

PROJECT BRIEF

Oromia Project

Microscopy for malaria and helminth infections are carried out at school testing sites

The aim of the Oromia Project is to conduct school-based surveys of malaria and helminth infection for development of a regional risk map

COUNTRY

Ethiopia
Oromia Region

DONOR

PMI/USAID, with additional funds from KEMRI for helminth work

LENGTH OF PROJECT

Two years

PARTNERS

Federal Ministry of Health, Oromia Regional Health Bureau, Kenya Medical Research Institute, Oromia Regional Education Bureau, Ethiopian Health and Nutrition Research Institute, PMI/USAID, Ethiopian Mapping Agency, Addis Ababa University, MACEPA/PATH, Centre for National Health Development in Ethiopia

PROJECT OUTLINE

Malaria in Ethiopia is seasonal and unstable, with both *Plasmodium falciparum* and *P. vivax* endemic. Malaria epidemics occur periodically and lead to significant morbidity and mortality.

A clear understanding of the conditions in which malaria transmission takes place allows for evidence-based planning of interventions such as indoor residual spraying (IRS) and mosquito net distributions.

There is also limited current information about the distribution and burden of soil-transmitted helminths or worms (STH) and schistosome infections in Ethiopia. The data gathered by this project will allow planned interventions such as targeted mass drug administration for helminth infections in areas of high prevalence.

Twenty thousand children from 200 randomly selected primary schools across Oromia

will be tested to determine the prevalence and intensity of malaria and anaemia across the diverse transmission settings of the region. A short questionnaire will be used to record each child's use of long-lasting insecticidal nets, whether their homes have been sprayed, recent history of treatment for malaria or worms, and socio-economic indicators.

At approximately half of these schools, children will also be tested for STH and schistosomiasis.

Results of the school surveys for malaria will be linked with environmental data such as temperature, distance from collected water and height above sea level. Geostatistical modelling will be used to create a map of malaria risk for Oromia Region, which can be used as a planning tool for identification of targeted areas for IRS or distribution of long-lasting insecticidal nets.



This project has a direct impact upon initiatives to:

- ✓ Combat malaria
- ✓ Manage neglected tropical diseases
- ✓ Manage common childhood illnesses
- ✓ Provide operational research outputs
- ✓ Provide monitoring and evaluation
- ✓ Provide health support to marginalised populations

GENERAL OBJECTIVE

The general objective of the project is to develop and maintain malaria risk map for the Oromia Region in Ethiopia to allow informed regional planning for malaria control.

SPECIFIC OBJECTIVES

- To determine the baseline geographical distribution and prevalence of *P. falciparum* and *P. vivax* among school children.
- To determine prevalence and intensity of STH and schistosomiasis infections in school children.
- To monitor the trend of malaria prevalence following the increased utilisation of long-lasting insecticidal nets, the expansion of indoor residual spraying, and the improvements in access to diagnosis and treatment
- To evaluate the effectiveness of malaria control interventions using appropriate epidemiological indicators.



*Above: School children line up for testing
Opposite: A technician prepares blood samples*