

## Malaria Landscape Report 2007

### I. Introduction

**T**HE YEAR 2007 saw a large number of far reaching actions taken in the fight against malaria, the impact of which are already beginning to be felt. Firstly, the **Global Fund's Round 7** was the most successful round ever for malaria components, with potentially USD 1 billion dollars over five years going to support global action against the disease.

2007 also saw significant progress made with regard to the design of the ACT subsidy, also known as the **Affordable Medicines Facility for malaria**, which should substantially enhance equitable access to what is now the recommended first line treatment for a majority of countries. Fortunately additional breakthroughs have occurred that increase equitable access, particularly **intensive nationwide distribution campaigns of long lasting insecticidal nets (LLINs)**: for example, in just half a dozen countries, almost 28 million LLINs were distributed in 2007. The number of antimalarial commodities procured continues to rise. All of these conditions strongly favor **Scale-Up for Impact (SUFU)** across a large number of malaria endemic countries in the year 2008.

It is important to reflect at the outset on the commitments and pledges made more than seven years ago in **Abuja**. Progress toward those targets is still lagging in almost all countries (**Annex 1**). At Abuja, the goal of reaching 60% of the population at risk with a combination of effective malaria prevention and response measures by 2005 was fixed in the expectation that this would act as an important milestone on the road to halving malaria mortality in Africa by 2010. The timeframe of these commitments proved too ambitious for almost all countries.

Disease control targets have been fixed for 2010, including extending effective malaria prevention and response measures to 80% of the population at risk. The only way these targets can be met is if malaria control activities are rapidly scaled up across all of Africa.

This Malaria Landscape Report is structured around four primary sections: Global Impact, Country Success, Resources Available and Next Steps.

The first section, **Global Impact**, will examine the current situation in 2007 in the production and procurement of antimalarial commodities, as well as in their coverage and usage. This section will also briefly survey taxes and tariffs placed on these commodities before looking at the expansion of the partnership in terms of new organizations and initiatives. The first section will end with a recap of major advocacy events, and the objectives behind them, which will feed into 2007's achievements in resource mobilization.

**Country Success** will then highlight individual success stories and the impact already being achieved in a group of African countries in 2007. **Resources Available** is the third section and will look at the funding channeled into malaria control activities from existing and additional sources, and issues surrounding Scale-Up for Impact. Finally, the report will close with the **Next Steps** necessary to take in the fight against malaria in 2008 and beyond.

### II. Global Impact

- **Antimalarial Commodities: Production & Procurement**

**O**N A GLOBAL SCALE, from the year 2003 onward, exponential growth has occurred not only in the production but also in the procurement of **ACTs**. The past three years has also witnessed a dramatic policy shift away from monotherapies such as chloroquine in favor of ACTs, and a shift away from untreated nets to either insecticide treated nets or long lasting insecticidal nets.

The dramatic growth in procurement of ACTs is depicted in **Figure 1**. Reflecting this, in 2003, only 3 African countries had adopted ACTs as the recommended first line treatment of uncomplicated malaria. Today in 2007, all but two have.

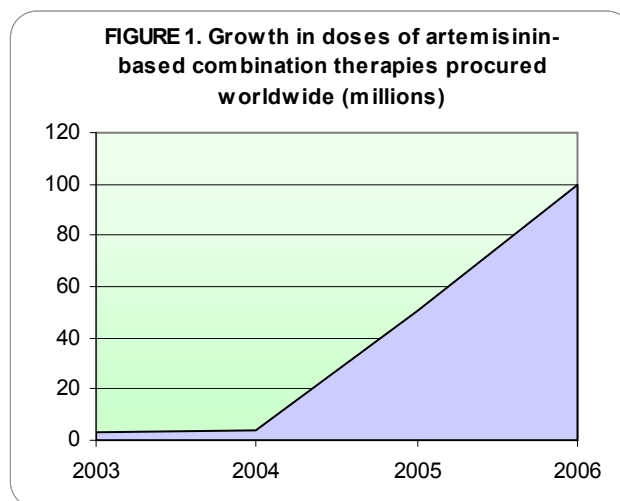
Globally, ACTs are the recommended first line treatment of uncomplicated malaria in almost 70% of the countries at risk of malaria in Asia, Africa and S. America. Of these, 62% are actively deploying ACTs. While data is still being collected, ACT usage needs to increase in the coming years. The fourteen African countries for which data is available indicate that almost two thirds fall within the range of 1-3% of febrile children under the age of five receiving ACTs.<sup>1</sup>

These low uptake rates have often been the result of a combination of factors, particularly the high cost of the treatment. This underscores the timeliness and importance of the **Affordable Medicines Facility for malaria (AMFm)**, which aims to bring down the cost of ACTs to affordable prices, ideally on a par with chloroquine, an extremely inexpensive treatment that has dominated the market for years and to which the parasite has now become resistant. Another important objective of the ACT subsidy will be to ensure that Artemisinin monotherapies, which are cheaper than ACTs but have the potentially dangerous side effect of increasing the parasite's resistance to the therapy, are kept out of the market.<sup>2</sup>

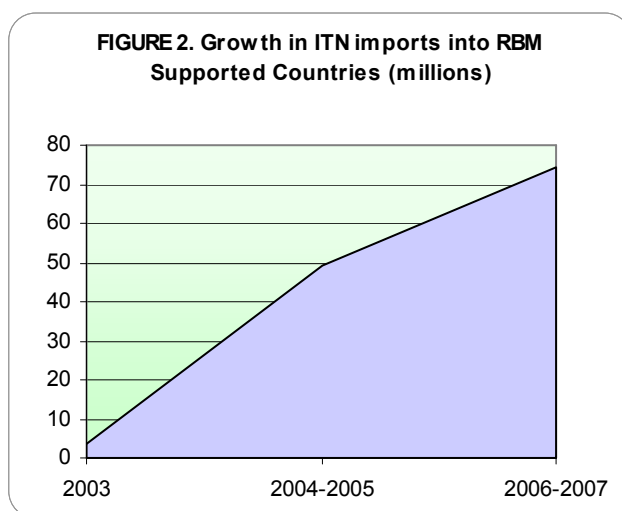
Four new ACTs are due to be launched in the coming years, including a pediatric formula, which should benefit those who are most often the victims of the disease, young children.

In order to ensure ACTs will be available in the long term to those in need of the life saving treatment, it is extremely important that the confidence of ACT producers and the growers of the vital ingredient, **Artemisia**, are reinforced. Based on **Figure 1**, and based upon the funding commitments of key players such as the Global Fund, PMI and the World Bank's Booster Program to support ACT scale-up, it is vitally important that demand not outstrip supply. It will be a key challenge in the future to ensure that the accurate forecasting of needs and resources and that timely information flows between producers, suppliers, and customers occur.

