

This study investigate some of the key epidemiological factors in schistosomiasis transmission such as prevalence and intensity of infection in both human and molluscan hosts, vector bionomics embracing snail density and distribution, availability of basic sanitary facilities as well as climatic conditions. The study subjects were individuals occupationally (car washers and fishermen) exposed to Lake Victoria waters in Kisumu the municipality.

Relative seasonal variations in densities and infection levels in snail populations were determined by snail collection and counts, and shedding for cercariae. Rainfall data for the area was recorded. Temperature, oxygen saturation, Secchi disc transparency and vegetation cover were recorded at the time of snail sampling. Faecal contamination of the lake waters was assessed by determination of the most probable number of faecal streptococci. Prevalence and intensity of *S. mansoni* in human hosts and re-infection levels following treatment were determined by stool examination for number of eggs per gram.

At all the sites sanitary conditions were poor, there were no latrines and clients used bushes around the shore for their toilet needs. There was a significant relationship between the seasonal variation in snail abundance and the total monthly sunshine hours at all the sites ($P < 0.05$) fishermen beach was negatively correlated with total sunshine hours. Mean snail density from all the sites were negatively correlated with the mean monthly rainfall ($P < 0.05$). A negative relationship was found between the percentage coverage of water with hyacinth and the water oxygen content at the Kisumu fisherman and the car wash beaches ($P < 0.001$).

The Kisumu fishermen beach had the highest number of snails and also the highest proportion of positive snails followed by car wash. Kisian beach had the least number and proportion of positive snails. This was also the case with the average eggs per gram at the three sites.

The findings are very important in the understanding of the schistosomiasis transmission in the Kisumu municipality and may contribute to devising feasible schistosomiasis control strategies in the area.