



# PROJECT BRIEF

## Oromia Project

### 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

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

## PROJECT OUTLINE

**M**alaria 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. Transmission is delimited by particular environmental variables which determine the potential for development of the mosquito vector.

Developing an understanding of the conditions in which transmission is able to take place allows for evidence-based planning of interventions such as indoor residual spraying and mosquito net distributions.

There is also limited current information about the distribution and burden of soil-transmitted helminths (STH) (hookworm, *Ascaris lumbricoides* and *Trichuris trichiura*) and Schistosome infections in Ethiopia. This data will allow for planning of interventions such as targeted mass drug administration with albendazole or praziquantel in areas of high prevalence in line with World Health Organization recommendations.

Twenty thousand children from 200 randomly selected primary schools across Oromia will be included in the survey to determine the prevalence and intensity of malaria and anaemia across the diverse transmission settings of the region. At approximately half of these schools, children will also be tested for STH and schistosomiasis in addition to malaria. At all schools, a short questionnaire will be used to find out about 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.

Results of the school surveys for malaria will be linked with satellite-derived environmental data such as temperature, distance from water bodies and elevation. Geostatistical modeling 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 indoor residual spraying, or distribution of long-lasting insecticidal nets.

**malaria  
consortium**

disease control, better health

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

## 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.



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

## 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.



**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**

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