



# High malaria prevalence in districts targeted to malaria elimination in southern Ethiopia: a community-based cross-sectional study

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## Background

- Ethiopia's ambition to eliminate malaria nationwide by 2030 is challenged by a recent rise in cases.
- This study aimed to assess the prevalence and determinants of malaria in southern Ethiopia, focusing on local information for regional and sub-regional malaria prevention efforts.

## Methods and Materials

- A community-based cross-sectional study was conducted in the two districts of the Sidama Region from February to March 2023.
- Multi-stage cluster sampling was used to include 1647 households.
- A questionnaire was used to collect data on exposure variables, and a rapid diagnostic test was used to identify malaria infection.
- A multilevel mixed-effect logistic regression model was fitted to identify predictors of malaria infection, taking into account the clustering effects of districts (ICC=0.24) and *kebeles* (ICC=0.31).

## Results

- The prevalence of malaria was 1.3% (95% CI = 1.1–1.6) (n=94) among 6995 individuals tested.
- Most infections were caused by *P. vivax* 47 (50%) or *P. falciparum* 43 (46%).
- Fifty six (79%) of the 71 study participants (n=71) who reported a fever in the 72 hours prior to the survey had malaria.
- Being female (AOR: 1.41; 95% CI: 1.23-1.63), being between the ages of 5 and 14 (AOR: 3.32; 95% CI: 2.56-4.30) compared to older than 15 years, and being in the poorest households (AOR: 1.29; 95% CI: 1.22-1.36) compared to the wealthiest were significantly associated with malaria infection.



Figure 1: Housing structures in rural Sidama region, Southern Ethiopia

## Conclusions

- Malaria was prevalent in southern Ethiopian districts targeted for elimination.
- A malaria control programme should consider the demographic groups most at risk, especially women and children, as well as the poorest communities.

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