

**THE PREVALENCE, ASSOCIATED FACTORS AND EFFECTS OF MALARIA
IN SCHOOL CHILDREN IN UASIN GISHU DISTRICT, KENYA.**

BY



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ABSTRACT

Background: Malaria is a major cause of morbidity and mortality in early childhood, but its consequences during the school-age years are less widely acknowledged.

Objectives: To determine the prevalence, associated factors and effects of malaria infection in school children in Sirikwa Sub-location, Uasin Gishu District

Methodology: This was a cross-sectional study done in Sirikwa Sub-location, 35km north of Eldoret in Uasin Gishu District between October 2005 and March 2006 involving 251 school children. The participants were selected using systematic sampling from the 4 primary and 4 nursery schools in the study area. A questionnaire was administered and the following variables were measured: malariometric survey (parasite rate, spleen rate, haemoglobin level, and temperature), identification of *Anopheles* mosquito breeding sites and calculation distance (s) to nearest household using Geographic Positioning Systems (GPS). Data was entered into SPSS software version 10.0 and analyzed quantitatively using descriptive, Chi-square, regression and ANOVA at 0.05 level of statistical significance with parasitaemia as the dependent variable.

Results: The overall malaria parasite prevalence was 15.5%, with a higher prevalence of 20.4% among participants living <500m from mosquito breeding sites and prevalence of 9.2% among those living >500m, ($X^2 = 9.321$, $p = 0.025$). Distance from anopheline mosquito breeding site was the strongest predictor of parasitaemia ($p=0.005$) compared to age ($p=0.022$), fever ($p=0.043$) IRS ($p=0.048$) and ITN ($p=0.084$). Children living less than 500m from the nearest vector-breeding site had higher previous malaria attacks, school absenteeism, malaria prevalence rate, spleen rate, gametocyte rate and anaemia. Children less than 9 years had higher rate of malaria prevalence, spleen and anemia than children over 9 years.

Conclusion: Malaria transmission in the study area is heterogeneous over a small geographic area. School children have a high burden of malaria and schools should be incorporated in malaria control strategies.

Keywords: Prevalence, Associated factors, Effects, Malaria, School children, Uasin Gishu, Kenya.