successes in a few countries, measurable progress in malaria control is well below the 60 percent coverage targets set by countries and development agencies for 2005 in terms of coverage with preventive and curative interventions.[9]

- The Bank has the capacity to do a lot more than it has in malaria control, including financing, policy advice, and implementation support.
- Clients, partner agencies, independent observers, civil society organizations, and potential cofinanciers are requesting that the Bank play a more decisive role in malaria control. There is much unmet demand for the Bank's financing and advisory services.

2.1 Malaria Impairs Economic Growth and Human Development

Malaria impairs economic development and health in many of the World Bank's client countries, particularly in Sub-Saharan Africa (Chima, Goodman, and Mills 2003; Ettling et al. 1994; Ettling and Shepard 1991; Shepard et al. 1991). For many low-income countries, malaria control is essential for progress toward achieving the MDGs, which the Bank has adopted as a corporate priority. The link between malaria and economic development is bidirectional; impaired health from malaria restrains economic development, whereas economic development, by improving living conditions and access to both effective prevention and treatment, reduces the illnesses from malaria. Malaria potentially affects both the volume and the productivity of inputs.

At the macroeconomic level, annual economic growth in malarious countries between 1965 and 1990 averaged 0.4 percent of GDP per capita, compared with 2.3 percent in the rest of the world, after controlling for the other standard growth determinants used in macroeconomic models (Sachs and Malaney 2002). This analysis does not constitute proof that malaria is a cause of low incomes and poor aggregate growth, but that the disease must be considered a legitimate contributor to these failings (Arrow, Panosian, and Gelband 2004). At the microeconomic level, estimates of the total (direct plus indirect) costs of malaria vary: 0.75 percent of GNP in Pakistan (Khan 1966); 7 percent of household income in Malawi (Ettling et al. 1994); 9–18 percent of annual income for small farmers in Kenya, and 7–13 percent in Nigeria (Leighton and Foster 1993). One multicountry study attempted an Africa-wide estimate of total costs of malaria based on extrapolations from case studies of areas in Burkina Faso, Chad, the Democratic Republic of Congo, and Rwanda. The totals reported translated to 0.6 percent of total Sub-Saharan GDP (Shephard et al. 1991).

2.2 Malaria is Preventable and Curable, with Good Returns on Investment

There is no accurate count of the global toll of illnesses and deaths from malaria. This is due to multiple factors, including weaknesses in data collection and reporting systems, inaccurate diagnoses that may result in over- or underreporting and, for many people in malaria-endemic areas, lack of access to skilled workers who can make accurate diagnoses. WHO estimated that there were 1,124,000 deaths due directly to malaria in 2002, of which about 970,000 were in Africa (WHO 2002). Globally, there are more than 500 million cases of malaria per year; a recent study put the number of cases from a particularly severe form of the malaria parasite, *Plasmodium falciparum*, at 515 million in 2002 alone (Snow et al. 2005).

The disease is preventable and easy to cure with available technologies. RBM and WHO support an evidence-based consensus on a combination of preventive and curative measures that include integrated vector management—insecticide-treated bed nets (ITNs) and curtains, indoor residual (house) spraying with WHO-approved insecticides where the pattern of transmission makes such measures appropriate, environmental modifications to eliminate breeding sites of mosquitoes, and biological control (e.g., bacteria, fungi, nematodes, copepods, and larvicidal fish); intermittent preventive treatment in pregnancy; and prompt treatment with effective drugs (RBM 2004a, WHO 2004b, WHO 2004c). In each context, the priorities and appropriate combination of interventions will depend on factors such as the epidemiology of malaria, the type and behavior of the mosquito, local customs and preferences, the susceptibility of the malaria parasite to different drugs, feasibility of the logistics required, the quantity and quality of human resources for malaria control, and affordability. A full documentation of these factors is beyond the immediate scope of this strategy but is available from specialized texts, journals, project reports, and the website of WHO (http://www.who.int). Effective malaria control is complex and challenging. In the absence of strong and sustained malaria control efforts, coverage with effective interventions is low, particularly among the poor in most of the affected countries. Estimates suggest that malaria accounts for up to 40 percent of all public expenditures on health and 20–50 percent of hospital admissions in many settings (WHO and UNICEF 2003).

In 1954 the Pan American Sanitary Conference adopted a continental plan to eradicate malaria from the Americas. In 1955 this plan was extended

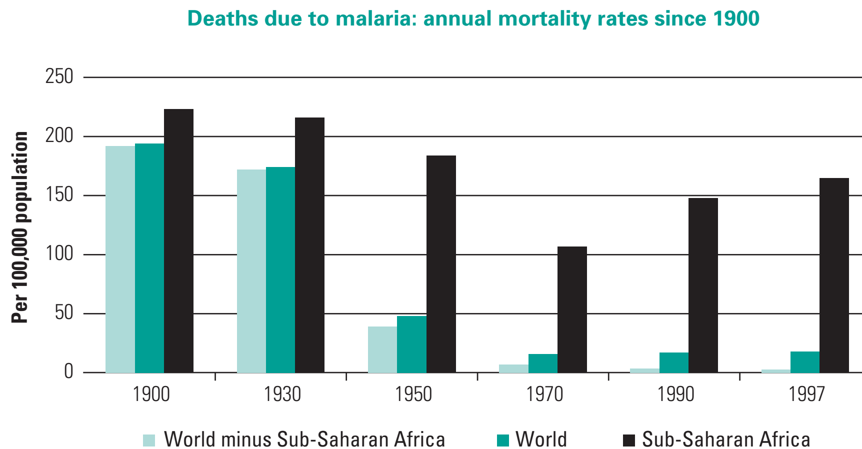
to the world by the World Health Assembly. In 1956, the Sixth Expert Committee formulated a strategy for eradicating malaria (WHO 1957). The goal of malaria eradication was understood by the committee as a problem of economic and political development, as much as of public health (Packard 1998). Malaria was eliminated in Europe, North America, and parts of other continents through deliberate programs of mosquito control and clinical treatment, as well as through generally improved social and living conditions (see figure 2.1). The commitment and persistence behind *eradication*[10] efforts elsewhere were never applied in Africa's highly endemic areas (Breman, Egan, and Keutsch 2001). Taking into account lessons learned during the eradication campaigns, in 1969 the World Health Assembly reaffirmed that eradication was the ultimate goal but stated that, in regions where eradication was not yet feasible, *control*[11] of malaria should be encouraged and may be a necessary and valid step toward that goal (WHO 1969).