A similar problem has occurred for the net industry; in 2006, around 63 million LLINs were produced, but procurement lagged behind, at only 42 million nets. It is critical that producers of these commodities do not become disenchanted when demand is not what was expected or foretold. However, despite these market imperfections, the number of **ITNs**



Source: RBM Database, UNICEF Supply Division, WHO.



Source: RBM Database, Round 6 & 7 Global Fund Proposals

<sup>1</sup> UNICEF & RBM, *Malaria & Children, Progress in Intervention Coverage*, 2007, p. 26.

<sup>2</sup> Phumaphi, Joy (Vice President, Human Development Network, The World Bank), Affordable Medicines Facility for Malaria, presentation for the meeting of the All-Party Parliamentary Malaria Group, 9 October 2007.

and especially **LLINs** has been growing rapidly, as depicted in **Figure 2**. To get a better sense of what these figures mean at the country level, almost sixty percent of 29 African countries have experienced a five fold increase in net imports; a third of countries have experienced a ten fold increase; and just over twenty percent of countries have witnessed a twenty fold increase.

- **Antimalarial Commodities: Coverage & Usage**

**H**OWEVER, DESPITE THESE RISING NUMBERS, coverage of ITNs globally is extremely varied. In some countries like Cambodia and Vietnam, the data tells us that households with at least **one mosquito net of any type** can reach 96-97% coverage. Yet in the very same countries, **ITN** coverage is only a fraction of that, sometimes as low as 5% coverage. This trend can be seen across almost every country: household coverage rates of ITNs are generally only one fifth to one half that of untreated net coverage.<sup>3</sup>

In line with increased ITN and LLINs imports, the number of treated nets at the household level has surged past untreated nets in more than 10% of countries around the world for which data exists.<sup>4</sup> It is expected that, due to these increased imports, this figure may understate the current situation by a considerable margin through a lack of validated data sources.

It is important to note that even though **access** and distribution have been expanding rapidly of late, **usage** can still be low, though it does show signs of recent growth. Based upon UNICEF & RBM data, the left half of **Figure 3** shows the percentage increase in children under five sleeping under an insecticide treated net from 2000 to 2006 in 28 African countries.<sup>5</sup> While no change was seen in three of the countries, fourteen experienced growth of more than 10%, and seven experienced growth equal to or greater than 20%.

Utilizing data extracted from Global Fund Round 7 proposals, the right half of **Figure 3** depicts the percentage increase from 2006 to 2007. This side of figure 3 paints a much more dramatic picture, one with dynamic, positive change for many countries in a very short period of time.

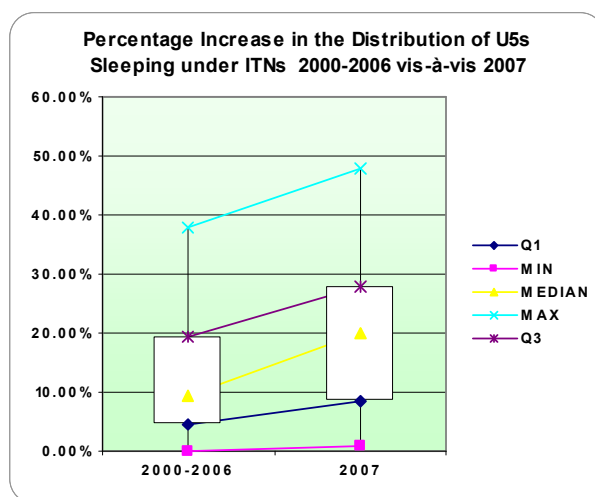
While it is important to note that these figures must still be validated, it is likely they are attributable to **intensive national distribution campaigns**. From 2004–2007, it is estimated that over 35 million ITNs have been delivered, mostly across Africa through routine net delivery systems by governments and supported by partners such as PSI, UNICEF, MC, AED and many of the national malaria coalitions and networks. In addition, a further 31 million ITNs have been delivered through campaigns supported by the CDC, the Red Cross, UNICEF and various members of the measles and malaria partnership. This combination of Catch-Up and Keep-Up supported by national ITN hang-up campaigns are proven approaches for cost effectively achieving global malaria prevention targets, as recommended by WHO and advocated for by RBM's Scalable Vector Control (WIN) Working Group.

<sup>3</sup> *Ibid*, pp. 51-55. When dismissing the outliers at the upper and lower registers, we find that most countries' HH levels fall between 22% and 54% coverage with any net, and only between 6% and 23% coverage with ITNs.

<sup>4</sup> Comparison made across 35 countries in Asia, Africa and S. American from data available in the UNICEF, WHO *World Malaria Report 2005* and the UNICEF, RBM *Children & Malaria Report, 2007*.

<sup>5</sup> The indicator of U5 under ITNs was chosen, as opposed to IPT or IRS, because validated data exists across a wide sample of countries.

**Figure 3**



Source: (2000-2006) UNICEF Africa Malaria Report 2003, UNICEF & RBM, *Children & Malaria 2007*, (2007 Projections) Global Fund Round 7 Proposals

Often these campaigns have not only distributed nets **free** of charge but have also been **integrated** with other campaigns, such as measles immunizations, bringing wider benefits to the health sector. Given that the average lifespan of an ITN can be as little as 6-9 months before retreatment is needed, and the average effective lifespan, barring damage, of a LLINs can be 3-5 years, it will be important to ensure appropriate emphasis is also placed on advocacy regarding proper usage, as well as retreatment and replacement policies.

These potential increases suggest that intensive national campaigns can be an important part of a package of interventions that should also include robust participation from civil society at the village and household level to ensure that the distribution is translated into usage, and that impact is sustainable.

