malaria consortium

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

PROJECT BRIEF Oromia Project

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

COUNTRY

Ethiopia Oromia Region

DONOR

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

LENGTH OF PROJECT

Two years (completed)

PARTNERS

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

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 have been tested to determine the prevalence and intensity of malaria and anaemia across the diverse transmission settings of the region. A short questionnaire was 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 were tested for STH and schistosomiasis.

The level of malaria and helminth infection at each school have been presented on a map to identify high-prevalence areas. This map will be used as a planning tool to allow targeting of prevention and control activities to the populations in need, including mass drug administration for helminth control, IRS or long lasting insecticidal net distributions.



This project has a direct impact upon initiatives to:

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

PURPOSE

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

AIMS & ACHIEVEMENTS

- 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 insectidal 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.

Malaria Consortium

Development House

56-64 Leonard Street, London

EC2A 4LT, United Kingdom

Above: School children line up for testing Opposite: A technician prepares stool samples for helminth testing



info@malariaconsortium.org www.malariaconsortium.org malaria consortium

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