The recent efforts to *control* malaria fall short of agreed goals in Africa. Today, at least 85 percent of deaths from malaria occur in Africa, 8 percent in Southeast Asia, 5 percent in the Eastern Mediterranean region, 1 percent in the Western Pacific, and 0.1 percent in the Americas. The poor bear a disproportionate burden of malaria; while the average total cost burden of malaria was 7.2 percent of household income, the total cost burden for very poor households was much higher at a potentially catastrophic 32 percent of annual income in Malawi (Ettling et al. 1994). Despite the fact that Africa bears the largest share of the malaria burden, the problem is not exclusive to Africa. For example, parts of Southeast Asia bear high burdens of the disease. In addition, Southeast Asia has been the epicenter of drug-resistant malaria (Arrow, Panosian, and Gelband 2004). These drug-resistant forms later spread elsewhere. Consequently, good malaria control in Southeast Asia and other places with similar patterns of malaria would benefit not only residents of these regions but, by reducing the emergence of drug-resistant forms of malaria, would benefit Africa as well.

2.3 Success is Possible on a Large Scale

Although large-scale successes in malaria control have been rare in the low- and middle-income countries, the World Bank was a key player in recent large-scale successes, as in Brazil, Eritrea, several states in India, and Viet-

Figure 2.1: Profile in Contrasts: The Persistent Burden of Malaria in Africa



Source: WHO 1999.

nam (see appendix 3 for details). In Vietnam, at a cost to the government of about US$11 (1998 costs) for a clinic visit plus drugs to treat an episode, the direct costs saved were about US$9.5 million, which is about twice the amount spent on malaria control each year. To this is added about US$14 million in reduced out-of-pocket health care costs to households (Laxminarayan 2004). In Brazil, compared to what would have happened in the absence of the malaria control program, nearly 2 million cases of malaria and 231,000 deaths were prevented. The overall cost-effectiveness was US$2,672 per life saved or US$69 per disability-adjusted life year (DALY), which compares favorably with many other disease control interventions (Akhavan et al. 1999). Other sources indicate that insecticide treatment of existing mosquito nets costs US$4–10 per DALY saved, providing nets and retreatment costs US$19–85 per DALY saved, and intermittent presumptive treatment of pregnant women through existing prenatal services costs US$4–29 per DALY saved (Goodman, Coleman, and Mills 1999).

The Bank responded to requests for malaria-specific investment projects in some countries, such as in Eritrea and India. This combination of country commitment with Bank support has resulted in measurable success. For example, through the US$40 million IDA credit for the HIV/AIDS, Malaria, STDs, and TB Control Project (HAMSET) in Eritrea, with tech-

nical support from and partnership with the U.S. Agency for International Development (USAID), Eritrea has reduced malaria morbidity and mortality for four consecutive years and has seen the use of ITNs rise from 20 percent in 2000 to 58.5 percent in 2002. India's Enhanced Malaria Control Project, which the Bank supports, started in 1997. Reported cases of malaria declined by 93.3 percent, 80.8 percent, and 40.6 percent for the states of Maharashtra, Gujarat, and Rajasthan, respectively, from 1997 to 2002.[12] Key factors in these success stories include a results-oriented approach; local leadership and good management capacity; explicit prioritization of malaria control by the government; levels of financing that were sufficient to achieve impact; evidence-based decision making to align interventions with the local patterns and causes of disease transmission; flexibility in the mechanism of Bank support; effective systems for delivering commodities; and proactive Task Teams from the Bank. These factors may be adapted for use elsewhere, and are taken into account in the new business model, priorities, and program of action.

2.4 There is a Wide Gap between Knowing and Doing

The use of ITNs has major effects on malaria and child mortality. When ITN coverage is over 60 percent, there may be up to a 20 percent reduction in all-cause mortality among children under five years of age, a 50 percent reduction in clinical malaria episodes, and widespread uptake confers protection on nonusers over time. When ITN coverage in Tanzanian infants increased from 10 to more than 50 percent, child survival increased by 27 percent and anemia decreased by 63 percent (Lengeler 2001).

Despite the efforts and successes in a few countries, measurable progress in malaria control is well below the 60 percent coverage targets set by countries and development agencies for 2005 in terms of coverage with preventive and curative interventions. This is particularly true in Africa, where malaria control efforts remain patchy in most of the severely affected countries. In many of them, there are indications of a real or potential increase in the burden of malaria, partly due to increases in drug-resistant forms of the malaria parasite. In Ghana, for example, "malaria continues to be a leading cause of morbidity and mortality. There are high levels of chloroquine resistance in the country, resulting in a change in drug policy to more expensive drugs. Coupled with the low coverage of ITNs, a major issue will

be the need to subsidize both the cost of ITNs and the drug to make them more affordable to government and to the people" (Ghana Ministry of Health and Health Partners 2004).

