ABSTRACT.

The present study was conducted within six month period from January to June 1991 in some selected malarious villages in the Kurunegala District.82%-86% of the total population in the chosen villages were screened for malaria parasites by several blood surveys.An average malaria prevalence rate of 4.47% to 7.08% was detected in the different health areas during these surveillences.

It is generally considered,and frequently stated that the incidence of asymptomatic malaria carriers in Sri Lanka is extremely low or insignificant because most infected individuals develop the disease due to a lack of immunity.Theses assumptions have been mainly based on observations made by Passive Case Detection. The present study was carried out to investigate the extent of the asymptomatic carrier states prevalent in a malaria endemic region of shri lanka. The study reveals that of all malaria infections detected, at least 11% are truly asymptomatic cases, they having not experienced any symptom during a period extending up to one month previously, while harboring parasites. At least another 20% appear to be asymptomatic during some time of their infections. The number of symptomatic malaria infections were inversely proportional to the age and the number of previous malaria attacks suggesting that their asymptomatic state was due to the acquisition of some source of immunity.These asymptomatic parasite carriers appear to be the contributory sources of infection for epidemic outbreaks of the malaria when environmental conditions are favorable for high production of vector densities.

Passive Case Detection only will thus not be sufficient to adequately control the malaria parasite rate in malarious villages in the Kurunegala District since the proportion of asymptomatic malaria parasite carriers can be considerable in such villages.

It was also found that the nature of houses constructions influences the prevalence of malaria in the Kurunegala District since the total malaria incidence and the proportion of asymptomatic malaria incidence detected was higher among the occupants of poorly constructed houses.

There was a gradual decrease in the malaria incidence rate from the Dry Zone through Intermediate Zone to the Wet Zone areas in the Kurunegala District thus showing a direct relationship with the associated climatic differences in the respective areas.

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