



PRESIDENT'S MALARIA INITIATIVE



MALARIA CONTROL IN ZANZIBAR

ZANZIBAR PROGRAM AT A GLANCE OCTOBER 2009

Introduction

The President's Malaria Initiative (PMI) represents a historic, five-year, \$1.2 billion U.S. Government effort dedicated to reducing malaria deaths by 50% in 15 priority countries. This will be achieved by expanding coverage of highly effective malaria prevention and treatment measures, including insecticide-treated mosquito nets (ITNs), intermittent preventive treatment for pregnant women (IPTp), artemisinin-based combination therapy (ACT), and indoor residual spraying (IRS) with insecticides. IRS is the organized, timely spraying of an insecticide on the inside walls of structures or dwellings.

It is designed to interrupt malaria transmission by killing adult female mosquitoes inside structures before they can transmit malaria to another person. IRS has been used for decades, helping eliminate malaria from many areas of the world, particularly where malaria vectors are indoor-resting. In all PMI priority countries, the IRS program involves a number of activities, including environmental assessments, training of spray teams, procurement of insecticide and equipment, and developing and evaluating spraying activities¹.

Country Profile

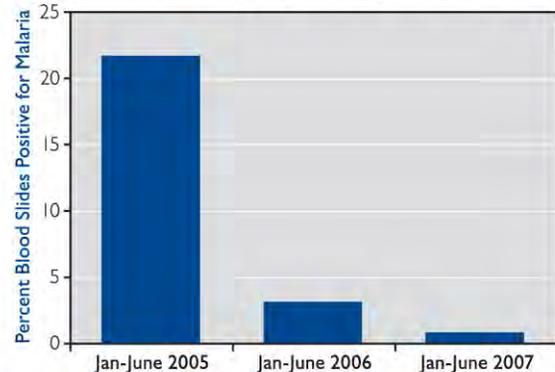
Zanzibar is a semi-autonomous part of the United Republic of Tanzania. Around one million people live in the archipelago. Although malaria has historically been one of the major causes of morbidity and mortality throughout the country, in recent years, the Zanzibar Malaria Control Programme (ZMCP) has succeeded in substantially reducing the malaria burden in Zanzibar by implementing various interventions, including ITNs, IPTp, ACTs, and IRS.

Highlights from 2008-09 Spray Campaign:

- 212,021 structures sprayed (97%)
- 1,120,381 people protected
- New or refresher training for over 500 people

Currently, Zanzibar is at a pre-elimination stage of malaria (as shown below). The IRS project, funded by the United States Agency for International Development (USAID) and PMI, has worked collaboratively with the ZMCP since 2006 to implement IRS and other malaria control and prevention activities.

Percentage of Blood Slides Positive for Malaria in Children Under Age 2, Zanzibar, 2005-2007



Implementing Vector Control Interventions

Integrating vector control interventions—such as IRS, long-lasting insecticide treated nets (LLINs), and application of larvicides—is an effective strategy for a successful malaria control and prevention program.

- RTI has assisted the ZMCP with its IRS program since 2006 with nearly 100% coverage. See table below. Spray periods are January–March and August–October.
- Through its partner Mennonite Economic Development Associates, the IRS project supported a discount voucher program for distribution of LLINs, later phased out by ZMCP in 2008.

¹ U.S. Agency for International Development Web site.

Zanzibar IRS Results		
Spray Round	Structures Sprayed/ Coverage	Population Protected
Round 1 – 2006	203,754 (96%)	1,018,156
Round 2 – 2007	196,827 (90%)	1,062,865
Round 3 – 2007	212,021 (97%)	1,120,381
Round 4 – 2008-09	212,021 (97%)	1,120,381

Encouraging Behavior Change and Improving Communication

RTI helped to strengthen and expand the Zanzibar School Malaria Programme by providing teachers, education officials, and district health officers with information and skills that enabled them to better educate students on malaria control and prevention techniques, as well as on symptoms and treatments for the disease. Organized around teacher centers in each district, 669 head teachers from primary and selected preprimary and secondary schools from 95% of all schools were trained.

