



## The President's Malaria Initiative

Fifth Annual Report to Congress April 2011







# THE PRESIDENT'S MALARIA INITIATIVE



IMA World Health

A mother and daughter at a health center in the **Democratic Republic of the Congo** (DRC). In 2010, DRC and **Nigeria**, which together account for almost half of the burden of malaria on the African continent, became President's Malaria Initiative focus countries with the launch of important jump-start activities to prevent and treat malaria.

### EXECUTIVE SUMMARY

Over the past five years, substantial reductions have been recorded in mortality in children under five years of age, buttressed by improvements in malaria-specific indicators in all President's Malaria Initiative (PMI)-supported countries where baseline and follow-up nationwide household surveys were conducted. These reductions are due in large part to a dramatic scale-up of malaria prevention and treatment measures since 2005, thanks to the collective efforts of national governments; the U.S. Government (USG); the Global Fund to Fight AIDS, Tuberculosis and Malaria; the World Bank; other international donors; and multilateral and nongovernmental organizations. This report describes the role and contributions of the USG to reduce the burden of malaria in Africa and its impact on health systems. The activities and results described below represent the effect of the first four years of PMI funding (fiscal years 2006–2009), or approximately 60 percent of the \$1.265 billion requested for the Initiative.

PMI Contributions at a Glance						
Indicator <sup>1</sup>	Year I (2006)	Year 2 (2007)	Year 3 (2008)	Year 4 (2009)	Year 5 (2010)	Cumulative
People protected by IRS (houses sprayed)	2,097,056 (414,456)	18,827,709 (4,353,747)	25,157,408 (6,101,271)	26,965,164 (6,656,524)	27,199,063 (6,693,218)	N/A²
ITNs procured	1,047,393	5,210,432	6,481,827	15,160,302	17,532,839	45,432,793 (30,343,517 distributed)
ITNs procured by other donors and distributed with PMI support	_	369,900	1,287,624	2,966,011	10,856,994	15,480,529
IPTp treatments procured	_	583,333	1,784,999	1,657,998	6,264,752	10,291,082 (5,084,185 distributed) <sup>3</sup>
Health workers trained in IPTp/focused antenatal care	1,994	3,153	12,557	14,015	I4,I46⁴	N/A <sup>5</sup>
Rapid diagnostic tests procured	1,004,875	2,082,600	2,429,000	6,254,000	13,340,110	25,110,585 (16,104,306 distributed) <sup>3</sup>
Health workers trained in malaria diagnosis (RDTs and/or microscopy)	_	1,370	1,663	2,856	17,335	N/A <sup>5</sup>
ACT treatments procured	1,229,550	8,851,820	22,354,139	21,833,155	41,048,295	95,316,959 (67,509,272 distributed) <sup>3</sup>
ACT treatments procured by other donors and distributed with PMI support	_	8,709,140	112,330	8,855,401	3,536,554	21,213,425
Health workers trained in case management	8,344	20,864	35,397	41,273	36,458	N/A <sup>5</sup>

Data reported in this table are up to date as of January 1, 2011, and include 15 PMI focus countries, plus jump-start activities in DRC and Nigeria. In addition, during 2010, the USG provided support for malaria prevention and control activities in other countries. For data by country, see Appendix 2. With this 2011 report, some adjustments were made to previous years' procurement figures in order to reconcile quantities of commodities procured by each country in a given calendar year with the figures reported by implementing partners responsible for those procurements. These changes represent less than 2 percent of the total procurements for commodities.

<sup>2</sup> A cumulative count of people protected by IRS is not provided because most areas are sprayed on more than one occasion.

<sup>3</sup> Distributed to health facilities.

This total includes 964 health workers who were trained in focused antenatal care in Rwanda, where IPTp is not national policy.

A cumulative count of health workers trained is not provided because some health workers have been trained on more than one occasion.

#### Introduction

According to the World Health Organization (WHO) 2010 *World Malaria Report*, the estimated number of global malaria deaths has fallen from about 985,000 in 2000 to about 781,000 in 2009. Similar improvements were also documented in the 2010 United Nations Children's Fund (UNICEF) *Progress for Children* report and in a 2009 *Lancet* article, "Levels and trends in under-5 mortality, 1990–2008."

