



Effect of Using Insecticide  
Treated Clothes (ITCs) on Malaria  
Transmission in Dadaab Refugee Camps,  
North Eastern Kenya:  
A Community Trial

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## ABSTRACT

A community trial was undertaken between April and August 2002 among refugees in Dadaab refugee camps, Garissa District, North Eastern Province, Kenya. The study sought to determine the effect of using Insecticide-Treated-Clothes (ITCs) on malaria transmission. The study involved a total of 198 participants who were refugees of Somali origin. The study was conducted in Ifo camp, one of the Dadaab refugee camps. The participants were selected from two blocks through multi-stage random sampling. Half of the participants, (treatment group) had their clothes treated with Permethrin (Peripel EC 55) while the other half, (comparison group) had their clothes treated with a Placebo. The objectives of the study included determining the effect of the ITCs on infection with malaria parasites and on indoor mosquito density. Experiences of using ITCs were also assessed.

Pre-test and post-test data collection was done through laboratory analysis of blood samples, mosquito collection, questionnaires and observation. Using SPSS statistical package, analysis involving comparing proportions using  $\chi^2$  and comparing means using t-test was done. Statistical significance was assumed at 5% level of significance.

It was found that use of ITCs significantly reduced both malaria infection rates and indoor mosquito density. No side effects were reported from use of the ITCs. The concept was highly accepted in the refugee community and they considered it beneficial to them.

In conclusion, the use of ITCs has potential as an appropriate method of malaria control, It was recommended, therefore, that this strategy be considered for use in underprivileged communities like those living in the slums especially for vulnerable groups like pregnant mothers and during emergency situations like during influx of refugees to a malaria prone region.