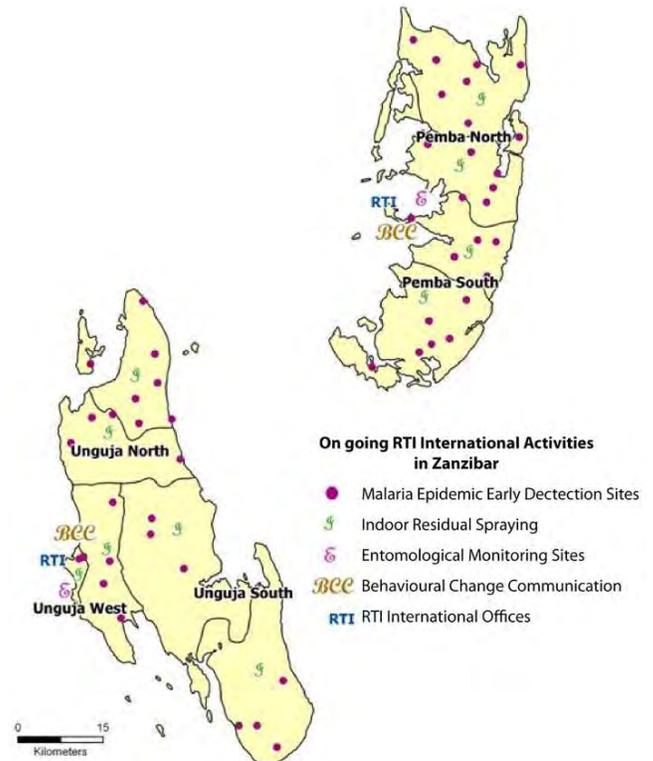
In 2009, the IRS project is implementing a Malaria Communication Plan, leading a mass media malaria campaign in collaboration with ZMCP and the ministries of Education and Communication. Using radio, television, billboards, and placards, the campaign is focusing on anti-malarial preventive and curative measures.

Preventing Outbreaks through Surveillance

In collaboration with the U.S. Centers for Disease Control and Prevention and ZMCP, the IRS project helped develop the Malaria Epidemic Early Detection System (MEEDS). MEEDS aims to detect the early stages of an epidemic, within 2 weeks of onset, by measuring weekly changes in frequency and incidence rates of new, laboratory-diagnosed malaria cases at 52 health facilities (40% of primary health care facilities). A public-private partnership with Selcom Wireless facilitates data transmission from health facilities via SMS messages on cell phones and delivery of weekly updates to ZMCP and other Ministry of Health authorities. The MEEDS network will expand to all 150 health facilities in Zanzibar.

In addition to MEEDS, RTI has expanded entomological and epidemiological sentinel surveillance of the IRS areas to establish vector distributions and densities, susceptibility, and epidemiological indicator baselines. Sentinel surveillance alerts the IRS project and government partners when conditions are ripe for an outbreak so that interventions can be created or adjusted to best fit local conditions, and thus more effectively reduce the number of biting mosquitoes.

In 2007, RTI supported the development of an entomological unit within ZMCP, which has led to routine entomological monitoring as part of ZMCP's work. In 2008, the project set up an insectary and procured ELISA equipment to expand the range of technical services ZMCP will provide. Training and use of this equipment began in 2009.



Capacity Building and Training

Efforts to build local capacity in Zanzibar for IRS activities have been ongoing in partnership with the ZMCP. Local staff is involved throughout the planning process for IRS rounds, from conducting logistical assessments to accurately estimating the required quantities of materials, human resources, and training costs for an IRS program. Each round of IRS involves new or refresher training for over 500 people.

The Malaria Control project in Mainland Tanzania and Zanzibar is a cooperative agreement led by RTI International with support from the National Institute of Medical Research, and Selcom under USAID cooperative agreement 621-A-00-07-00009-00, Jan-Dec 2009.

For more information about this project, please contact:

RTI International
 805 15th Street, N.W., Suite 601
 Washington, DC 20005
 E-mail: IRSInfo@rti.org
 Phone: +1 202.728.2080