According to the report of the External Evaluation of Roll Back Malaria (Malaria Consortium 2002): "Due to inadequacies in the systems available for monitoring and evaluation (M&E), it is not possible to know with any certainty how the malaria burden has changed during the first three years of RBM. However, anecdotal evidence and the strong consensus among experts suggest that, at the very least, the malaria burden has not decreased. What is more likely, and believed to be the case by those involved, is that malaria has got[ten] somewhat worse during this period." While current data on coverage with RBM-endorsed interventions are sparse, the most recent official data from WHO indicate that, in many malaria-endemic countries, national coverage with key interventions is well below agreed targets of 60 percent for 2005 (WHO and UNICEF 2005) and the poor have much less access to effective interventions than others (table 2.1 and figure 2.2). At the same time, high coverage rates in some districts signal what can be achieved in a relatively short period when programs are based on priority interventions and use a results-based approach.[13]

Treatment, when prompt and effective, is associated with improved outcomes, even in very poor settings. For example, teaching mothers to provide prompt chloroquine treatment for fevers at home resulted in a 40 percent reduction in under-five mortality in Tigray, Ethiopia (Kidane and Morrow 2000). However, the poor also have less access to *any* treatment, as shown in figure 2.2, not to mention *effective* treatment.

The challenge of drug-resistant malaria

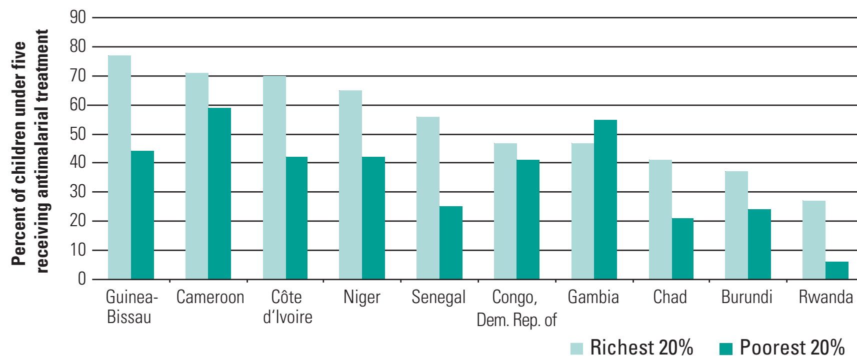
One of the reasons for the resurgence and increased burden of malaria is the development of resistance to traditional first-line antimalarial treatments such as chloroquine (CQ) and sulfadoxine pyrimethamine (SP, or Fansidar)

Table 2.1: Ownership of Insecticide-Treated Bed Nets in Malawi, by Income Group

BED NET OWNERSHIP	BOTTOM 28%	TOP 35%
% of households with at least one bed net	5.1	25.6
% of households with at least one ITN	0.9	5.4

Source: Gwatkin 2004.

Figure 2.2: Access to Antimalarial Treatment



Source: Worrall, Basu, and Hanson 2003.

by *Plasmodium falciparum*, the parasite that causes a severe form of malaria. Faced with increasing resistance to these first-line treatments, countries are revising their antimalarial drug policies and exploring alternative treatment options. Experience in some areas of Southeast Asia has shown combination therapy containing artemisinin-based drugs, so-called artemisinin-based combination therapy (ACT), to be successful in treating and reversing the spread of drug-resistant malaria. Based on such evidence, WHO has revised its guidance to countries to promote the use of ACT when a new drug policy is required.

There is a dual crisis in responding to drug-resistant malaria. First, at US$1–2 per course of treatment, ACTs are 10–20 times as expensive as the failed or failing chloroquine. Second, there is a potential biomedical crisis. Since the artemisinin-based drugs are the *only* first-line antimalarial drugs appropriate for widespread use that still work against chloroquine-resistant malaria parasites, malaria's toll could rise even higher if resistance to artemisinin were allowed to spread. The challenge is thus twofold: to facilitate the widespread use of artemisinins where appropriate while preserving their effectiveness for as long as possible. Arrow, Panosian, and Gelband (2004) asserted that preserving the effectiveness of ACTs means delaying the development of resistance, which creates a benefit for all—"a global public good." In July 2004, the Institute of Medicine (of the National Academies in the United States) published a report recommending a sustained global ACT subsidy, in which artemisinins are coformulated with other

antimalarials, as the most economically and biomedically sound means to meet this dual challenge. Without external funding, neither governments nor consumers, who bear most of the cost, can afford ACTs at current prices. The Institute of Medicine report identified the International Development Association (IDA) of the World Bank Group as a potential financier of an estimated annual subsidy of US$300–500 million (Arrow, Panosian, and Gelband 2004). As of March 2005, the Bank was examining the "global public good" rationale for a high-level subsidy through a study financed by the RBM Secretariat as part of the work program of RBM's Finance and Resource Working Group.

Global estimates of financing needs

International estimates provide a range of what may be needed to achieve the Abuja Targets and MDGs, with the caveat that many estimates are based on epidemiological scenarios rather than scenarios that take account of constraints on implementation. Country-specific estimates of financing requirements are required to obtain a more robust picture. Furthermore, since the financial burden of malaria control falls mostly on the household level in Africa, the manner in which malaria control funding should be targeted remains a topic for debate (Jowett, Miller, and Mnzava 2000; WHO 2002).

Estimates of the financing needs for worldwide malaria control vary, but all estimates indicate that more money is needed, even after taking into account grants from the GFATM, which had committed a total of US$904.5 million as of December 2004 (in two-year grants, up to mid-2006). The rising cost of treatment has added to what was already a difficult financial situation. In 2004, the Copenhagen Consensus estimated that US$1–3 billion per year is needed to halve deaths from malaria worldwide by 2010 (Mills and Shillcutt 2004). In 2000, The Abuja Declaration called for the allocation of new resources of at least US$1 billion per year, from African countries and their development partners, to halve malaria morbidity and mortality in Sub-Saharan Africa by 2010.