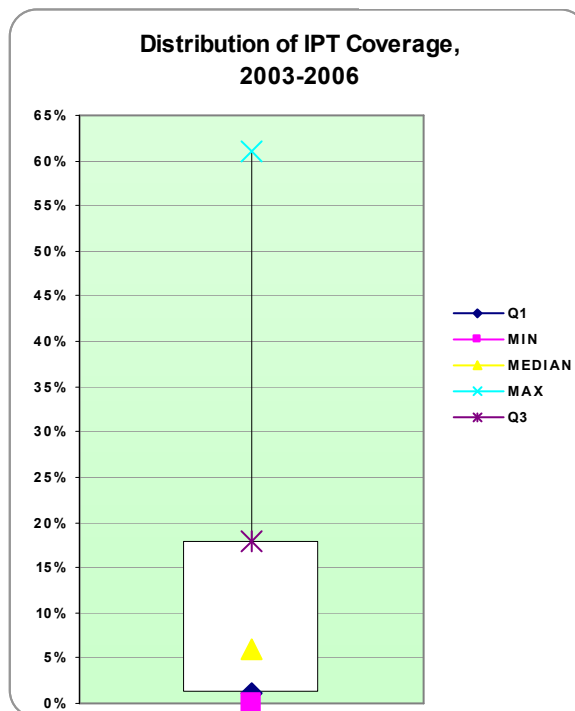
**Figure 4** shows the distribution of **intermittent preventive treatment (IPT)** coverage from 2003-2006 in a sample of 29 African countries for which data exists. Based upon UNICEF & RBM data, the box within the figure shows the 50% of countries grouped around the median, which is 6% coverage. Generally most countries fall within the range of that box, or between 1% and 18% coverage.<sup>6</sup> Despite these low figures, three quarters of African countries have adopted IPT as a part of their national malaria control strategy.<sup>7</sup>

Data availability regarding the usage of **indoor residual spraying**, or IRS, is uneven as well. However substantial resources are going to IRS. Looking only at PMI figures for 2007, nearly a fifth, or almost USD 24 million was earmarked for IRS activities in PMI supported countries in Africa. In the first year of PMI (2006), more than 2 million people in the first three target countries (Angola, Tanzania/Zanzibar and Uganda) were protected due to IRS and there are plans to expand this in coming years.

More current data is unfortunately not available with regard to IPT or IRS. Global Fund Round 7 proposals shows that the service delivery area of IRS was the lowest, with only 4 RBM-supported countries applying for Global Fund financing for this activity. IPT was just ahead of it, with six RBM-supported countries applying for GF financing. This evidence does not suggest that these areas are being neglected, only that a large number of countries are currently not seeking GF financing to conduct these activities.

A common theme emerging from coverage and usage is **limitation of the data**. Often data across all indicators (e.g. ITN, ACT, IPT, IRS, et al.) for each country is not available, hampering our ability to see a country's current status, or indeed its progress, or lack thereof, over time at all intervention levels. Moreover, the data is dated, sometimes reaching back four years to 2003. Many of the figures above, including **Figure 4**, contain data from some

**Figure 4**



Source: UNICEF & RBM, Malaria & Children, 2007

<sup>6</sup> UNICEF & RBM, Malaria & Children, 2007, p. 27.

<sup>7</sup> UNICEF & RBM, Malaria & Children, 2007, p. 28. Many of the countries that have not adopted IPT have a large part of their population in low-intensity transmission areas and therefore are not recommended to adopt such a policy. For a list of the current treatment policies of all countries in WHO's AFRO region, please refer to [http://www.who.int/malaria/amdp/amdp\\_afro.htm](http://www.who.int/malaria/amdp/amdp_afro.htm). For information regarding treatment policies from all of WHO's regions, please see <http://www.who.int/malaria/treatmentpolicies.html>.

countries from 2003 and other countries from 2006, simply because that is the only validated data available. However, comparing different countries at different points in time will not necessarily give us the comparative picture of country progress sought.

It is expected that over the course of 2008, twelve to twenty **Malaria Indicator Surveys** will be launched which should provide a wealth of new data that better captures the current status and progress being made in countries. Extending these surveys to more countries, and increasing their frequency would allow us to see in much more accurate terms the situation on the ground for the people we are trying to help.

- **Taxes & Tariffs**

**D**ESPITE THEIR URGENT NEED, a variety of anti-malarial commodities continue to face barriers to entry in the countries which often need them most. This applies to ITNs, LLINs, insecticides and treatment kits. The barriers placed on these items generally take the form of **import duties** and **VAT** however they can take the form of a variety of other restrictions which impede importation, such as foreign exchange controls, import permits and licenses, and import quotas.

The situation remains troubling across Africa. According to **NetMark**, from a sample of 17 countries which the organization has targeted, only two have thus far completely removed barriers on ITNs, LLINs and insecticides. Though two other countries have removed such restrictions on ITNs and LLINs, they maintain them on insecticides. A further four countries apply reduced taxes and tariffs to ITNs and LLINs, and maintain them on insecticides. Dialogue is ongoing with by far the largest group, comprising 9 countries, to reduce these barriers.<sup>8</sup>

Regrettably, this falls short of what leaders pledged at the **Abuja Summit** in April 2000. At that time, over seven years ago, Heads of State pledged, "to reduce or waive taxes and tariffs for mosquito nets and materials, insecticides, anti-malarial drugs and other recommended goods and services that are needed for malaria control strategies."

In addition to Netmark's sample, the eight **UEMOA**<sup>9</sup> countries have removed restrictions on ITNs and LLINs, but maintain them on insecticides. However, it is important to note that regional organizations such as **ECOWAS** in theory have zero rated a number of these commodities, such as ITNs, LLINs and related insecticides, which is welcome news. Related to these imports, antimalarial drugs that are dubbed "essential medicines" are also meant to be exempt from all taxes and tariffs. As scale up for impact progresses over the coming years regular monitoring of the extent to which countries are living up to their Abuja commitments will be an important indicator of progress, while proactive planning, engagement and advocacy to country partners where shortcomings have been identified will be necessary.

- **Expansion of the Partnership Base**

**I**MPORTANTLY, THE RBM PARTNERSHIP to fight malaria is expanding and deepening beyond the classic mix of health sector actors, bilaterals and multilaterals to embrace a more diverse range of partners, all with their own unique comparative advantage. **Malaria No More**, **the Global Business Council** and **the Coalition of Parliamentarians** all bring important value added to the struggle against malaria, as they cut across the gamut of NGO, private business and public sectors.

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<sup>8</sup> NetMark, Scalable Malaria Vector Control Meeting (WIN), Basel, Switzerland, 24-26 October 2007. See <http://www.netmarkafrica.org/Policy/The%20Status%20of%20Taxes%20and%20Tariffs%20in%20Africa.pdf> for the status of taxes and tariffs on a country by country basis.

<sup>9</sup> The West African Economic and Monetary Union (UEMOA, under its French abbreviation) is a customs and monetary union of eight of the countries of the Economic Community of West African States (ECOWAS) that share the CFA franc currency.



The establishment of **UNITAID** just over one year ago by France, Brazil, Chile, Norway and the United Kingdom brought an important new partner, an international drug purchase facility, to the fight against malaria, as well as HIV/AIDS and Tuberculosis. In the last year, almost 20 countries, including many endemic countries have joined UNITAID. The impact of UNITAID is already being felt: in partnership with UNICEF and WHO, UNITAID delivered 670,000 lifesaving treatments of ACT to **Liberia** in June 2007 and more than 700,000 treatments to **Burundi** in August. The flexible and timely response UNITAID has shown to partner countries to help fill gaps and shortfalls is a vital contribution to the fight against malaria.

