

LIBERIA

April 2011



At a Glance: Liberia

Population (2011): 3.8 million¹

Population at risk of malaria (2009): 100%²

Estimated annual malaria deaths/100,000 population (2008): 98³

Under-five mortality rate (2009): 114/1,000 live births, or approximately 1 in 9 children die before their fifth birthday⁴

¹US Census Bureau, International Data Base 2011

²WHO World Malaria Report 2010

³WHO World Health Statistics 2011

⁴Malaria Indicator Survey 2009

Background

Until 2003, Liberia experienced intermittent civil war for more than a decade, and almost all health services were provided by humanitarian assistance groups. With the return to political stability, the Government of Liberia has increasingly taken responsibility for the provision of health services. Malaria is endemic throughout the country and transmission occurs year-round, with a peak in September to October. According to a recent health facility survey, malaria accounts for about 35 percent of outpatient department attendance and 33 percent of inpatient deaths.

The President's Malaria Initiative (PMI)

Liberia 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 (WHO); the World Bank; numerous nongovernmental organizations, including faith-based and community groups; and the private sector.

Key Interventions

In line with Liberia's national malaria control strategy, PMI supports four major malaria prevention and treatment measures.

- **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. Approximately 2.6 million ITNs (from a variety of donors, including PMI) were distributed in Liberia between 2005 and 2010 through antenatal clinics, door-to-door campaigns and other approaches. These efforts have improved ITN ownership on the national level: Nearly

50 percent of all households own an ITN (Malaria Indicator Survey [MIS] 2009), compared with 30 percent only a few years ago (Demographic and Health Survey [DHS] 2007). In FY 2011, PMI's planned activities include the procurement and distribution of 300,000 additional ITNs for distribution through clinics and community-based programs. PMI will continue to assist with strengthening the management of the national ITN program, including improved quantification of needs, logistics, storage, distribution, training and associated behavior change communication efforts.

- **Indoor residual spraying (IRS):** IRS involves spraying the inside walls of houses with insecticides. When mosquitoes land on the sprayed walls, they pick up a lethal dose of insecticide, thus reducing malaria transmission. PMI support for IRS during 2009 protected around 160,000 people in Margibi and Grand Bassa County. In 2010, PMI-supported IRS activities protected more than 420,000 residents.
- **Intermittent preventive treatment for pregnant women (IPTp):** IPTp is a highly effective means of reducing the serious consequences of malaria in both the pregnant woman and her unborn child, which include maternal anemia and low birth weight babies. It consists of the administration of at least two doses of the antimalarial drug sulfadoxine-pyrimethamine (SP), which is given at least one month apart during the second and third trimesters of pregnancy. In Liberia, most SP needs for IPTp are being met by the national government and other donors. To date, PMI has updated and printed training manuals that are being used for in-service training of health workers. In collaboration with the NMCP, PMI supported training on malaria in pregnancy and case management for 61 faculty and clinical instructors, and training of about 400 certified and traditional midwives. The most recent nationwide survey showed the proportion of pregnant women receiving the recommended two IPTp treatments during their pregnancy increased from 12 percent (DHS 2007) to 45 percent (MIS 2009).
- **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. They are extremely effective against malaria parasites and have few or no side effects. PMI is supporting the provision of ACTs through the private sector to increase access to effective treatment and training of private sector dispensers. Laboratory diagnostic capacity in Liberia is very weak. Most health facilities use RDTs due to their limited capacity to carry out microscopic diagnosis. During the past year, PMI supported WHO accreditation for two senior laboratory technicians, as well as refresher training in microscopy and supervision for laboratory technicians and their supervisors. With FY 2011 funding, PMI will support the continued development of the National Public Health Reference Laboratory, training in microscopy and use of RDTs in both public and private facilities as well as procurement of RDTs and other diagnostic supplies.

Progress to Date

The table below shows key results from a Malaria Indicator Survey (MIS) conducted in Liberia, which provides nationally representative, household-level data for malaria indicators.

Liberia Malaria Indicators	PMI Baseline (MIS 2009)
All-cause under-five mortality rate	114/1,000
Proportion of households with at least one ITN	47%
Proportion of children under five years old who slept under an ITN the previous night	26%
Proportion of pregnant women who slept under an ITN the previous night	33%
Proportion of women who received two or more doses of IPTp during their last pregnancy in the last two years	45%

Liberia 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 vital commodities are being distributed to vulnerable populations.

PMI Contributions	2007	2008	2009	2010	Cumulative
IRS: Houses sprayed ¹			20,400	48,375	
IRS: Residents protected ¹			163,149	420,530	
ITNs procured	197,000		430,000	480,000	1,107,000
ITNs distributed		184,000	430,000	480,000	1,094,000
IPTp treatments procured			78,666	85,333	163,999
IPTp treatments distributed			78,666		78,666
ACTs procured	496,000		1,303,175	1,631,625	3,430,800
ACTs distributed		496,000	1,303,175	1,631,625	3,430,800
RDTs procured			850,000	1,200,000	2,050,000
RDTs distributed			850,000	1,200,000	2,050,000
Health workers trained in IPTp ²		417	750	535	
Health workers trained in ACT use ²		595	746	1,008	
Health workers trained in diagnostics ²			22	906	

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.

PMI Funding

	FY 2007 Jump start funds	FY 2008	FY 2009	FY 2010	FY 2011
Budget (in millions)	\$2.5	\$12.4	\$11.8	\$18.0	\$13.2

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



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