

# Malaria Control: Overview



Malaria  
Strategy  
Group  
LATH-LSTM



## Malaria: Overview

The global burden of malaria is 350-500 million cases and at least 1 million deaths annually, with a disproportionate burden falling on children under five and pregnant women in sub Saharan Africa. We have effective tools against malaria and unprecedented political commitment and financial resources. Long lasting insecticide-treated nets (LLINs), Artemisinin Combination Therapies (ACTs), Indoor Residual Spraying (IRS) and Intermittent Preventive Treatment in Pregnancy (IPTP) have the potential to dramatically reduce the number of malaria cases and deaths. However, the danger of drug and insecticide resistance means that sound resistance management and new drugs and insecticides are needed. There is also an urgent need to scale up delivery of and access to these interventions. Ensuring equitable access and reaching vulnerable groups is also critical.

The Roll Back Malaria Partnership Global Malaria Business Plan outlines strategies to conduct rapid scale up campaigns with existing interventions in 43 sub-Saharan African countries by 2010. In the next phase, to 2015, systems strengthening interventions in countries that have achieved scale up will be put in place and scale up efforts will be extended to new countries. The experience of LATH and LSTM will enable us to support this huge scale up effort which will include resource mobilisation, advocacy, investment in research and development and operational research.

LATH and LSTM are working with Ministries of Health, donor partners, NGOs and academic partners in Africa and elsewhere to help drive efforts to effectively control malaria now and in to the future.

We are a key organisation in the USAID funded President's Malaria Initiative, supporting African countries to carry out entomological monitoring and economic evaluation of their IRS programmes.

### Key Principles

1. Capacity Development
2. Evidence Based
3. Systems Approach



## Malaria in Pregnancy

**Problem:** Malaria in pregnancy affects up to 50 million women around the world every year, resulting in an estimated 25,000 maternal deaths and 100,000 childhood deaths in sub-Saharan Africa alone. Growing resistance to the most commonly used drugs for treatment and prevention means that new replacement drugs are urgently needed. Whilst many new antimalarials are available, none have been formally evaluated in pregnancy.

**Solution:** LSTM has spearheaded the creation of a global research initiative, the Malaria in Pregnancy Consortium. The \$45 million initiative involves over 40 expert institutions worldwide, generating a new momentum of life-saving research which will provide evidence-based policy changes in the shortest possible time. In the next five years we aim to find the next two drugs for the treatment of malaria in pregnancy and a drug to replace Sulfadoxine/Pyrimethamine (SP) for intermittent preventive treatment.

[www.mip-consortium.org](http://www.mip-consortium.org)

## Strategic Planning

**Problem:** The increased flow of resources and requirements of funding agencies can pose significant management and coordination challenges to countries. One solution to this is to provide support to strategic and operational planning within country malaria control programmes to help them make the best use of resources in the short term and ensure sustainable financing in the longer term.

**Solution:** LATH facilitated the development of a comprehensive and integrated 2008 plan for the National Malaria Control Programme (NMCP) in Mozambique. The plan followed the format prescribed by the central Ministry's planning department, ensuring that it could easily be fitted into the sector's annual plan and, in turn, the overall plan for the Government. The process of developing the plan was participative, requiring substantial input from staff in the NMCP, building capacity to improve both planning and budgeting.

## Diagnosics

**Problem:** With increasing use of ACTs for malaria treatment, a laboratory based diagnosis is recommended to reduce costly over prescription. However, malaria microscopy is often poorly performed in developing countries and difficult to implement in primary health care settings.

**Solution:** In Nigeria, LATH and LSTM developed a model system for providing a package of quality assured tests including a test for malaria at primary health care level. The model developed referral and supervisory systems for monitoring these tests using hospital based laboratory staff. This model built on local capacity to ensure sustainability and local ownership of the process.

## Economic Evaluation

**Problem:** Insecticide treated nets, indoor residual spraying, and preventive treatment in pregnancy are cost effective malaria control interventions. However, there is very little evidence on the cost and effectiveness of other interventions such as larval control (larviciding).

**Solution:** LATH worked with colleagues from Tanzania and Kenya to carry out cost analysis of larviciding for malaria control in three different settings. The results showed that the cost per person protected per year (\$0.79-\$2.50) depended on human population density, programme scale and the mosquito breeding environment. Previously there was very limited cost data on larval control programmes and a widely held perception that costs were prohibitive. The results will be used by USAID to inform programming decisions under the President's Malaria Initiative.

## Developing New Drugs

**Problem:** The emergence of multidrug resistant parasites is causing a global health emergency with more people dying of malaria today compared to 20 years ago.

**Solution:** The malaria group in Liverpool were one of the first in the world to implement a new model of collaborative research and development by way of public private partnerships (PPP) in an effort to develop new affordable antimalarial drugs. In the past 10 years, one drug has been taken to registration, two more are in clinical development and a further three drugs are currently in preclinical development. This portfolio of activity is complemented by basic research into the mechanisms underpinning drug resistance and the search for novel targets.

[www.antimal.eu](http://www.antimal.eu)

## Insecticide Resistance

**Problem:** Community level malaria control is often reliant upon the use of insecticides. Yet there are only a limited number of insecticides licensed for public health use, resistance is widespread and adequate systems are not in place in disease endemic countries for taking resistance data and integrating it into programmatic policy.

**Solution:** Through product development partnerships LSTM and the Innovative Vector Control Consortium, together with a number of Northern and Southern partners, are developing new insecticides and formulations. They are producing user friendly data systems for monitoring insecticide resistance and tools for programme managers to combine resistance data with epidemiological information to use their resources most effectively. Improved data and systems will lead to evidence based and improved disease control.

[www.ivcc.com](http://www.ivcc.com)

For more information please contact a member of our team.

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