



**USAID**  
FROM THE AMERICAN PEOPLE

**ASIA**

# INFECTIOUS DISEASE PREVENTION AND CONTROL IN BURMA: MALARIA AND TB

APRIL 2010



*At least 1 million people are thought to contract malaria in Burma each year. The country's population is 50 million.*

## **MALARIA**

**OVERVIEW** Malaria is one of the leading causes of death among children under the age of five in Burma. Although this is typical for Africa, it is not for Southeast Asia. While exact statistics are unknown, at least 1 million people are thought to contract malaria in Burma each year. The 2009 World Malaria Report (WMR) states that Burma, with a population of 50 million, has 17 percent of all malaria cases in Southeast Asia, the highest percentage in the region. WMR states there were 400,000 confirmed malaria cases in Burma and about 1,100 deaths due to malaria in 2008.

Burma's guidelines call for the use of the WHO-recommended artemisinin-based combination therapy (ACT), the best first-line medicinal regimen against multi-drug resistant (MDR) malaria. In practice, anti-malarial drug use is poorly monitored and poor quality. Non-ACT regimens are widely available. For example one of the ACTs, coartem (artemether-lumefantrine combination), is used because of its lower price, although its field effectiveness has not been verified in Burma. Another ACT, artesunate-amodiaquine combination, is being supplied by the Chinese private sector, again without documented efficacy, and despite that this combination therapy is too weak for the malaria strains in the Indochina peninsula.

The Three-Disease Fund (3DF), managed by the UN, provides insecticide-treated nets to prevent malaria. While it aims to fill the gap that occurred when the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) pulled out of Burma in 2005, it has not addressed the problems of diagnostics or treatment.

**ACTIVITY DESCRIPTION** With \$750,000 USAID currently supports WHO and other Mekong Malaria Programme (MMP) partners to implement the following activities:

- **Monitoring drug resistance:** Strengthening therapeutic efficacy surveillance sites to monitor for the effectiveness of the national first-line anti-malarial therapy. The emergence of resistance to the current artemisinin medicine on the Thai-Cambodian border and evidence of reduced sensitivity of ACT efficacy on the Burmese-Thai and Burmese-China borders raises fears of artemisinin resistance spreading globally as happened with chloroquine and mefloquine.
- **Increasing ACT accessibility:** Providing supplemental funds for the purchase of ACTs to ensure adequate supplies. In addition, there is a need for technical assistance in pharmaceutical supply management to ensure proper inventory systems and delivery of commodities in Burma. This is particularly important with the large procurements planned with the re-entry of the Global Fund.

**Contact: Dr. Aye Aye Thwin**

U.S. Agency for International Development  
Regional Development Mission for Asia  
Athenee Tower, 25/F  
63 Wireless Road  
Bangkok 10330 Thailand  
Office: (66-2) 257-3248  
Fax: (66-2) 257-3099  
Email: [aathwin@usaid.gov](mailto:aathwin@usaid.gov)  
Web: <http://asia.usaid.gov>



- **Drug Quality Surveillance:** The presence of fake and/or substandard anti-malarial drugs is common in Burma. Funds would be used to strengthen the Myanmar Food and Drug Administration's capability in drug quality assessments and for surveillance of counterfeit drugs.
- **Strengthening diagnostic capacity:** In order to deter ACT failure, it is necessary to ensure that ACTs are prescribed only to people with a malaria-positive blood test. Support would be given to strengthen malaria diagnostics capabilities as well as operational research on prescribing practices and adherence to current first-line anti-malarial therapy.
- **Strengthening Malaria Control Program:** Supporting the Mekong Malaria Program to provide technical assistance to Burma in strategic information capability strengthening, monitoring and evaluation framework development and eventually improvement in malaria control strategy.

## TUBERCULOSIS

**OVERVIEW** Burma has the 19th highest incidence tuberculosis (TB) cases in the world. Its incidence is 171 cases per 100,000 people a year. Despite successes in directly-observed treatment strategy (DOTS) implementation, Burma faces serious challenges. Capacity to diagnose and treat Multidrug resistant tuberculosis (MDR-TB) is very weak. With over 4.4 percent of new and 16 percent of previously treated cases resistant to first-line drugs, the country still needs more second-line drugs to treat multidrug-resistant tuberculosis (MDR-TB).

Burma has the lowest access to diagnostic services among the 22 WHO TB high-burden countries. Over 25 percent of patients with tuberculosis are treated in the private sector with a national TB program that continues to struggle to engage all care providers and ensure quality treatment in all sectors. Provision of high-quality TB services for Thai-Burma cross-border populations presents a major challenge. In many border and remote townships, the outcome of treatments is poor because patients fail to take all their medicine and there is low community involvement in TB control activities.

While the 3D Fund, Japan and Italy provide some assistance, there is still a large funding gap. The estimated cost of the TB control program is \$16 million per year, with an annual gap of over \$9.2 million. With the return of the Global Fund in 2011 there is an opportunity for continuity and to scale up the provision of second-line drugs and to strengthen the basic system with public-private sector linkages.

**ACTIVITY DESCRIPTION** With \$1.12 million in FY2009 funding, USAID supports the following TB activities in Burma:

- **Expansion of quality-assured laboratory services:** Through the two supra-national reference laboratories in the region – the Bureau of TB in Bangkok and the Tuberculosis Research Center in Chennai – Burma receives technical assistance to improve the quality of TB cultures and drug susceptibility testing of first-line anti-TB drugs and improvements in quality assurance for smear microscopy. PSI/Burma is teaching laboratory technicians to perform TB sputum microscopy services to meet international standards. Laboratories are monitored for quality assurance.
- **Strategic information to improve TB surveillance and program performance monitoring and impact:** While recording and reporting under DOTS is fairly robust within the national TB control programs, additional efforts are being made to strengthen the analysis and use of routine program and survey data to ensure timely interventions for greater impact. Through WHO, RDMA provides support to the national TB program to strengthen its TB surveillance, monitoring and evaluation.
- **Scaling up private sector services for the prevention of MDR/TB:** RDMA works through Population Services International (PSI), to develop TB communication materials that target communities and encourage screening, testing and adherence to treatments. The private Sun Quality Health clinics supported by USAID play a key role in TB advocacy, communication and social mobilization activities in Burma. Sun delivers Information Education and Communication (IEC) messages to communities as part of a comprehensive TB public awareness campaign involving all levels of media.