In spite of this progress, malaria remains one of the major public health problems on the African continent, with about 80 percent of malaria deaths occurring in African children under five years of age. Malaria also places a heavy burden on individual families and national health systems. In many African countries, 30 percent or more of outpatient visits and hospital admissions

<sup>&</sup>lt;sup>3</sup> You, D., et al. 2009. Levels and trends in under-5 mortality, 1990–2008. *The Lancet*, 375 (9709): 100–103.



Children carry home long-lasting ITNs they received free of charge during a universal coverage campaign in Eastern Region, **Ghana**. Over the past five years, PMI has protected millions of people from malaria by contributing to the dramatic scale-up of prevention and treatment coverage across its focus countries, including procurement of more than 45 million nets.

in children under five are reported to be caused by malaria. Economists estimate that malaria accounts for approximately 40 percent of public health expenditures in some countries in Africa and causes an annual loss of \$12 billion, or 1.3 percent of the continent's gross domestic product.<sup>4</sup> Because most malaria transmission occurs in rural areas, the greatest burden of the disease usually falls on families who have lower incomes and whose access to health care is most limited.

The President's Malaria Initiative was launched in June 2005 by President George W. Bush with a vision of five years of funding (fiscal year [FY] 2006–2010). This represented a \$1.265 billion expansion of USG resources to reduce the intolerable burden of malaria and help relieve poverty on the African continent. The goal of PMI was to reduce malaria-related deaths by 50 percent in 15 countries that have a high burden of malaria by expanding coverage of four highly effective malaria prevention and treatment measures to the most vulnerable populations—pregnant women and children under five years of age.

PMI is a major component of the **U.S. Government's Global Health Initiative** (GHI) announced by President Barack Obama in May 2009. The GHI builds on the commitment of the USG to address major global health concerns—including malaria, HIV/AIDS, tuberculosis, maternal and child health, nutrition, and neglected tropical diseases. Under the GHI, PMI is expanding its integration with maternal and child health and HIV/AIDS programs, strengthening partnerships, and continuing to build capacity in health systems.

With the Lantos-Hyde United States Leadership against HIV/AIDS, Tuberculosis, and Malaria Act and the launch of the GHI, PMI's goal has been expanded to achieve Africa-wide impact by halving the burden of malaria in 70 percent of at-risk populations in sub-Saharan Africa, i.e., approximately 450 million residents (see map on page 10).

In the past year, PMI has expanded its efforts as follows:

- Designed PMI programs and began implementation with jump-start activities in the Democratic Republic of the Congo (DRC) and Nigeria;
- Designed and implemented a nationwide expansion in Ethiopia (from a previous focus on Oromia Regional State alone); and

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World Health Organization. 2010. World Malaria Report: 2010. p. 60.

<sup>&</sup>lt;sup>2</sup> UNICEF. 2010. Progress for Children: Achieving the MDGs with Equity.

<sup>&</sup>lt;sup>4</sup> Gallup, J., Sachs, J. 2001. The economic burden of malaria. *American Journal of Tropical Medicine and Hygiene*, 64 (1,2) S: 85–96.

Designed a PMI program in the Greater Mekong Sub-region of Southeast Asia, where resistance to artemisinin drugs—the major component of the most widely used first-line malaria therapy in the world—has already been identified in several sites.

#### **Further Scale-Up of Malaria Control Measures**

Since 2006, contributions from PMI, together with prior USG assistance and the efforts of national governments and other donors, have resulted in a massive scale-up in the coverage of control measures across the original 15 PMI countries. During the last 12 months, in coordination with national malaria control programs (NMCPs) and other partners, PMI has assisted the 15 original focus countries to increase access to four proven malaria prevention and treatment measures: insecticide-treated mosquito nets (ITNs); indoor residual spraying with insecticides (IRS); intermittent preventive treatment for pregnant women (IPTp); and improved laboratory diagnosis and appropriate treatment, including artemisinin-based combination therapies (ACTs).

In 2010 alone, PMI procured more than 17 million longlasting ITNs, protected more than 27 million residents by spraying their houses with residual insecticides, and procured more than 41 million ACT treatments (see PMI Contributions at a Glance on page 3). In addition, PMI assisted with the distribution of more than 10 million long-lasting ITNs and 3.5 million ACT treatments procured by other partners, attesting to the growing and productive collaboration between PMI and other donors. PMI also trained tens of thousands of people in key aspects of malaria control in 2010, including more than 36,000 health workers in the diagnosis and treatment of malaria with ACTs. In all 17 focus countries and the Greater Mekong Sub-region, PMI supported pharmaceutical management, laboratory diagnosis, and other health systems strengthening and capacity-building activities.