Addressing both disease-specific interventions and health system support

The financial constraint remains an urgent and key factor, but not the only key factor, holding back malaria control in most countries. As with broader

health and development issues, additional financing is likely to make a difference when combined with sound policies, good governance, effective implementation arrangements that suit the local context (World Bank 2002; World Bank 2004a), technical rigor, better use of existing human resources, and the concurrent improvement of human resource capacity in the countries (Chen et al. 2004). Weak health systems need to be improved, both for sustainability and to ensure that a more proactive effort to control malaria does not distort the health system. Efforts to enhance PRSCs and SWAps for malaria control will take account of systemic constraints in the use and development of human resources, drug procurement and management, planning and budgeting, and monitoring and evaluation. Immunization campaigns and maternal and child health services provide opportunities for integration of malaria control into routine health services.

However, 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 disease control and public health, major interventions have worked on a large scale even in poor settings with grinding poverty and weak health systems (Levine et al. 2004). At the same time, there is evidence that a persistent failure to achieve improvements in health outcomes could lead to a backlash against broader efforts to reform the health system, as in Zambia, where "continued deterioration of health conditions during the mid-1990s was a key factor in the Government's 1998 back-pedaling on the reform agenda" (World Bank 2003b, p. 10), along with local perceptions that there was too much emphasis on process and too little on content. It is crucial to address the content, not only the process, of programmatic operations in order to achieve measurable improvements in health outcomes.

An effective approach needs to be more robust than a mutually exclusive framework of either health system strengthening versus disease control programs, or horizontal versus vertical programs. The Booster Program would support an effective combination of both as appropriate. Malaria control may be thought of as a diagonal program that needs elements of horizontal and vertical approaches, with the balance dependent on the context.

Growing pressures on scarce resources

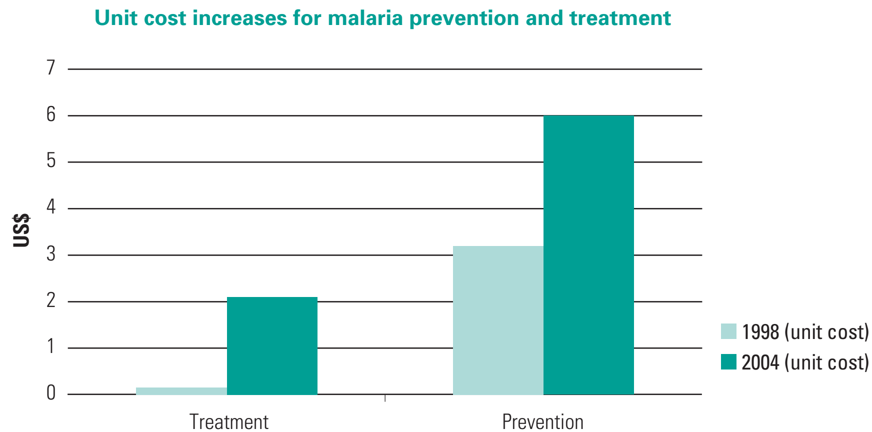
The pressures on governments to finance treatment for malaria increased dramatically from 2004 to 2005 due to drug resistance and the emergence

of new preventive technologies. Increased resistance of the malaria parasite to long-standing treatment has forced countries to shift first-line treatment for malaria from drugs that cost US$0.05–0.10 per treatment course (such as CQ and SP [Fansidar]) to ACTs that cost up to US$2 per treatment course. Funds available to clients, including those from the GFATM, are insufficient to maintain treatment coverage. Clients have requested substantial financing from the Bank, not only to purchase the drugs, but also to increase the capacity of health systems to cope with the increased demands on service delivery.

The costs of prevention are increasing as well. ITNs are clearly effective in preventing malaria when deployed on a significant scale. A key bottleneck to increasing net use, however, is that nets have to be retreated with insecticide every six months in order to maintain their effectiveness. In Sub-Saharan Africa of the average 13 percent of the population covered by ITNs, retreatment rates were generally under 4 percent (WHO and UNICEF 2003). In response to this problem, WHO prompted the industry to develop long-lasting insecticidal nets (LLINs), which are ready-to-use, factory-pretreated nets that require no further treatment during their expected lifespan of four to five years. According to the WHO, "this technology obviates the need for re-treatment (unlike conventional ITNs, LLINs resist washing) and reduces both human exposure (at any given time, most of the insecticide is hidden and not bioavailable) and the risk of environmental contamination" (WHO 2004a). This development, however, comes at an increased upfront price: about US$6, compared to approximately US$3 for a conventional ITN (see figure 2.3), though the costs over time may be lower than a conventional ITN given that retreatment costs would not be incurred by users of LLINs.

The GFATM is currently the major financier of ACTs. However, the short term of GFATM grants (two years in a first instance, with a possibility of extension to five years) puts vulnerable countries, governments, and populations in a precarious position should funds not be available beyond two years. Furthermore, manufacturers of ITNs and ACTs have been either unwilling or unable to produce sufficient quantities of either commodity, largely as a result of the uncertain financial landscape for malaria control and the absence of predictable, large-scale demand. Although the GFATM has approved some grants for this purpose, the way they are disbursed means that the process is too slow and too fragmented to give firms reassurance, leading to more calls for a commitment from an organization

Figure 2.3: The Increasing Costs of Commodities for Malaria Control



Source: RBM 2004b.

such as the World Bank to address the issue through complementary financing, and a centralized global purchasing body to coordinate the orders (*Economist* 2004). The Bank Group has a combination of comparative advantages, including a medium- to long-term financial horizon, procurement expertise, experience with innovative financing instruments, and international credibility among pharmaceutical manufacturers to work with governments, the private sector, CSOs, and multiple agencies (see box 2.1). The Bank's Malaria Team has received requests from clients and independent agencies to engage more strongly in helping countries meet the need for effective treatment of malaria.