The **Islamic Development Bank** has also launched a malaria initiative in 2007, and has already committed more than USD 20 million to three countries in Africa. It expects to commit a similar amount to more countries in the coming year.

- **Harmonization & Alignment**

**W**ELCOMING NEW PARTNERS into the fold must also be done with a strong focus on the principle of alignment. Ensuring that partners are aligned through concerted activities and a coordinated philosophy is critical to guard against what can easily become the fragmentation of effort and the dissipation of impact. In this regard, the British Prime Minister Gordon Brown's **Global Health Partnership Initiative** which emphasizes a holistic, coordinated response, as well as emphasizing national ownership, appears particularly prescient and promising, with a potential to benefit not only action against malaria, but a host of other global health concerns.

Central to efforts to scale-up for impact is the availability and the effective use of **resources**. Yet other resources and tools are needed beyond increased financial and human resource support. Aligned action and harmonized work of actors across all mechanisms of the RBM Partnership is a predicate to achieve this success. The breadth of this partnership is vast, embracing the private sector, the community of non-governmental organizations, multilateral institutions, research groups, academia, foundations and many others. However, the one partner who is central to all of these efforts, and whose commitment to the partnership and stake in its results is of perhaps the greatest significance is the endemic country.

A key milestone toward greater alignment is the **harmonized work plan**<sup>10</sup> prepared for the first time by the RBM Partnership. Combining the work streams of all partnership mechanisms, including Working Groups, Sub-Regional Networks and the Secretariat, this workplan is an important step toward even greater harmonization across still broader bands of actors involved in malaria control efforts. One of the important goals contained within that work plan is to enable the RBM Partnership to provide managerial support, expert advice, interfacing, facilitation and advocacy so that 45 countries, or 100% of malaria endemic countries in Africa, are able to generate country-specific, technically and operationally feasible SUFI plans.

- **Research & Development**

Exciting developments are already occurring or are on the horizon with regard to medicines, vaccines and other tools to help control, combat and cure malaria.<sup>11</sup> The **Gates Foundation** is at the forefront of funding these efforts and shared the results and potential breakthroughs currently underway at the Malaria Forum recently held in Seattle. These include an experimental new vaccine, RSS,S coming out of the **Malaria Vaccine Initiative**, which has already gone through a preliminary field test, with promising results, in Mozambique. Larger scale tests will be initiated in 2008 across 10 sites in Africa.

<sup>10</sup> It is important to note that the production of the first harmonized work plan of the Partnership, while having been a collaborative and iterative process involving all relevant actors, has in many respects become a critical and unique function of the Secretariat, and one that it has willingly taken upon itself: to manage the process, oversee and validate the content and monitor its implementation in the coming year.

<sup>11</sup> See [http://www.gatesfoundation.org/GlobalHealth/Pri\\_Diseases/Malaria/Announcements/Announce-071007.htm](http://www.gatesfoundation.org/GlobalHealth/Pri_Diseases/Malaria/Announcements/Announce-071007.htm) for more details.



**The Medicines for Malaria Venture** continues to provide critical research in the area of treatments to overcome resistance to existing drugs and is also looking forward to expected regulatory approval of a new and improved treatment for children. Meanwhile, the **Innovative Vector Control Consortium** is developing new and better tools, such as insecticides, that should make a lasting impact on malaria prevention activities. **The Foundation for Innovative Diagnostics** (FIND) has also set out to improve the quality of what can often be variable rapid diagnostic tests, as well as to establish quality control mechanisms for purchases made by the public sector, both of which should be supplemented with operational impact studies.

The Gates Foundation has also developed innovative, cost-sharing partnerships with the private sector, for example **GlaxoSmithKline**, to assist in the development of a malaria vaccine. This wide diversification of activities and partners should improve the chances of a breakthrough in the coming years.

- **Targeted Advocacy**

**A**N IMPORTANT FEATURE OF EXPANDING AND STRENGTHENING PARTNERSHIPS, as well as raising awareness and resources, is advocacy. In 2007 a wide array of advocacy events were conducted, including **Africa Malaria Day** which is held on the 25<sup>th</sup> of April each year since the summit held in Abuja, Nigeria in 2000. As a result of a decision by the **World Health Assembly**, the first **World Malaria Day** will be held in 2008 and signals an important step toward involving all countries, whether malaria endemic or not, whether North or South, in marking the occasion.

A series of targeted advocacy efforts were initiated by RBM partners including the **United Nations Foundation, Malaria No More, VOICES, Global Health Council, World Bank**, and the **Malaria Control and Evaluation Partnership in Africa (MACEPA)** at **PATH** with the objective of securing either additional resources or ensuring malaria was maintained high on the global health agenda.

Keeping malaria control high on the global health and development agenda is important so that key decision makers remain sensitized to the issue and understand that it is a global health priority. Toward this end, a number of activities were initiated focusing on the **United States Congress**, including multiple briefings and meetings to ensure awareness was not only sufficiently high and the profile of malaria control activities well-known, but also to gain specific financial commitments. Another important fixture in relation to this was the **White House Summit** held in the past year.

Advocacy activities also centered on ensuring the **Global Fund Replenishment** was successful. This went beyond merely ensuring the replenishment in Berlin, but expanded to also ensure that the Global Fund community was kept apprised of developments in the field of malaria, as well as the substantial undertaking, including by RBM's Harmonization Working Group, and the resources required, to make scale up for impact work at the country level.

Advocacy also targeted **Ambassadors from African countries** in the US to help them better understand the types of actions their governments could initiate to assist in the fight against malaria, including identification of **bottlenecks**, such as health worker density, per capita government expenditure, and government expenditure on health as a percentage of total government expenditure.

With regard to health worker density, WHO's 2006 World Health Report indicates that the threshold **density of health workers** (doctors, nurses and midwives) per 1000 population is at least 2.28. However, from a sample of 36 African countries for which data exists, only one meets this threshold level, indicating that the remainder are experiencing a critical shortfall with regard to health workers.



In the area of **per capita government expenditure on health**, the Final Report of the Commission on Macroeconomics and Health indicates that, on average, a package of essential health interventions to cost around 34 international dollars (I\$) per capita per year. Yet twenty-five of the thirty-six African countries are below this threshold. Finally, with regard to **government spending on health** as a percentage of total government spending, thirty-two of thirty-six African countries, or nearly 90%, are below 15%. These types of numbers indicate the critical need for advocacy amongst key high-level governmental actors to address some of these bottlenecks which are hindering current progress.

