





UNIVERSITY OF BERGEN Global Health Priorities



Economic Burden of Malaria for Rural Households in Ethiopia

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Summary

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Since 2010, the global malaria mortality rate among under-five children reduced by 30%.¹ While new prevention and control measures have helped reduce malaria mortality worldwide, malaria remains a problem in Ethiopia. Malaria impacts Ethiopian households through out-of-pocket payments for care and losses in work productivity. There is however little evidence on the economic impact of malaria on rural households in Ethiopia. With universal health coverage as a major goal for the Ethiopian health system, it is critical to develop an evidence base to help inform the revision of the country's essential health services package (EHSP) and reduce illness-related poverty.

Background

Ethiopia has over 1.8 million confirmed malaria cases annually.¹ Malaria transmission is seasonal in Ethiopia and the contribution of *Plasmodium vivax* is high. The recurrent forms of malaria expose poor households to sustained economic impoverishment both when seeking treatment and in lost productivity.

Malaria and poverty are closely related,² and previous studies have shown that malaria represents a major economic burden to Ethiopian rural households.³⁻⁶

Disease Control Priorities-Ethiopia (DCP-E)

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Socioeconomic status	Direct costs (\$) (mean, median in parentheses)	Indirect costs (\$) (mean, median in parentheses)
Poorest	3.1 (3.2)	3.2 (2.3)
Poorer	3.0 (3.2)	3.7 (3.6)
Middle	2.4 (2.4)	3.1 (1.9)
Richer	1.8 (1.7)	4.7 (4.0)
Richest	1.7 (1.1)	4.0 (1.5)

Summary table. Mean (and median) malaria costs across different socioeconomic status, Adami Tullu district in south-central Ethiopia, 2015. Source: Hailu, Lindtjørn, et al. PLoS ONE (2017).

A Closer Look at the Evidence

We summarize here a study by Hailu and colleagues⁷ which estimated the extent of direct and indirect costs of malaria and identified predictors of cost variability to rural households in south-central Ethiopia.

Methodology

The study was conducted in Adami Tullu district in the Oromia region. Data was collected from three rural health centers and nine health posts.

Participants

There were a total of 190 respondents. The mean household size was 5.1 and the majority of participants were Oromo, Muslims, farmers and from male-headed households. The mean age of malaria patients was 16 years.

Cost of illness estimation

A cost of illness estimation was pursued by identifying, measuring, and valuing the opportunity cost of the forgone resources caused by malaria episodes.

Results

The mean and median household costs per malaria episode are reported in the summary table.

The costs related to malaria episodes were substantial, and disproportionality impacted rural poor households.⁸ The authors found that "the recurrent nature of malaria and a coincidence of malaria peak season with harvesting season accentuated the burden for the rural poor who are already dependent on subsistence farming and with limited coping options."^{7,9,10}

Next Steps

Reducing malaria burden could contribute to poverty reduction in Ethiopia. The national EHSP needs to recognize this economic burden and identify mechanisms to ensure that the poor have access to subsidized or free of charge malaria treatment services.

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