

3936042 PPHP/M : MAJOR : INFECTIOUS DISEASE : M.Sc. (PUBLIC HEALTH)

KEYWORD : MALARIA/ VECTOR OF MALARIA/ REPELLENT/ PROTECTION TIMES/  
KNOWLEDGE/ ATTITUDE/ PRACTICE

PIMPAPORN SHAUBANGKAO: EPIDEMIOLOGY AND PERSONAL  
PROTECTION OF MALARIA IN HILLTRIBE PEOPLE. THESIS ADVISOR: SOMKIET  
VONGTANGSWAD, Dr.P.H. PAKPIMOL MAHANNOP, Ph.D. WONGDYAN PANDII,  
Dr.P.H. YUPA RONGSRIYAM, Ph.D, LSHTM. 157 p. ISBN 974-589-931-3

The study was performed with 286 Karen hilltribe people (143 households) at Wat Jan, Tumbol Watjun, Amphur Maejam, Chiang-Mai Province, in 1997. The objective is to study the prevalence of malaria infection in Karen people, Karen people's personal protection, type of mosquitos vector, efficacy of three kinds repellents(Jaico, Ta-krai-Horme(*Cymbopogon nardus*) and Kor-Yor15), and Karen people's knowledge, attitude and practice related to malaria infection. The blood samples were collected and examined by thick blood film and thin blood film with giemsa's stain. The positive rate was 7.3%, of which 6.6% was *Plasmodium vivax* and 0.7% was *Plasmodium falciparum* and was highest in the 20-29 years age group (16.3%).

950 mosquito samples were collected in the study area by paper cub collection. The mosquito vector of malaria was found to be 29.4%. Mosquitoes were *Anopheles minimus A* (12.9%), *Anopheles sinensis* (5.4%), *Anopheles pseudowillmori* (4.4%), *Anopheles willmori* (3.5%), and *Anopheles minimus C* (3.2%). No sporozoites were found in the salivary glands of the mosquitoes vector.

From the comparative study of 3 kinds of mentioned repellents, it was found that the average protection time of Jaico was significantly longer than Ta-krai-Horme(*Cymbopogon nardus*) at  $p\text{-value} < 0.05$ , and was longer but not significantly different from Kor.Yor.15 .

The knowledge related to malaria infection was associated with malaria infections ( $p\text{-value} < 0.05$ ), but it was not associated with the intensity of malaria infection. Furthermore the attitude and practice were not associated to the prevalence and intensity of malaria infections.

Malaria prevalence was associated with self-protection behavior (the using of mosquito coil, taking off the dress during working and spending the night in the forest) at ( $p\text{-value} < 0.05$ ), but was not associated with other variables (sleeping under the mosquito net, using of the mosquito spray and using of the cloth).