#### **Increasing Coverage**

Now, five years after PMI was launched, dramatic improvements in the coverage of malaria control measures are being documented in nationwide household surveys. Although such surveys are the best way to measure population coverage with health interventions, they are typically repeated only every two to three years. During the past four years, nine PMI countries, Ghana, Kenya, Malawi, Mali, Rwanda, Senegal, Tanzania, Uganda, and Zambia, have reported results of nationwide household surveys that allow a comparison with earlier nationwide



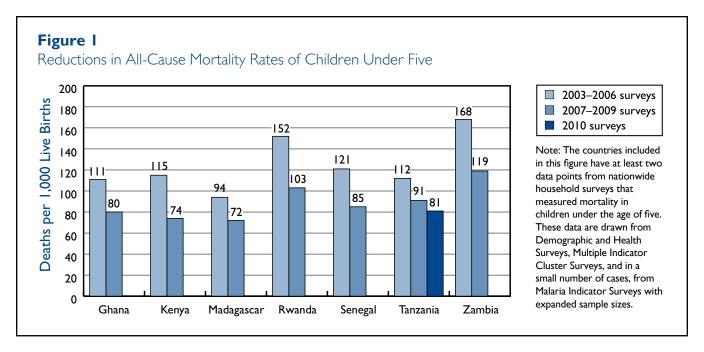
Malaria is a blood-borne parasitic infection transmitted by the bite of infected female Anopheles mosquitoes. In sub-Saharan Africa, the majority of infections are caused by Plasmodium falciparum, which causes the most severe form of the disease and almost all malaria deaths worldwide. Although all people living in malarious areas can be infected, children under five years of age, pregnant women, and people living with HIV/ AIDS are most affected by malaria.

household surveys used as the PMI baseline. In those nine countries, household ownership of one or more ITNs increased from the baseline range of 15 to 50 percent in 2004-2006 to 33 to 85 percent in 2007-2010. At the same time, usage of an ITN the night before the survey more than doubled from an average of 21 to 50 percent for children under five years and about the same amount for pregnant women. Over the same time period, the proportion of pregnant women who received two or more doses of IPTp for the prevention of malaria increased from an average of 24 to 43 percent.

Due to the increases in ITN ownership and use, and IPTp uptake, together with the many millions of residents protected over the past four years by PMI-supported IRS, a large proportion of at-risk populations in the PMI focus countries are now benefiting from highly effective malaria prevention measures. In the remaining PMI focus countries, follow-up nationwide household surveys will be completed between 2011 and 2013.

Although most African countries did not adopt ACTs as their first-line treatment for malaria until 2003–2004, these highly efficacious drugs are now widely available in public health facilities throughout Africa. For example, nationwide surveys carried out in late 2008 and early 2009 in Benin, Madagascar, Uganda, and Zambia by ACT Watch<sup>5</sup> showed that between 66 percent (Benin)

<sup>5</sup> www.actwatch.info



and 86 percent (Madagascar) of public health facilities surveyed in the four countries had the country's first-line ACT in stock on the day of the survey.

## Impact on Malaria and Mortality in Children Under Five Years of Age

Nationwide household surveys, such as the Demographic and Health Survey and the Multiple Indicator Cluster Survey, usually have large enough sample sizes to allow measurements of mortality in children under five years of age. Seven PMI focus countries have had at least two nationwide surveys that measured mortality in children under the age of five. These surveys reported reductions in mortality rates ranging from 23 to 36 percent (see Figure 1). In Tanzania, where a third data point is available from a 2010 nationwide survey, under-five mortality fell an additional 11 percent from the 2007 level. Similar reductions in other measures of malaria burden, such as the prevalence of malaria infections and severe anemia in young children, are also being documented. This progress in malaria control represents the cumulative effect of malaria funding and control efforts by PMI; targeted funding from the USG prior to PMI; national governments; the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); World Bank; and other donors. Although it is not possible to measure malaria-related deaths in such surveys directly, and multiple factors may be influencing the decline in underfive mortality rates, strong and growing evidence suggests that malaria prevention and treatment are playing a major role in these unprecedented reductions in malaria burden. This dramatic reduction in malaria burden was a major

factor in WHO's decision to modify its treatment policies. WHO now recommends that children should no longer be treated presumptively for malaria, but instead, that all suspected malaria illnesses be diagnosed with laboratory tests before treatment.