2.5 The World Bank Has Underused its Comparative Advantage in Malaria Control

There are publicly available reports and perceptions that the Bank (i) has not kept its promise on malaria control; (ii) was aloof from the needs and operational realities of those who implement malaria control programs at the country level; and (iii) was insufficiently focused on outcomes in terms of reducing the burden of illness, productivity losses, and preventable deaths. Many of these reports and perceptions have merit.

Box 2.1: Putting the Bank's Comparative Advantage to Work:
Assisting Countries to Develop Strategies for Financing Treatment with ACTs

Many countries in the Bank's Africa Region are facing a combination of finance-related issues around the shift in first-line treatment to ACTs, including but not limited to the inadequacy of current funds for ACTs and concerns in client governments about financial sustainability given growth projections. Planning and budgeting officials are skeptical about epidemiologically driven cost estimates, while program-based cost projections remain unclear.

In response, the Bank and USAID, through the "Partners for Health Reform Plus Project," are now working together in Tanzania and the Democratic Republic of Congo to address their respective concerns around a shift to ACTs. The studies will address both incremental resource requirements and gains in health outcomes. The findings will help to inform ministries of health and finance about the potential for increased expenditures and the benefits such expenditures would buy in the short and medium term.

In the Democratic Republic of Congo, this work will inform directly the preparation of the proposed Health Rehabilitation Project, which will support malaria control and help close the gap between available financing and what is required for impact. It may also assist the country team in its efforts to secure project cofinancing, by articulating clearly what outcomes an increased investment might purchase.

In Tanzania, this work will inform the discussions with Ministries of Health and Finance on whether or not the new first-line treatment should be supported, given the medium- to long-term financial implications. The proposed work could help inform Ministry of Health decisions on intrasectoral allocations with evidence on the cost-effectiveness of ACT expenditures, given the burden of disease and the longer-term affordability of financing such costs.

Since September 2004, this type of assistance has been requested by Benin, Burkina Faso, Kenya, Rwanda, and Senegal. While many more requests are expected, the Bank's capacity to respond to this demand has already been exceeded due to the inadequacy of current internal budgets.

The World Bank is capable of doing a lot more than it has on malaria control. Much of the Bank's comparative advantage in malaria control lies in the combination of its cross-sectoral capacity in analytical work, advisory services, financing, operational support, and convening power across multiple sectors that contribute to or benefit from malaria control. The Bank has strategic access to, and support for, the following:

- Country-led and country-owned processes for developing Poverty Reduction Strategies, Medium-Term Expenditure Frameworks, and debt relief agreements under the Highly Indebted Poor Country Initiative (HIPC Initiative)

- Planning and budgeting at the country level, with attention to operational constraints and linkages to expected outcomes
- Coformulation of sector-wide approaches and budget support to address systemic constraints within sectors (particularly health), and across multiple sectors
- Financing or cofinancing (as in the successful efforts in Brazil, Eritrea, India, and Vietnam).

External evaluation of Roll Back Malaria and implications for the World Bank

In 2002, the RBM Partnership underwent an External Evaluation as a requirement for continued funding from the British government's Department for International Development and Development Grant Facility financing from the Bank.[14] In summary, the evaluation concluded that while the RBM Partnership had made impressive gains in global advocacy, it had not succeeded in making large-scale impacts at the country level in terms of reducing morbidity and mortality from malaria (Malaria Consortium 2002).

The evaluation team found that the Bank could be playing a more active role to fulfill its responsibility in RBM. The evaluation team identified a tension between two views: whereas many in the RBM Partnership argued that funding was a major problem holding back malaria control, the World Bank argued that money was not the rate-limiting factor. The Bank cited as rate-limiting factors limited absorptive capacity and poor prioritization of malaria control, as evidenced by significant unspent monies at the close of many IDA-financed operations. The RBM evaluation team cited difficulties experienced by the Bank's clients in navigating and understanding SWAps, Poverty Reduction and Strategy Papers (PRSPs), and HIPC debt relief financing modalities, as well as confusion in the Partnership about whose responsibility it was to channel funds from these existing opportunities to malaria control efforts (the country, the Bank, other RBM partners, or another?). The evaluation team 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 due to many partners' lack of familiarity with those processes. The reported impression of the Bank among other partners was

that "it talks the talk, but does not deliver in practice on the ground" (Malaria Consortium 2002).

The Bank's financing of malaria control

At the Abuja Summit in April 2000, the Bank, along with heads of state and senior government officials from 44 of the 50 malaria-endemic countries in Africa, pledged to (i) halve the malaria burden in Africa by 2010 and (ii) achieve by 2005 a coverage of 60 percent with key malaria control interventions.[15] The Bank stated the following before signing the declaration:

> We would like to significantly increase the resources needed to address malaria through World Bank financing. We estimate that we now have re-allocated somewhere between US$100–150 million for RBM activities in our Africa Region health portfolio, a healthy amount already available for malaria at the country level. However, we can do much more. We estimate that we can finance an additional US$300–500 million for RBM action across Africa and we hope that the RBM Partnership and the African Leadership will be instrumental in specifically creating a demand for the World Bank operations in this direction. The resources can be deployed to increase the fight against malaria, but there has to be an explicit, country-driven, country-owned, and country prioritization in order to win that fight. There should be more common objectives between the Ministers of Finance and Health. The presence here of so many Heads of State sends a promising signal that a regional effort is urgent, yet viable.

Since 2000, total Bank commitments in all regions are about US$100–150 million in earmarked funds for malaria control. These include only health sector investment credits and grants, as well as commitments through broad programmatic operations such as SWAps. Total World Bank support for malaria control was higher, due to financing through debt relief, multisectoral operations such as PRSCs, Emergency Recovery Credits, and Social Funds. However, it is difficult to quantify exactly how many of these commitments went to malaria control, since these operations have not tracked details of disease-specific inputs. Investments in health sector development activities, such as training of nurses and management training at the country and district levels, have not been included. These investments contribute to the capacity of health systems to undertake effective malaria control.