In order to gain buy-in from important partnership groups, as well as to raise the awareness for the need to develop an Africa-wide strategy to eliminate malaria, meetings were held with key ministers from African countries, including ministers of health, and at the **African Union** to deepen the understanding of their role in the fight against malaria, and their role on the RBM Partnership Board.

**Malaria Champions** like Yvonne Chaka Chaka and Princess Astrid of Belgium also helped raise the profile through advocacy and visits to Africa, notably Tanzania and Madagascar. Additionally, a number of important **reports** were launched in 2007 and which gained wide publicity in the press, including the World Bank's Progress Report on the Booster Programme in October 2007, UNICEF's Children & Malaria Report, and the First Annual Report of the President's Malaria Initiative in the spring.

Most recently, the **Gates Malaria Forum** was held over three days in Seattle, bringing together a wide range of leading researchers, scientists, experts and policymakers to discuss progress made in the struggle against malaria and highlighting the need to raise expectations and ambitions in the fight - towards elimination and eventual eradication of the disease.

### III. Country Success

**T**HE RESULTS AND TANGIBLE IMPACT these actions are having in countries can be immense. It is important that the malaria landscape include these success stories from the field, and the impact that success is already having on the health of populations. However, since information currently only exists for a small number of countries, not every country where impact may be felt has been captured in this report. It is expected that for future reports the landscape will be able to highlight achievements across a far wider range of countries than we are currently able to show.

Where we do actually see a controlled downward trend in morbidity and mortality over the course of a number of years, is in **Eritrea, Namibia, Swaziland, Zambia, and Zanzibar**.

In **Eritrea**, the numbers have been steadily decreasing over six years. Though over 175,000 out-patient department (OPD) cases were registered in 1999, Eritrea has seen that number decline by over 70%, to less than 50,000 by 2005.<sup>12</sup> One hundred and seventy five malaria deaths were recorded in 1999; fewer than fifty occurred in 2005.<sup>13</sup> While there have been fluctuations, the trend continues downward. The overall malaria burden in relation to other health burdens has also been reduced: in 2001, malaria was the third cause of inpatient deaths for under fives and the number one cause for those five years and older. In 2006, malaria had fallen to the ninth cause for under five deaths and was ranked tenth for those five and older.<sup>14</sup>

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<sup>12</sup> East and Southern Africa Annual Malaria Review and Planning Conference, Conference Report, 14-18 August 2006, p. 26.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*



It is important to note that while 2005 saw a small spike in the incidence due to heavier rainfalls versus 2004, that spike was undoubtedly far more controlled than it otherwise would have been. Though there was some erosion of the gains made in 2004, the impact malaria made in 2005 was not as heavy as it had been in 2003 or any time before. This suggests that while Eritrea may still be vulnerable to unpredictable seasonal factors, the impact those factors have is less than previously experienced. Importantly, Eritrea attributes this success to a variety of factors, including high ITN coverage, rapid and effective treatment, commitment from the government and health personnel, and strong national and international partnerships.

**Namibia** has also seen a relatively dramatic drop in OPD malaria cases; from a high of 700,000 in 2001, that number has been cut almost in half to 400,000 in 2005.<sup>15</sup> **Zanzibar** has also seen the proportion of OPD monthly cases attributed to malaria decline from a high of nearly 70% in July 1999 to 43% in December 2004.<sup>16</sup> The proportion of malaria cases has dropped across all age groups, including children under 5. While still susceptible to some monthly fluctuations, the upward peaks are steadily decreasing and show no signs of approaching the levels witnessed in 1999.

Laboratory confirmed cases of malaria during 2000-2001 in **Swaziland** stood at 1,400. In 2005-2006, those numbers had contracted by almost 60% to just over 400 confirmed cases.<sup>17</sup> Malaria mortality has been declining across all age groups as well; amongst children under five the numbers have declined for five consecutive years, for an overall decline of almost 80% from 2001 to 2006.

Since 2003, total deaths attributed to malaria, as well as the deaths of under fives attributed to the disease, have been declining in **Zambia**. From a high of almost 9,000 deaths in 2003, that number has fallen by almost a third to 6,500 in 2006. Since 2001, the total deaths of children under five has fallen from 5,500 to 3,500. While the numbers are still unacceptably high, they reflect real progress and impact in the fight against malaria.

Though the above shows the high-level progress being made toward reducing the burden in terms of mortality and morbidity associated with malaria, there is real progress in terms of coverage being made in other countries that should, in the coming years, translate into a reduction in the burden of malaria.

A new study focusing on **Kenya's** experience with differing methods of ITN distribution makes an important contribution to our understanding of how rapid scale up of activities and exponential growth in population coverage can be achieved.<sup>18</sup> Charting the shift in beneficiary coverage over the course of three years when bed nets went from being a socially marketed, yet still relatively unaffordable commodity for the lowest economic quintiles, to a heavily subsidized product available through clinics and finally to being freely given away through massive nationwide campaigns, we can see the evolutionary jumps in beneficiary catchment at each stage.

In the target districts, children under the age of five sleeping under any net went from 13% in 2004-2005 to over 80% in 2006-2007 thanks in large part to the policy of free distribution which provided the breakthrough necessary to reach the poorest households. The achievements recorded in Kenya are impressive and encouraging; it will be important to monitor and facilitate if and when needed the progress Kenya makes in extending these benefits in a sustainable manner to the entire population at risk.

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<sup>15</sup> *Ibid*, p. 35.

<sup>16</sup> Ministry of Health and Social Welfare, Zanzibar Malaria Control Programme, Overview of Malaria Situation in Zanzibar, presentation, 19 July 2006.

<sup>17</sup> East and Southern Africa Annual Malaria Review and Planning Conference, Conference Report, 14-18 August 2006, p. 40.

<sup>18</sup> Noor, Abdusalim M., Abdinasir A. Amin, Willis S. Akhwale & Robert W. Snow, "Increasing Coverage and Decreasing Inequity in Insecticide-Treated Bed Net Use among Rural Kenyan Children", Public Library of Science Medicine, Volume 4, Issue 8, August 2007, pp. 1341-1348.



Additionally, there are potential spill-over benefits for improved health when free distribution campaigns are combined with other campaigns, such as measles and polio immunizations, deworming or vitamin A supplements. As seen with the Affordable Medicines Facility for malaria, the importance of approaches such as **integrated campaigns** is that they emphasize equitable access and appear to be the most effective way to reach Africa's rural poor.

Despite the fact that the data still requires verification, there are likely significant gains accruing from intensive national distribution of LLINs occurring in a number of other countries, including **Ethiopia, Togo, Niger, Madagascar, Mali** and **Benin**.