The country examples described below are characteristic of what is being seen in all seven PMI countries that have mortality data:

- In **Tanzania**, all-cause, under-five mortality fell by 28 percent between 2005 and 2010. Over the same time period, household ownership of at least one ITN increased from 23 to 64 percent, and ITN use among children under five years of age and pregnant women increased from 16 percent (both groups) to 64 percent and 57 percent, respectively. Nationwide prevalence of severe anemia in children six months to five years of age also fell by 50 percent between 2005 and 2010. In addition, malaria control has been extremely successful on the island of Zanzibar; less than 2 percent of patients at the 90 health facility surveillance sites that make up Zanzibar's malaria epidemic early-detection system now have blood smears positive for malaria parasites. The USG supported malaria control in Tanzania between 1999 and 2005, including \$2 million in FY 2005. For the period FY 2006–2010, a total of \$163.2 million in PMI funding was provided.
- In Senegal, a 30 percent reduction in all-cause mortality in children under five was documented between 2005 and 2008. Although several factors

may be involved, it is highly likely that this dramatic reduction is due, at least in part, to rapid increases in the coverage of malaria interventions. Household ownership of one or more ITNs increased from 36 percent in 2006 to 60 percent in 2008. After the 2009 national ITN distribution to children under age five, a post-campaign survey found household ITN ownership had increased to 82 percent. The proportion of pregnant women who received two or more doses of IPTp rose from 12 to 52 percent between 2005 and 2008. In late 2007, Senegal introduced rapid diagnostic tests (RDTs) for malaria in all of its health facilities, and in 2008, 73 percent of all suspected malaria cases were tested. Although no national-level baseline data are available for comparison, less than 6 percent of children under age five had malaria parasites in the 2008 nationwide survey, a level much lower than the 20 to 60 percent levels seen in longitudinal studies in Senegal.<sup>6</sup> The USG has supported malaria control in Senegal since 1999, including \$2.2 million in FY 2006. For the period FY 2007–2010, PMI provided \$75 million in funding.

#### PMI and the Global Health Initiative

Under the GHI, PMI has expanded work with partners, integrating malaria with maternal and child health activities, and strengthening health systems.

Partnerships for Malaria Control: The success of PMI is closely linked to the efforts of our many partners. In keeping with the principles of the GHI, PMI coordinates its activities with a wide range of organizations, including NMCPs; multilateral and bilateral institutions, such as WHO, UNICEF, World Bank, Global Fund, and the United Kingdom's Department for International Development (DfID); private foundations, such as the Bill & Melinda Gates and Clinton Foundations; and numerous nongovernmental organizations (NGOs) and faith-based organizations that have strong bases of operation in underserved rural areas where the burden of malaria is greatest. To date, PMI has supported more than 215 nonprofit organizations, nearly one-third of which are faith-based.

During the past four years, PMI, the ExxonMobil
Foundation, Malaria No More, and many other
partners contributed funding to the Roll Back Malaria
Harmonization Working Group to improve the
quality of Global Fund malaria proposals from African

countries. As a result, the success rate of malaria proposals that received technical support from the Working Group more than doubled. In Round 10, 87 percent of the 15 country proposals the Harmonization Working Group assisted with were successful.

- In 2010, DfID channeled £7 million (about \$10.5 million) in emergency commodity funding through PMI in Zambia by means of a memorandum of understanding with the U.S. Agency for International Development (USAID). The funding allows the NMCP and PMI to reduce stockouts of ITNs, RDTs, ACTs, and other malaria medicines.
- In Angola, the ExxonMobil Foundation continued its direct funding to USAID/Angola in support of PMI objectives—a total of \$4 million over the past five years.
- Because delays in procurements may lead to stockouts of critical commodities, such as antimalarial drugs and ITNs, PMI has established a Central Emergency Procurement Fund to help alleviate shortages at the national level. During 2010, PMI assisted six countries in filling emergency gaps in essential malaria commodities—gaps caused by changes in country needs, fluctuations in funding and timing of procurements from external partners, and other unforeseen circumstances. Through its Central Emergency Procurement Fund, PMI purchased more than \$8 million of malaria commodities,



A woman attends to her child who is being treated for severe malaria in a hospital in **Angola**. PMI works with NCMPs to encourage caregivers to seek medical attention promptly for children with fever, so that uncomplicated malaria does not progress to severe malaria, a life-threatening illness.