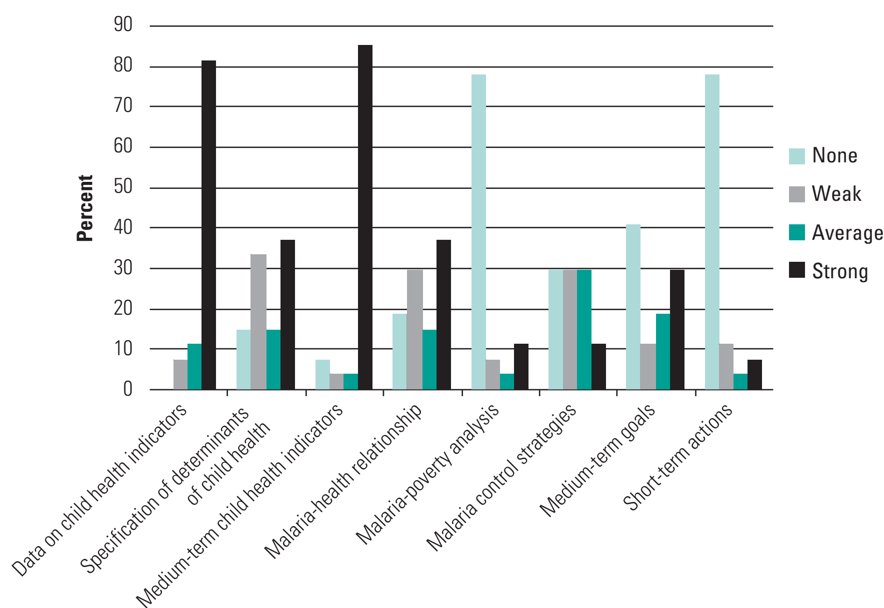
Enhancing PRSPs, PRSCs, and health SWAps to achieve measurable results in malaria control coverage and health outcomes

Malaria control would benefit from the application of key principles underlying the Poverty Reduction Strategy Initiative—ownership, results focus, multisectoral perspectives, and country-led partnership. The Bank could support countries to apply these principles. However, this potential has yet to be realized in many malaria-endemic countries. For example, analyses of PRSPs and Interim Poverty Reduction and Strategy Papers (I-PRSPs) of 27 countries in Sub-Saharan Africa showed that inclusion of malaria in PRSPs is generally low. While 81 percent of PRSPs and I-PRSPs include data on child health indicators, only 37 percent further the analysis to specify the determinants of child health. As a result, the discussion on malaria, which is a major contributing factor to under-five mortality, typically does not include country-specific, quantitative, or, where necessary, costed information on the problems due to malaria. It rarely includes strategies and actions to achieve malaria control targets. Figure 2.4 and its accompanying table show a categorical distribution of PRSPs and I-PRSPs according to how well they addressed specific items. The analytical base and results focus of the PRSPs are weak in relation to malaria control. These findings are consistent with those from a recent evaluation that was done by the Bank's Operations Evaluation Department and indicate a major opportunity for each eligible country to integrate malaria control into its PRSP, given the role that the PRSP plays in development planning and assistance (World Bank, 2004b). With reference to Sub-Saharan Africa, Bank support for this approach would be consistent with the principles addressed in *Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa* (World Bank 2004c).

There is a need to combine PRSCs and health SWAps with an emphasis on measurable outcomes

Budget support through PRSCs, as well as programmatic operations in the form of basket funding and health SWAps, has the potential to sustain medium- to long-term gains in malaria control and the broader health system. However, they have not been consistently applied in ways that enable rapid improvements in coverage while improving systems to ensure sustainability. An important question is whether these are problems of concept, design, execution, or some combination of the three.

Figure 2.4: Effectiveness of PRSPs in Addressing Malaria



PERCENT	DATA ON CHILD HEALTH INDICATORS	DETERMINANTS OF CHILD HEALTH	MEDIUM-TERM CHILD HEALTH INDICATOR	MALARIA-HEALTH RELATIONSHIP	MALARIA-POVERTY ANALYSIS	MALARIA CONTROL STRATEGIES	MEDIUM-TERM GOALS	SHORT-TERM ACTIONS
None	0	15	7	19	78	30	41	78
Weak	7	33	4	30	7	30	11	11
Average	11	15	4	15	4	30	19	4
Strong	81	37	85	37	11	11	30	7
Total: Avg + Strong	**93**	**52**	**89**	**52**	**15**	**41**	**48**	**11**

Source: Pande, Adeyi, and Basu 2004.

For example, the Operations Evaluation Department's report on the Zambia Health Sector Support Project (IDA Credit 003239) noted that while progress was made on the reforms and harmonization agendas, "there is no clear evidence that the overall quality of, and access to, a national package of essential health services had improved" (World Bank 2003a). The Implementation Completion Report for the project noted that there was "no evidence to suggest that the project had any measurable impact on the health status of the Zambian population," and the case fatality rate for malaria in children (45 deaths per 1,000 cases) was higher than projected (25 deaths per 1,000 cases). Furthermore, there was a local perception of "too much emphasis on process and not enough on achieving visible results on the ground." Drug shortages were common, especially in the urban health centers (World Bank 2003b).

According to the Implementation Completion Report, this project was designed as a SWAp, one of the first of its kind in the social sectors in Africa; hence, the findings reflect in part the challenges of a pioneering effort, in addition to local complexities. Lessons were learned about sustained commitment, good governance, fiduciary issues, strengthening of procurement capacity, and human resource development. Other lessons learned included: (i) the need to engage with technical personnel who are implementing reforms; and (ii) the perils of a lack of baseline indicators and a system for monitoring progress toward goals, which, along with an inadequate mechanism for tracking sector expenditures, seriously undermined effective implementation of a sector-program approach. In such instances, the appropriate strategy would be a phased transition toward sector-wide management that supports capacity building in key areas and protects high-priority public health interventions while introducing over time SWAp processes such as annual reviews and pooled support for districts.

