

Country Profile | President's Malaria Initiative (PMI)

RWANDA

April 2011



At a Glance: Rwanda

Population (2011): 11.4 million¹

Population at risk of malaria:
100%²

Estimated annual malaria
deaths/100,000 population (2008):
15³

Under-five mortality rate (2008):
103/1,000 live births, or
approximately 1 in 9 children die
before their fifth birthday⁴

¹ US Census Bureau, International Data Base 2011

² PMI Malaria Operational Plan 2011

³ WHO World Health Statistics 2011

⁴ Demographic and Health Survey 2008

Background

During the last three to four years, Rwanda has made significant progress in scaling up malaria control interventions. Ministry of Health statistics show that malaria prevalence has declined 60 percent from 2005 to 2010, although an upswing in cases was seen in 2009, most likely due to a decline in insecticide-treated mosquito net coverage.

The President's Malaria Initiative (PMI)

Rwanda is one of 17 focus countries benefiting from the President's Malaria Initiative (PMI), which is led by the U.S. Agency for International Development and implemented together with the Centers for Disease Control and Prevention. PMI was launched in 2005 as a five-year (fiscal year [FY] 2006–2010), \$1.265 billion expansion of U.S. Government resources to reduce the burden of malaria and help relieve poverty on the African continent. The 2008 Lantos-Hyde Act authorized an extension of PMI funding through FY 2013. With congressional authorization and the subsequent launch of the U.S. Government's Global Health Initiative, PMI's goal was expanded to achieve Africa-wide impact by halving the burden of malaria in 70 percent of the at-risk populations on the continent (i.e., approximately 450 million residents), thereby removing malaria as a major public health problem and promoting development throughout the African region.

To reach its goal, PMI works with national malaria control programs (NMCPs) and coordinates its activities with national and international partners, including the Roll Back Malaria Partnership; The Global Fund to Fight AIDS, Tuberculosis and Malaria; the World Health Organization; the World Bank; numerous nongovernmental organizations, including faith-based and community groups; and the private sector.

Key Interventions

In line with Rwanda's national malaria control strategy, PMI supports three key interventions to prevent and treat malaria in Rwanda. Intermittent preventive treatment for pregnant women was discontinued in 2008 due to the decline in maternal transmission and concern about sulfadoxine-pyrimethamine resistance.

- **Insecticide-treated mosquito nets (ITNs):** Sleeping under a long-lasting ITN provides protection from malaria-carrying mosquitoes. The nets are nontoxic to humans but can repel and kill mosquitoes for up to three years. PMI is increasing behavior change activities at the national and community levels to promote correct and consistent net use. Together with contributions from other donors, these activities are expected to bring household ownership of two or more nets to more than 85 percent nationwide by the end of 2012. PMI is also assisting the NMCP to assess the durability and longevity of long-lasting ITNs to guide replacement strategies.

- **Indoor residual spraying (IRS):** IRS involves spraying of the inside walls of houses with insecticides so that mosquitoes are killed when they land on sprayed walls, thereby reducing malaria transmission. PMI has supported six rounds of IRS in Rwanda (including biannual rounds in 2009 and 2010). With FY 2011 funding, PMI plans to support another round of spraying and will continue to support routine entomologic surveillance. PMI will also help the Malaria Unit develop an integrated strategy to control disease vectors and transition to greater local ownership and responsibility for IRS.
- **Diagnosis and treatment:** Effective case management of malaria depends on early, accurate diagnosis with microscopy or rapid diagnostic tests (RDTs) and prompt treatment with an effective drug. Artemisinin-based combination therapies (ACTs) are the recommended first-line treatment for uncomplicated *Plasmodium falciparum* malaria in most malaria-affected regions of Africa. ACTs are extremely effective against malaria parasites and have few or no side effects. In December 2009, the Ministry of Health directed that all malaria cases require laboratory confirmation by either microscopy or RDT; laboratory confirmation averaged 93 percent in 2010. With FY 2011 funding, PMI will continue to strengthen effective case management of malaria at both health facilities and the household/community level through scale-up of integrated community case management by community health workers and support for private sector distribution of ACTs. PMI will also procure RDTs and support the nationwide implementation of rapid diagnostic testing for community case management and in the future the private sector.

Progress to Date

The table below shows key results from the 2005 and 2008 Demographic and Health Surveys (DHS), which provide nationally representative, household-level data on the health status of the population and on malaria indicators.

Rwanda Malaria Indicators	PMI Baseline (DHS 2005)	DHS 2008
All-cause mortality rate in children under five	152/1,000	103/1,000
Proportion of households with at least one ITN	15%	57%
Proportion of children under five years old who slept under an ITN the previous night	13%	56%
Proportion of pregnant women who slept under an ITN the previous night	17%	60%

Rwanda is in its fifth year as a PMI focus country. With support from PMI and its partners, malaria control interventions are being scaled up, and critical commodities are being distributed to vulnerable populations.

PMI Contributions	2007	2008	2009	2010	Cumulative
IRS: Houses sprayed ¹	159,063	189,756	295,174	303,659	
IRS: Residents protected ¹	720,764	885,957	1,329,340	1,365,949	
ITNs procured		550,000	912,400	100,000	1,562,400
ITNs distributed			500,000	962,400	1,462,400
RDTs procured				200,010	200,010
ACTs procured	714,240				714,240
ACTs distributed		714,240			714,240
ACTs procured by other donors and distributed with PMI support			396,625	282,494	679,119
Health workers trained in ACT use ²	5,127	8,565	7,672	7,180	

¹ A cumulative count of the number of houses sprayed and residents protected is not provided since some areas have been sprayed on more than one occasion.

² A cumulative count of individual health workers trained is not provided since some health workers have been trained on more than one occasion.

Impact

According to two national household surveys in Rwanda, all-cause mortality among children under five years of age declined by 32 percent between 2005 and 2008. Over the same time period, malaria transmission fell sharply, most likely associated with targeted long-lasting ITN distribution (use among children under five rose from 13 to 57 percent) and the widespread introduction of ACTs. During 2009, an apparent increase in the number of confirmed malaria cases was reported by the routine health information system. The cause of this increase is unclear, but it may have been due to a decline in ITN coverage rates. Reported cases of malaria are now declining once again, and initial results for 2010 show a marked reduction in confirmed malaria cases.

PMI Funding

	FY 2006 Jump start funds	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Budget (in millions)	\$1.5	\$20.0	\$16.8	\$16.3	\$18.0	\$18.9

For details on FY 2011 PMI activities in Rwanda, please see the **Rwanda Malaria Operational Plan:** http://pmi.gov/countries/mops/fy11/rwanda_mop-fy11.pdf.