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<sup>&</sup>lt;sup>6</sup> Smith, T., et al. 2006. An epidemiologic model of the incidence of acute illness in *Plasmodium falciparum* malaria. *American Journal of Tropical Medicine and Hygiene*, 75 (2, Suppl): 56–62.



In **Zambia**, pregnant women wait at a clinic for antenatal care. Malaria prevention measures are some of the most equitable child survival interventions. UNICEF's report, *Progress for Children: Achieving the MDGs with Equity* (September 2010), states that in most countries ITN ownership and IPTp use tend to be equitable—poorer, rural households show coverage rates similar to those for richer, urban households.

including more than 1 million long-lasting ITNs and 5.3 million ACT treatments. PMI's responsiveness and flexibility in its commodity procurement and management systems minimized or prevented dangerous stockouts, saving countless lives.

#### Integration with Maternal and Child Health

**Programs:** Malaria prevention and control are a fundamental part of comprehensive maternal and child health services in Africa and contribute to the capacity of ministries of health to deliver high-quality services. ITNs procured by PMI are distributed primarily through antenatal and child health clinics or integrated health campaigns that include other interventions, such as vitamin A supplementation and vaccinations. This approach helps attract increasing numbers of women to these facilities and campaigns. PMI also funds focused antenatal care programs that provide a comprehensive package of services for pregnant women, including IPTp, during their regular antenatal clinic visits.

Integrated Community Health Programs: One of the greatest barriers to rapid, effective treatment of malaria in Africa is lack of access to health facilities for people living in rural areas. In response to this problem, many countries have begun to introduce and scale up integrated community case management (iCCM), which provides health care to children in hard-to-reach communities using trained, supervised community workers. PMI has played a leading role in expanding this program to

cover the major causes of fever in children under five in Africa—pneumonia, malaria, and diarrhea. In FY 2010, PMI provided funds to iCCM programs in 14 focus countries. **Ethiopia**, **Madagascar**, **Malawi**, **Rwanda**, and **Senegal** have moved quickly to implement nationwide or large-scale iCCM programs, while many of the remaining focus countries are piloting iCCM in more circumscribed areas, with plans to expand in the coming years.

**Building Capacity of National Health Systems: PMI** resources and activities help strengthen the overall capacity of health systems, both indirectly and directly. By reducing the burden of malaria in highly endemic countries, where malaria typically accounts for 30 to 40 percent of outpatient visits and hospital admissions, PMI's contributions free up critical resources and enable overstretched health workers to concentrate on controlling other childhood illnesses, such as diarrhea and pneumonia. Ministries of health and NMCPs must be able to provide both leadership and the technical and managerial skills to plan, implement, evaluate, and adjust, as necessary, their malaria control efforts. PMI is helping NMCP staff gain expertise in a variety of areas, including entomology, epidemiology, monitoring and evaluation, laboratory diagnosis, supply chain management, behavior change communication, and financial management. In 2010, PMI efforts to strengthen health systems included:

- Providing funds for strengthening supply chain management systems across all PMI countries. In almost all of these countries, PMI has been able to complement investments by the President's Emergency Plan for AIDS Relief (PEPFAR) and other USG programs.
- Funding to train more than 36,000 health care workers in case management with ACTs, 17,000 in malaria laboratory diagnostics, and 14,000 in IPTp and focused antenatal care.
- Collaborating with NMCPs and other partners, such as PEPFAR and WHO, to strengthen laboratory diagnosis of malaria and improve the overall quality of health care.

Building a cadre of ministry of health staff with technical skills in the collection, analysis, and interpretation of data for decision-making, epidemiologic investigations, and operational research in **Ethiopia**, **Kenya**, **Mozambique**, **Nigeria**, and **Tanzania** through support to the Centers for Disease Control and Prevention's (CDC's) Field Epidemiology and Laboratory Training Program.

