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ASSESSMENT OF THE PREVALENCE AND TRANSMISSION OF  
MALARIA IN ELDORET MUNICIPALITY //

BY

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**ABSTRACT**

An assessment of malaria was done on a representative sample of Primary school children within Eldoret Municipality over a six-month period (September, 1993 - February 1994). Microscopic examination of Giemsa-stained thick and thin blood films for malaria parasites was done for each individual in the sample. The results obtained were analyzed in reference to the age of the subject, their residential location and schools attended.

15.8% (n = 3125) of the children examined were found to have Plasmodia. 84.77% of these had low malaria parasite densities (less than 100 infected Red blood cells per 200 white blood cells in the thin film)

Plasmodium species prevalence varied significantly with age. The most significant variation was attributed to the 5-9 year old age group in whom malaria densities varied significantly ( $P < 0.001$ ).

Malaria prevalence and level of infection was also found to differ significantly in various residential location ( $P < 0.001$ ). This was only true for children under 14 years old.

There was no significant locational variation in malaria prevalence in the 15 - 19 year old age group. Plasmodium falciparum was the most prevalent (99.978%), Plasmodium ovale constituted 0.004% and mixed infections of Plasmodium falciparum and Plasmodium malariae constituted about 0.004%.

Adult mosquitoes captured in the field and those emerging in the laboratory from larvae and pupae collected from the field were identified morphologically as members of the Anopheles gambiae complex. Cytotaxonomy by use of polytene chromosomes of the ovarian nurse cells from semi-gravid female anopheles showed that 83.33 % of the adult females collected in the field were Anopheles gambiae s.s. and 16.67% were Anopheles arabiensis. The females % of the adult mosquitoes collected were negative for oocyst and sporozoites.

The results obtained in this study suggested that there is malaria of the non-epidemic type in the study area, the transmission of which is maintained by An. gambiae s.s and An. Arabiensis.