Country Profile | President's Malaria Initiative (PMI)

ETHIOPIA

April 2011

At a Glance: Ethiopia

Population (2011): 90.9 million[1]

Population at risk of malaria (2009): 67%[2]

Estimated annual malaria deaths/100,000 population (2008): 10[3]

Under-five mortality rate (2005): 123/1,000 live births, or approximately 1 in 8 children die before their fifth birthday[4]

[1] US Census Bureau, International Data Base 2011

[2] WHO World Malaria Report 2010

[3] WHO World Health Statistics 2011

[4] Demographic and Health Survey 2005

Background

Malaria is a leading health problem in Ethiopia. About two-thirds of the population lives in areas where malaria is transmitted; there is little risk of malaria above 2,000 meters. Ethiopia's malaria situation differs from other PMI countries in a number of ways. While the overall risk of malaria is quite low, malaria transmission in Ethiopia is characterized by frequent and often large-scale epidemics, which tend to occur every five to eight years. Because the transmission pattern of the disease is unstable, immunity is low, so all members of the population are at risk of severe disease – not just pregnant women and children. Although the majority of malaria infections are due to the malaria parasite *Plasmodium falciparum*, a second species, *P. vivax,* is found in up to 40 percent of all cases. Given these factors, surveillance of cases and information management are critical in the country. Between 2004 and 2009, PMI support for malaria commodities and operations concentrated primarily on Oromia Regional State – the largest, most malarious and most underserved of Ethiopia's 11 regional states. With increased funding, however, PMI's support is now expanding to fill commodity gaps and support planning, training and use of strategic information at the national level.

The President's Malaria Initiative (PMI)

Ethiopia 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 (NGOs), including faith-based and community groups; and the private sector.

Key Interventions

In line with Ethiopia's national malaria control strategy, PMI supports three major malaria prevention and treatment measures. Intermittent preventive treatment for pregnant women is not recommended in Ethiopia because of the overall low incidence of malaria infections.

- **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. Between 2005 and 2009, approximately 20 million long-lasting ITNs were distributed nationwide, with support from the Global Fund, including 6.5 million mosquito nets in Oromia Regional State alone. In spite of this effort, long-lasting ITN ownership was just 65 percent in areas targeted for distribution (Malaria Indicator Survey [MIS] 2007). PMI is continuing to support the distribution of long-lasting ITNs through Oromia Regional Health Bureau channels and through networks of community- and faith-based organizations and NGOs. Distribution of mosquito nets is complemented by comprehensive behavior change communication efforts and targeted hang-up campaigns to ensure nets are being used properly by the population. PMI also supports national net coverage efforts by helping to quantify mosquito net needs and gaps at the district and community levels.

- **Indoor residual spraying (IRS):** IRS involves spraying the inside walls of houses with insecticides. When mosquitoes land on the sprayed walls, they are killed, thus reducing malaria transmission. IRS (primarily with DDT) has been an important component of malaria control efforts in Ethiopia for many years. PMI support for insecticide-resistance monitoring from 2008 to 2010 has now demonstrated widespread resistance to DDT, which has led the Government of Ethiopia to explore alternative insecticides for its next round of IRS. With FY 2011 funding, PMI will continue to support Ethiopia's IRS program through improved targeting and enumeration of areas for IRS operations, procurement, distribution and storage of IRS commodities, training and supervision for IRS operations, appropriate pesticide management, entomological monitoring and environmental compliance.

- **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 *P. falciparum* malaria in most malaria-affected regions of Africa. They are extremely effective against malaria parasites and have few or no side effects. The multiple species of malaria parasites present additional challenges for case management in Ethiopia. PMI is supporting a review of Ethiopia's national malaria diagnosis and treatment guidelines to strengthen capacity to conduct quality-assured diagnostic testing for malaria. PMI support includes providing supplies, training, supervision and implementation of quality assurance/quality control systems. PMI is also strengthening the pharmaceutical management system for malaria treatments. In conjunction with other communication efforts, PMI is supporting Oromia's expanding system of community-based health extension workers, who promote early care-seeking behavior and adherence to antimalarial drug treatment.

Progress to Date

The table below shows key results from a Demographic and Health Survey (DHS) and an MIS. These surveys provide nationally representative, household-level data on the health status of the population and on malaria indicators and serve as the PMI baseline. Another nationwide household health survey will be conducted in 2011.

Ethiopia Malaria Indicators	PMI Baseline
All-cause under-five mortality rate	123/1,000 (DHS 2005, national)
Proportion of households with at least one ITN	41% (MIS 2007, Oromia)
Proportion of children under five years old who slept under an ITN the previous night	24% (MIS 2007, Oromia)
Proportion of pregnant women who slept under an ITN the previous night	29% (MIS 2007, Oromia)
Proportion of women who received two or more doses of IPTp during their last pregnancy in the last two years	Not part of NMCP strategy

Ethiopia is in its fourth 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]	778,000	1,793,248	1,935,402	646,870	
IRS: Residents protected[1]	3,890,000	5,921,906	6,484,297	2,064,389	
ITNs procured	102,145	22,284	1,559,500	1,845,000	3,528,929
ITNs distributed	102,145	22,284	559,500	1,000,000	1,683,929
ACTs procured		600,000	1,081,000	2,268,000	3,949,000
ACTs distributed			1,681,000	648,000	2,329,000
RDTs procured			1,680,000	1,560,000	3,240,000
RDTs distributed			820,000	2,420,000	3,240,000
Health workers trained in ACT use[2]		2,786		1,740	

[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] It is not possible to provide a cumulative figure of health workers trained since some workers have been trained more than once.

PMI Funding

	FY 2007 Jump start funds	FY 2008	FY 2009	FY 2010	FY 2011
Budget (in millions)	$6.7	$19.8	$19.7	$31.0	$40.9

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

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