#### **Malaria Research**

The USG is committed to reducing the global burden of malaria by supporting research through a coordinated and collaborative approach that includes operational research to answer questions relevant to program implementation, as well as more basic research into new and improved malaria prevention and treatment measures. USG malaria research involves the National Institutes of Health, CDC, Walter Reed Army Institute of Research, and USAID, all of which work with a wide range of partners including research organizations, universities, private companies, and NGOs. Examples of USG-funded malaria research activities include the following:

- A trial of iCCM in which community health workers provided with RDTs for malaria and counters for measuring respiratory rates for detection of pneumonia reduced the use of ACTs for treatment from nearly 100 percent of fever cases to just 28 percent (i.e., those children who had a positive diagnostic test) and increased appropriate antibiotic treatment of pneumonia from 13 to 68 percent;
- Establishment of 10 International Centers of Excellence for Malaria Research in Africa, Asia, and Latin America to generate evidence-based strategies to support malaria prevention and treatment; and
- Development and licensure of a new dispersible ACT formulation, which simplifies administration to young children, through funding to the Medicines for Malaria Venture.

#### **Challenges**

The reduction in malaria burden already being seen in African countries strongly suggests that malaria can be controlled and removed as the major public health problem on the continent. In spite of this progress, however, the global malaria partnership must remain vigilant. Weak national health infrastructures hamper malaria and other disease-control programs and threaten the sustainability of these efforts. Continuing challenges to progress can be expected, such as the examples described below.

#### Antimalarial Drug and Insecticide Resistance:

Resistance to artemisinin drugs has not yet been documented in sub-Saharan Africa, but if artemisininresistant malaria parasites were imported to Africa from Southeast Asia—as has occurred in the past with chloroquine resistance—it would represent a major setback for malaria control efforts on the continent.

Resistance of the mosquito vector to the pyrethroid family of insecticides, which are widely used in IRS and are the only recommended insecticides for ITNs, is already being seen at multiple sites in Africa. PMI supports NMCPs in the routine monitoring of both antimalarial drug and insecticide resistance. Additionally, PMI is considering approaches, such as rotation of insecticides for IRS, to delay development of further resistance to the pyrethroids and prolong their effectiveness on ITNs.

Antimalarial Drug Loss and Diversion: In several PMI countries, ACTs that were purchased by the USG and intended for public sector use have been stolen and subsequently found in street markets in Nigeria, Cameroon, and Benin. This diversion of ACTs appears to be well organized and also involves ACTs financed by other donors. The USG is taking aggressive steps to combat thefts and diversion of antimalarial medicines. As a matter of practice, PMI works through host-country governments to build local capacity, and will first work with host governments and partners to establish tighter controls—with a systematic oversight and review system. When clear evidence of theft, corruption, or fraud exists, the USG takes strong action to safeguard PMI-funded commodities and their intended recipients. This action includes shifting storage and transportation of PMIfunded commodities to a parallel, nongovernmental system as a temporary solution until national systems are sufficiently strong to manage commodities on their own.

#### Transient Upswings in Reported Cases of Malaria:

During the past year, two countries, where considerable progress in control has already been achieved, reported an upswing in malaria cases in some areas. In Rwanda, for example, a transient increase in the number of reported, confirmed malaria cases occurred during 2009. This increase was followed in 2010 by a reduction in cases to previous levels after a mass distribution of long-lasting ITNs. Such problems highlight the fragility of progress in malaria control and the importance of strengthening routine surveillance and epidemic response.

Together with its partners, PMI is tackling these challenges. With increased funding from the Lantos-Hyde Act, the USG has seized the opportunity to expand malaria prevention and treatment across the African continent, and we expect to see further advances in the fight against malaria in the coming years. For more information about PMI and to access the full annual report, please visit: http://www.pmi.gov.

### **Background Information**

#### PMI and the Global Health Initiative

Malaria prevention and control are major national security and foreign assistance objectives of the USG. In May 2009, President Barack Obama unveiled the Global Health Initiative (GHI), a six-year, comprehensive effort to reduce the burden of disease and promote healthy communities and families around the world. Through the GHI, the United States will help partner countries improve health outcomes, with a particular focus on improving the health of women, newborns, and children.