In **Ethiopia** alone, 18 million nets have been distributed, ensuring up to 3 nets per household. It will be important that we capture the outcome in terms of mortality and morbidity associated with malaria resulting from this impressive campaign.

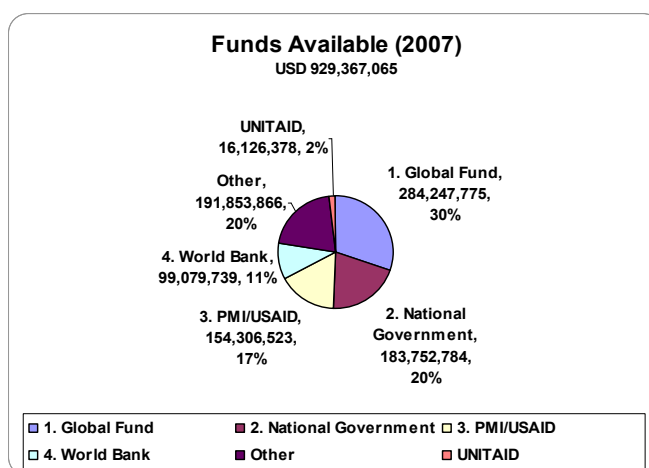
A number of integrated campaigns have also been launched. In **Togo**, 94% coverage of the target population is said to have been reached through its own intensive integrated malaria/measles campaign. A recent campaign in 2007 in **Niger** has distributed 2.25 million LLINs, reaching 87% of children under five in an integrated malaria/polio campaign. **Madagascar** has distributed approximately 1.5 million nets in an integrated malaria/measles campaign. **Benin** has combined a massive distribution campaign of 1.6 million bed nets with measles immunizations and vitamin A, and **Mali** has followed the same approach, integrating measles immunizations and vitamin A with the distribution of 2.242 million ITNs.

Figure 5

#### IV. Resources Available in 2007

- **Mobilization of Existing Resources**

**N**EARLY ONE BILLION DOLLARS was made available from almost fifty different sources to combat malaria in 39 African countries for which data exists in 2007 (**Figure 5**). Recent estimates<sup>19</sup> put the resources required to control malaria annually **in Africa at USD 2.2 billion**. While the Global Fund continues to provide the largest share, it is especially encouraging to note that the second largest source comes directly from governments and other national sources within the countries themselves, indicating a high degree of national commitment and ownership.



Source: Global Fund Disbursement Reports, Round 6 & 7 Global Fund Proposals

However, as already indicated in this report, 90% of African countries are below the 15% government expenditure threshold.<sup>20</sup> This indicates that while government commitment is strong relative to other sources, it needs to grow more rapidly if the scale and impact that is necessary to meet 2010 targets is to be attained.

- **Mobilization of Additional Resources**

<sup>19</sup> World Bank, The World Bank Booster Program For Malaria Control in Africa, Scaling-Up for Impact (SUF), a Two Year Progress Report, October 2007, p. 10.

<sup>20</sup> WHO, World Health Statistics 2007, pp. 64-72.

**T**HE 11TH RBM PARTNERSHIP BOARD endorsed the concept of harmonization of partner efforts to help countries scale-up for impact by mobilizing resources; overcoming bottlenecks; and establishing the 'Three Ones' (one coordinating mechanism, one plan and one M&E system) at the country level.

The Board mandated the **Harmonization Working Group** (HWG) to facilitate these actions. The purpose of the HWG is twofold:

- To develop a formal partnership mechanism to facilitate and harmonize partners' timely support in response to countries identified needs.
- To support the establishment of the 'three ones' at country level.
- To provide implementation support (through MIST)

Membership of the HWG includes technical, implementation and financing institutions from constituencies with representation on the RBM Board, such as malaria endemic countries, WHO, UNICEF, the World Bank, UNICEF, USAID/PMI, the Global Fund, NGOs, the UN Foundation and the Gates Foundation, the private sector and academia.

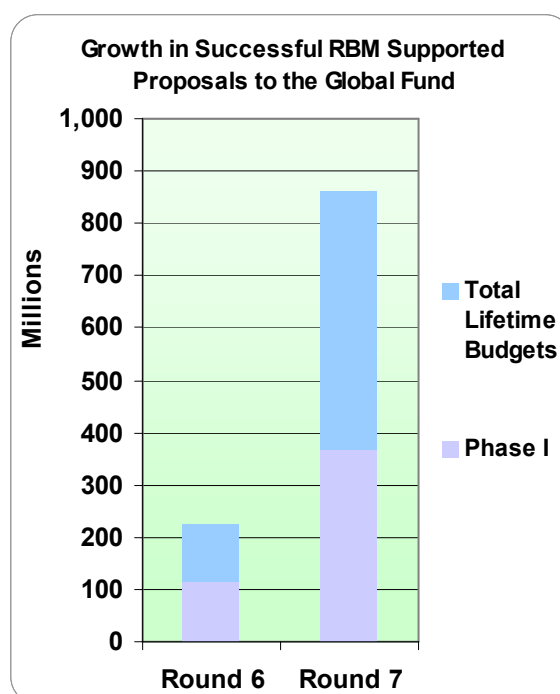
Large-scale support was launched by the HWG to assist countries in preparation for Round 7 of the Global Fund. While a great deal of support was rendered by the HWG, other Partnership mechanisms, such as Sub-Regional Networks provided support to the proposal preparation process as well.

In terms of funding, **Round 7** was the most successful round for malaria components the Global Fund has ever seen (**Figure 6**). The success of proposals targeting malaria has been attributed to a greater internal consistency and coherence, as well as a greater emphasis on scaling up interventions to help more people. Round 7 achievements can be summed up as follows:

- ❖ Successful malaria proposals gained over USD 450 million for Phase I and over USD 1 billion for the entire 5 years;
- ❖ Malaria components received 42% of Round 7 funding, nearly doubling the result from Round 6 (24%);
- ❖ RBM supported more than half (54%) of all successful GF malaria proposals submitted globally;
- ❖ RBM supported almost all (94%) of successful GF malaria proposals submitted from Africa;
- ❖ RBM supported proposals equal almost USD 400 million for Phase I and potentially over USD 850 million for 5 years, accounting for more than 80% of malaria component funding.

For the first time, the Global Fund allowed countries with high performance and expiring grants to apply for an RCC, or **rolling continuation channel**, to expand upon their previous proposal

**Figure 6**



Source: Global Fund

and to receive funding for an additional five years. RBM supported all malaria RCCs from Africa, or three RCCs in total, and received 100% funding for all.