An important lesson is the need to address concurrently the policy, process, and technical issues, including short-term improvements in coverage and health outcomes, while working toward medium- to long-term improvements across the health system. Therefore, it is prudent to (i) maximize use of PRSCs and health SWAps whenever possible, by enhancing them to address malaria control explicitly, and (ii) undertake a more intensive malaria control program to ensure major gains in coverage with effective interventions, thereby maximizing health and economic gains as rapidly as possible.

This effort will facilitate the achievement of results at the country, regional, and global levels, consistent with the emerging themes of the

IDA, including achievement of the MDGs, collaboration with relevant partners, results measurement, and attention to communicable diseases:

> "IDA will continue its work to combat these diseases and mitigate their effects, both at the country level through disease-specific interventions and support for health systems strengthening, and across countries through regional projects, as well as through support for international initiatives" (IDA 2005, p. 13).

There are promising developments in integrating strong malaria control efforts within budget support and health SWAps. For example, the Poverty Reduction Support Credit and Grant to the Republic of Rwanda (World Bank 2004d) includes the following malaria-specific measures:

- "Use of ITNs by pregnant women will increase from 10 percent in 2003 to 30 percent by 2006, and the percent of children under five covered will increase from 18 percent to 40 percent." This is one of the three primary coverage indicators chosen for the health sector.
- "Block grants will be transferred to districts by the Ministry of Health, using agreed performance-based criteria related to malaria control and other high-impact health care services."

Furthermore, key actions on malaria include the following (World Bank 2004d):

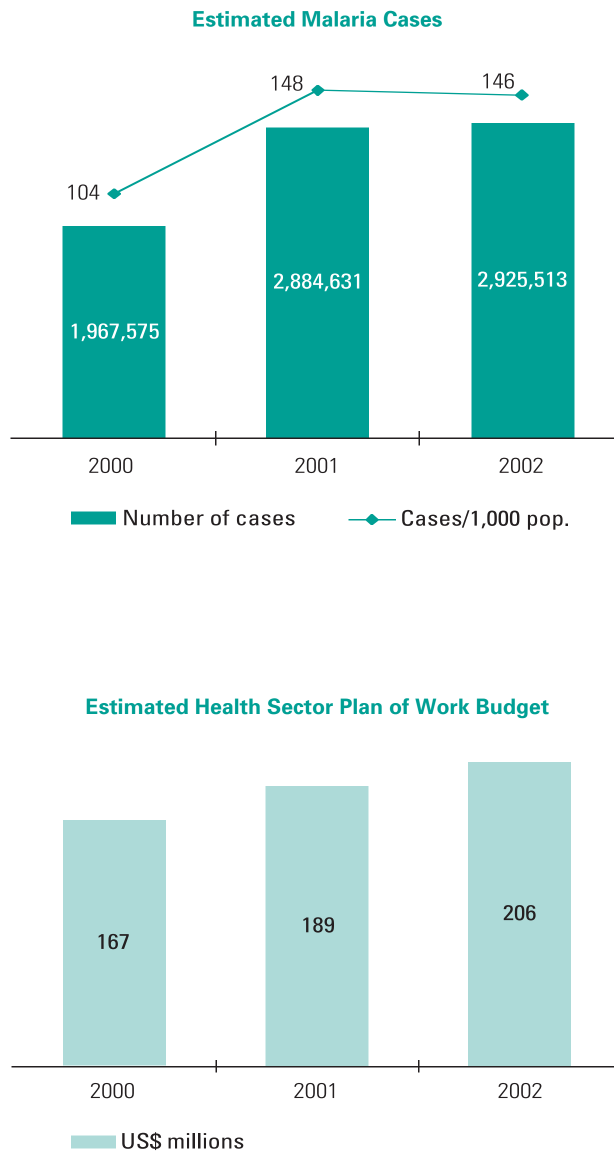
- *By end 2004:* "Publish policy on antimalarial drug (ACT) and ITN pricing and subsidy scheme."
- *By November 2005:* "(i) Ensure that 35 percent of districts have trained promoters in malaria prevention and case management. (ii) Ensure that budget reflects the purchase of any higher cost treatment to be provided at subsidized prices, ensuring that cost to consumers is maintained at current or lower levels according to the RBM Plan."
- *By November 2006:* "(i) Design and test malaria epidemic early warning system. (ii) Ensure that budget reflects cost of purchasing new high cost antimalarial drugs, ensuring cost to consumers is maintained at current or lower levels according to RBM Plan."

The new Malawi Health SWAp provides an opportunity to integrate malaria control within a broader approach to health sector development. The Joint Program of Work (2004–2010) for the SWAp recognized malaria as “the leading cause of outpatient visits (30 percent)" (Government of Malawi, 2004). However, there was no mention of malaria among the 42 indicators in the SWAp indicator matrix. This raises questions about the technical rigor and strategic relevance of the contents around which donors are harmonizing processes, given the Zambian experience.