PMI is a core component of the GHI. As part of the USG Malaria Strategy 2009–2014, an expanded PMI strategy has been developed to achieve Africa-wide impact, thereby removing malaria as a major public health problem and promoting economic growth and development throughout the region. Since its launch in 2005, PMI has reinforced principles that are part of the GHI, including:

- Focus on women, girls, and gender equality
- Encourage country ownership and invest in country-led plans
- Build sustainability through health systems strengthening
- Strengthen and leverage key multilateral organizations, global health partnerships, and private sector engagement
- Increase impact through strategic coordination and integration
- Improve metrics, monitoring, and evaluation
- Promote research and innovation

#### **PMI Structure**

PMI is an interagency initiative led by USAID and implemented together with the Centers for Disease Control and Prevention of the Department of Health and Human Services (HHS). It is overseen by the U.S. Global Malaria Coordinator, who is advised by an Interagency Steering Group made up of representatives of USAID, CDC/HHS, Department of State, Department of Defense, National Security Council, and Office of Management and Budget.

#### **PMI Country Selection**

The 15 original focus countries were selected and approved by the Coordinator and the Interagency Steering Group using the following criteria:

- High malaria disease burden
- National malaria control policies consistent with the internationally accepted standards of WHO
- Capacity to implement such policies
- Willingness to partner with the United States to fight malaria
- Involvement of other international donors and partners in national malaria control efforts

Passage of the Lantos-Hyde Act of 2008 authorized an extension of PMI funding for five additional years (FY 2009–2013). With the launch of the GHI and a congressional authorization of extended funding, PMI's goal was expanded to achieve Africawide impact by halving the burden of malaria in 70 percent of at-risk populations in sub-Saharan Africa, i.e., approximately 450 million residents. This allowed PMI to expand into DRC, Nigeria, and the Greater Mekong Sub-region.

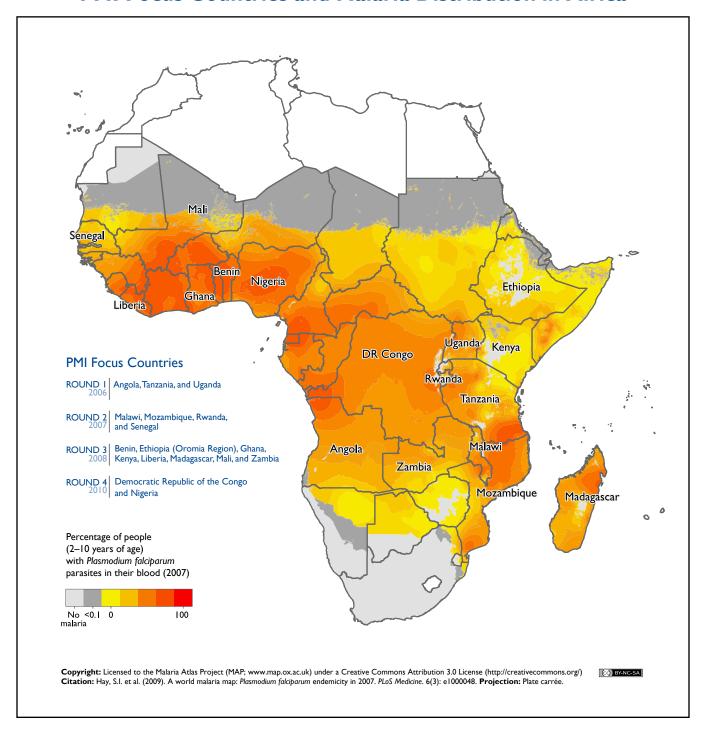
#### **PMI** Approach

PMI is organized around four operational principles based on lessons learned from more than 50 years of USG experience in fighting malaria, together with experience gained from implementation of PEPFAR, which began in 2003. The PMI approach involves:

- Using a comprehensive, integrated package of proven prevention and treatment interventions
- Strengthening health systems and integrated maternal and child health services
- Strengthening NMCPs and building capacity for country ownership of malaria control
- Coordinating closely with international and in-country partners

PMI works within the overall strategy and plan of the host country's NMCP, and planning and implementation of PMI activities are coordinated closely with each ministry of health.

#### **PMI** Focus Countries and Malaria Distribution in Africa



### U.S. Agency for International Development

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