In total, RBM supported 27 proposals, of which 18 were successful, for a success rate of 67%, against 54% in Round 6, indicating that while achievements are gaining momentum, there is still room for improvement.

These enormous gains must be consolidated rapidly. The next steps will be to support these successful Round 7 countries to facilitate and prioritize the negotiation process and rapidly sign their grants. The experience of Round 6 shows that without systematic coordinated support to sign grants the money does not move fast enough for countries to begin implementation of their plans.

However, there are significant challenges that need to be acknowledged. **Scale-Up for Impact**, or SUFI, is central to ongoing efforts to provide coverage of 80% of the populations at risk. To what extent are countries planning for SUFI? Drawing upon evidence gathered from proposals prepared for the Global Fund's Round 7, particularly the programmatic gap analysis supplied by countries themselves, **just over a third of countries** are either at or very near planning for SUFI in 2007.<sup>21</sup>

While this data is limited to the service delivery area of insecticide treated nets, and, moreover, limited to those countries that applied for Round 7 funding, it shows that SUFI principles are actively being used in the planning and operations of a number of countries, but still not all. More work still needs to be done in this regard. Despite all RBM-supported proposal submitted for Round 7 employing the language of 80% coverage, the majority continue to think in terms of vulnerable groups, such as pregnant women and children under five, and not the entire population at risk.

## **V. Next Steps & Challenges Ahead**

**T**O STEP UP THE FIGHT AGAINST MALARIA, both greater scale and wider impact at the country level is needed. This will require a systematic and comprehensive consolidation of achievements already recorded and resources already secured, as well as continued exponential expansion in those areas where progress has been slower or stymied for whatever reason. None of this will be possible, however, without access to greater resources from both existing and additional sources.

With that end in mind, a series of mutually reinforcing strategies outline the shape of activities to come and **were the basis for the 2008 Harmonized Work Plan:**

- **Secure more resources from more sources, including national funding:** Ensure that approved proposals are signed rapidly through facilitating the negotiation process, which will require a strong advocacy component.
- **Expand SUFI planning and operations to all 45 Malaria Endemic Countries in Africa:** Focus on needs assessment and gap analysis, validation, and resource mobilization, particularly next year's Round 8 of the Global Fund.
- **The Challenge of Large Countries:** It is important to recognize that some countries will present larger challenges than others and the extent of those challenges needs to be properly discussed. Though **Nigeria** and **the Democratic Republic of the Congo** are only two of the forty-five endemic countries in Africa, they represent nearly 30% of the

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<sup>21</sup> All data was extrapolated directly from Round 7 Proposals prepared by the countries; in particular Table 4.4.1. Overall Programmatic Needs Assessment as well as 4.3.2. Epidemiological and Disease-Specific Background.



entire population at risk in Africa. Both of these countries face a challenging upward climb to scale up for impact. Those challenges must be realistically assessed and adequate support must be mobilized quickly if this significant proportion of people is to be helped.

- **Move towards or maintain outstanding performance scorecards** : Ensure a high level of grant performance , with at least 95% of countries currently getting funding, keeping it and at least 80% of countries with existing GF assistance performing at A or B1 grades.
- **Build upon and bring the success of Round 7 to Round 8**: Round 7 results are poised to set a new benchmark in malaria financing from the Global Fund. In order to achieve SUFI in all endemic countries, far greater resources than are currently available or accessed are needed. RBM plays an important role in facilitating proposal development at the country level and must continue and expand these operations to embrace more countries and wider, more ambitious plans. At least 60% of RBM supported proposals must be successful next year.
- **Coordinated support and action**: The recently completed Harmonized Work Plan is a critical step to scaling-up the Partnership's work, but planning needs to move beyond the short term if the Partnership is to contribute in a substantial and sustainable manner to malaria's ultimate eradication. This should be addressed in the coming months directly in the Global Malaria Business Plan, currently under development.
- **Verified Data Sources** are pivotal to not only attribute benefit and measure progress, but also to target resource allocation. With this in mind, a new database is set to be launched in 2008 spearheaded by WHO's African Regional Bureau to track, across a variety of indicators, malaria control efforts in Africa. Moreover, the Partnership hopes to launch Malaria Indicator Surveys in 12-20 countries in the coming year.

## VI. Conclusion

**T**HIS REPORT HAS HIGHLIGHTED that the resources that have been made available in the past have been translated into concrete results in a number of countries and across a variety of interventions. Yet even more commitments, including financial resources, are required to achieve greater success and impact for all of the people at risk of malaria in Africa and beyond.

Building on this is the challenge presented at the Gates Malaria Forum in Seattle which has fixed the **elimination and eradication of malaria** as the long-term goal of all anti-malarial efforts. This recent challenge provides a new framework and lens which must be discussed throughout the entire anti-malaria community to understand its ramifications on activities, planning, operations and resource commitments.

This dialogue has only recently begun, but holds the potential to radically alter the malaria landscape, both now and in the future. In this context, the **Leadership Summit** vision and commitment to the elimination and eradication of malaria as the long-term goal, and the acknowledgement that the existing Roll Back Malaria Partnership structures must be rapidly enhanced to facilitate scale up, particularly through a **design and implementation support team** committed to the vision of malaria eradication, will serve as an important milestone towards the fulfillment of the final outcome: a world without malaria.



## ANNEX I: CURRENT STATUS IN AND GAP ANALYSIS OF AFRICAN COUNTRIES VIS-À-VIS KEY MALARIA CONTROL INDICATORS AND TARGETS<sup>22</sup>