Malaria Control Programs have found it difficult to navigate the changing landscape of development assistance at the country level

One reason for difficulties with development assistance, as given by some RBM partners at the country level, is poor access to health sector resources by National Malaria Control Programs (NMCPs). There is a lack of guidance on how NMCPs might operate in a decentralized planning and budgeting environment. More specifically, it was determined that the combination of increased health sector support and low malaria control coverage is partly due to weak linkages among disease control programs, health sector plans of work, and associated funding. There is evidence that malaria control activities in countries using SWAps or budget support remain generally supported by small projects and have been below the threshold where impact on disease transmission is possible, leaving many to question what tangible outcomes the health system investment is buying. In Ghana, for instance, despite donor harmonization in the sector, an increased Ministry of Health budget, and a growing percentage of that budget being spent at the district level, malaria incidence is on the rise (figure 2.5). This raises concerns, which have been confirmed by operational experiences, that the malaria control program has limited engagement in and ownership of the overall Ministry of Health budget and, therefore, of IDA funds which are channeled through a SWAp (through the Second Health Sector Support Project, US$90 million). According to an external review of the achievements in implementing the 2002 Program of Work, malaria remained the leading cause of morbidity and mortality in the country, accounting for 40 percent of all outpatient contacts and 25 percent of all under-five mortality (Government of Ghana 2003).

Figure 2.5: Malaria Control Efforts Have Not Benefited from Increased Health Spending in Ghana



Source: Government of Ghana, Ministry of Health 2003.

Expanding ownership of malaria control to district level in Senegal

In Senegal, key roadblocks to more widespread implementation of RBM activities include weak and spotty implementation of district-level activities and the overly centralized structure of the NMCP. Dialogue between the central program and the provincial and district health directors has been relatively weak, as has been ownership at the district level of key malaria control activities. In August 2004, at the request of the NMCP and the Bank, the RBM Secretariat provided the NMCP with US$60,000 to carry out a process by which the central NMCP staff spread out across the country to discuss with each district the activities and performance targets needed to reduce morbidity and mortality from malaria. This process has been completed and the agreed-upon activities have been integrated into the overall health sector plan of work, to avoid duplicate planning and budgeting for malaria control activities. Sector-wide or budget support to districts would automatically support malaria control activities through support of the more technically robust district plans. Critical now to success will be funding flows to the district level, as well as the availability of commodities. The latter will be increasingly difficult given the impending increase in the cost of malaria treatment (for ACTs).

2.6 Clients and Partners Demand a Stronger World Bank Effort

The Bank's clients in malaria control include not only ministries of finance, which are the prime institutional counterpart for Bank-country relations, but also multiple stakeholders that either play key roles in effective malaria control or are affected by the Bank's work in this area. These stakeholders include the line ministries such as health, education, agriculture, environment, and infrastructure; malaria control programs; maternal and child health programs; CSOs; and the private sector. Tacit knowledge acquired in the past five years indicated that while engagement with the ministry of finance was necessary, it was not sufficient to ensure effective Bank support for malaria control. Recent consultations with stakeholders pointed to lessons learned and also indicated areas in which the Bank should improve its work on malaria control.

During the annual joint Malaria Control/Integrated Management of Childhood Illnesses Program Managers meeting in Maputo, Mozambique,

in September 2004, the WHO Regional Office for Africa (WHO AFRO) gave Bank representatives the opportunity to discuss the Bank's performance in malaria control. In addition to participating in plenary discussions, Bank representatives asked NMCP managers to provide feedback on the Bank's role in malaria control by filling out a short, self-administered questionnaire, the results of which were considered in the development of the new Strategy and Program of Action. *Since this was a convenience sample, the findings are only illustrative of a range of issues to be considered and cannot be generalized beyond the sample.* The findings raise many questions to be addressed on a country-by-country basis and provide the Bank with an interim idea of how its work on malaria is perceived by one of the key client constituencies in malaria control—technical experts and program managers responsible for malaria control in client countries.

Thirteen client countries were consulted on the status of work at the country level, NMCP managers' successes and perceived challenges in working with the Bank on malaria, recent achievements in malaria control, their unmet needs and expectations, and how the Bank might respond to those needs. Separate discussions with officials from many of the countries included their experiences with and perceptions of the Bank's approach to malaria control, including policy dialogue, program design, financing, implementation support, lending instruments, cross-cutting health system constraints and efforts to address them, and suggestions for the future.

Nine of the 13 clients (69 percent) responded that the Bank provided financing for malaria control in their countries. Interestingly, for two major health sector support programs implemented through SWAps, program managers claimed either that they were "not sure" of Bank financing for malaria or that there was "no financing" for malaria. The limited knowledge and ownership of malaria financing by the program managers, as evidenced by their responses, is a major issue, regardless of the level of financing. Of the countries using health SWAps (71 percent of the countries sampled), 90 percent of the program managers attended the planning meetings, though their levels of participation varied from simply attending to active participation through involvement in the planning, presentation, and reviews of progress.

The Bank scored highest in its active involvement in policy discussions on malaria control in client countries, with 8 of 13 (62 percent) responding positively. The Bank's lowest performance rating (with 100 percent of clients assigning a "very poor" rating) was in response to a question about

the simplicity of procedures to help malaria control programs access World Bank funds. In addition to this issue, the two other questions on which the Bank scored very poorly both involve the limited engagement of the Bank with non-governmental organizations (NGOs) and civil society groups, and the formal or informal commercial private sector work on malaria control in client countries. (Regarding NGO engagement, 92 percent scored the Bank a “poor” or “very poor” rating, with the Democratic Republic of Congo being a key exception, scoring the Bank “excellent” on this question. Regarding private sector engagement, 75 percent scored the Bank a “poor” or “very poor” rating.) Given that the majority of malaria cases in endemic areas (as in most of Sub-Saharan Africa) are prevented and treated in the nonpublic sector, the low ratings on this front are troubling.

While the results of the questionnaire do not provide the Bank with a positive scorecard overall, the clients do not want to see the Bank disengage; 100 percent of the respondents would like the Bank to “do more than it is doing today.” In response to an open-ended question, NMCP managers’ most common requests for how the Bank might better support malaria control in the future centered around the following:

- Increased financing (through direct support to malaria control programs, through SWAp/budget support, and through both), particularly long-term financing for commodities such as ACTs
- Support for economic analyses relating to malaria control
- Sharing of best practices across countries
- Simplification of disbursement to support programs.