No.	Country/Intervention	Percentage of Households with at least one insecticide treated net			Percentage of febrile children receiving antimalarial medicines on the same or next day			Percentage of Pregnant Women receiving Intermittent Preventive Treatment		
		2003-2006	Gap to 2005 Target (Abuja) (60% coverage)	Gap to 2010 Target (80% coverage)	2003-2006	Gap to 2005 Target (Abuja) (60% coverage)	Gap to 2010 Target (80% coverage)	2003-2006	Gap to 2005 Target (Abuja) (60% coverage)	Gap to 2010 Target (80% coverage)
1	Algeria	-	-	-	-	-	-	-	-	-
2	Angola	-	-	-	-	-	-	-	-	-
3	Benin	25%	-35%	-55%	25%	-35%	-55%	3%	-57%	-77%
4	Botswana	-	-	-	41%	-19%	-39%	-	-	-
5	Burkina Faso	23%	-37%	-57%	19%	-41%	-61%	1%	-59%	-79%
6	Burundi	8%	-52%	-72%	-	-	-	3%	-57%	-77%
7	Cameroon	20%	-40%	-60%	38%	-22%	-42%	6%	-54%	-74%
8	Central African Republic	17%	-43%	-63%	42%	-18%	-38%	9%	-51%	-71%
9	Chad	-	-	-	-	-	-	-	-	-
10	Comoros	8%	-52%	-72%	-	-	-	-	-	-
11	Congo	-	-	-	22%	-38%	-58%	-	-	-
12	Congo, Dem. Rep. of the	-	-	-	-	-	-	-	-	-
13	Cote d'Ivoire	6%	-54%	-74%	26%	-34%	-54%	8%	-52%	-72%
14	Djibouti	18%	-42%	-62%	3%	-57%	-77%	-	-	-
15	Equatorial Guinea	-	-	-	-	-	-	-	-	-
16	Eritrea	-	-	-	2%	-58%	-78%	-	-	-
17	Ethiopia	3%	-57%	-77%	1%	-59%	-79%	-	-	-
18	Gabon	-	-	-	-	-	-	-	-	-
19	Gambia, The	50%	-10%	-30%	52%	-8%	-28%	33%	-27%	-47%
20	Ghana	19%	-41%	-61%	48%	-12%	-32%	27%	-33%	-53%
21	Guinea	1%	-59%	-79%	14%	-46%	-66%	3%	-57%	-77%
22	Guinea-Bissau	44%	-16%	-36%	27%	-33%	-53%	7%	-53%	-73%
23	Kenya	6%	-54%	-74%	11%	-49%	-69%	4%	-56%	-76%
24	Lesotho	-	-	-	-	-	-	-	-	-
25	Liberia	6%	-54%	-74%	-	-	-	-	-	-
26	Madagascar	-	-	-	-	-	-	-	-	-
27	Malawi	36%	-24%	-44%	20%	-40%	-60%	45%	-15%	-35%
28	Mali	-	-	-	-	-	-	-	-	-
29	Mauritania	1%	-59%	-79%	12%	-48%	-68%	-	-	-
30	Mozambique	-	-	-	8%	-52%	-72%	-	-	-
31	Namibia	-	-	-	-	-	-	-	-	-
32	Niger	43%	-17%	-37%	25%	-35%	-55%	0%	-60%	-80%
33	Nigeria	2%	-58%	-78%	25%	-35%	-55%	1%	-59%	-79%
34	Rwanda	15%	-45%	-65%	3%	-57%	-77%	0%	-60%	-80%
35	Sao Tome and Principe	36%	-24%	-44%	17%	-43%	-63%	-	-	-
36	Senegal	20%	-40%	-60%	12%	-48%	-68%	9%	-51%	-71%
37	Sierra Leone	5%	-55%	-75%	45%	-15%	-35%	2%	-58%	-78%
38	Somalia	12%	-48%	-68%	3%	-57%	-77%	1%	-59%	-79%
39	South Africa	-	-	-	-	-	-	-	-	-
40	Sudan	-	-	-	-	-	-	-	-	-
41	Swaziland	-	-	-	-	-	-	-	-	-
42	Tanzania, United Rep. of	23%	-37%	-57%	51%	-9%	-29%	22%	-38%	-58%
43	Togo	40%	-20%	-40%	38%	-22%	-42%	18%	-42%	-62%
44	Uganda	16%	-44%	-64%	29%	-31%	-51%	17%	-43%	-63%
45	Zambia	44%	-16%	-36%	37%	-23%	-43%	61%	1%	-19%
46	Zimbabwe	9%	-51%	-71%	3%	-57%	-77%	6%	-54%	-74%

<sup>22</sup> UNICEF & RBM, Malaria & Children, Progress in Intervention Coverage, 2007, pp. 51-55.

## **ANNEX II: ZAMBIA CASE STUDY**

The Government of Zambia's vision and commitment to a six-year national strategy was born of the serious and often lethal results of malaria's prevalence in the country. Annually, the deaths of up to 50,000 people in Zambia can be attributed to malaria, with a staggering 4 million cases, or a third of the population, clinically diagnosed each year. In response, the Government formulated an ambitious strategy with equally ambitious goals: the reduction of malaria incidence by 75% by 2011, which is expected to achieve a 20% decrease in all-cause child mortality.

These goals are being realized through four strategic interventions: distributing ITNs, utilizing IRS, IPT and effective case management with ACTs.

For malaria prevention services, mass distribution campaigns of ITNs have been central to the government's approach and have helped boost household ownership, regardless of economic status, of at least one ITN to nearly 50% (2006), or double where it was five years ago. Coverage, however, is not indicative of usage and the number of children sleeping under ITNs is less than 50% in households that own at least one. While the lag in usage may be troubling, it has also expanded the focus of activities to embrace behavioural change communication, a track that should be followed in parallel to distribution for heightened impact. The need for this is clear: Zambian children in households owning at least one ITN had 38% less fever illness, 51% less malaria infection, and 56% less severe anaemia than households without.

Efforts to scale up IRS in select districts have doubled in each of the previous two transmission seasons, although timing spray activities and logistics coordination have delayed the completion of spray activities. In 2007 spray activities began on time and operational coverage >85% of the target households has been attained before the onset of the rainy season, achieving its target in this area a year ahead of schedule. Zambia has exceeded the Abuja target of 60% coverage of pregnant women receiving two doses of IPT, remarkable since this intervention was first adopted as policy in 2003. This provides a strong foundation moving forward to reach Zambia's own target of 80% coverage by the end of 2008.

As in many countries, despite having switched the recommended first-line treatment to ACTs in 2003, uptake of the new therapies has been hindered through an initial lack of supply, increased cost, distribution problems and healthcare training issues. But those problems are being overcome with the positive result of 13% of febrile children receiving ACTs within 24 hours of the onset of illness, the highest percentage yet recorded in Africa.

The success of the Zambian strategy provides a number of critical lessons for countries seeking to rapidly scale up. Aggressively pursuing diverse means of both prevention and response should prove to heighten overall impact. Behavioural change communication, in addition to mass distribution, should serve to better translate coverage into usage. An important milestone was reached in 2006 with the deployment of the first Malaria Indicator Survey ever undertaken using tools provided by RBM's Monitoring and Evaluation Reference Group. The findings not only tell us where Zambia is and what the country has achieved, but they also convey with a high degree of precision what work remains to be done, and where resources may be more effectively channeled to produce results.

Key enablers of the strategy have been continued support from longstanding partners like UNICEF, WHO and USAID, and an influx of additional resources from new partners like the Global Fund, the World Bank's Malaria Booster Program, the US President's Malaria Initiative, the Japanese International Cooperation Agency, and the Gates Foundation through the Malaria Control and Evaluation Partnership in Africa (MACEPA), a program at PATH.

