

ASSESSMENT OF FACTORS ASSOCIATED WITH FEVER AMONG MIGRANTS IN YALA PROVINCE, SOUTHERN THAILAND

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Abstract. Cross-border migration is one of the factors contributing to the spread of malaria. Malaria is a public health problem in Yala Province, southern Thailand. Fever is a symptom suggestive of malaria in malaria endemic areas. In this study, we aimed to determine the incidence of fever among migrants during the previous three months, the proportion of migrants who sought healthcare for fever and were tested for malaria, and the factors associated with seeking healthcare when having a fever in order to inform malaria elimination programs in the study area. We conducted a cross-sectional survey of migrants in thirty malaria transmission villages /hamlets in four districts of Yala Province, Thailand during July to October 2019. Subjects were chosen by targeted sampling at each selected village/hamlet based on an established quota. The number of study subjects was chosen using the proportion of migrants who had fever during the previous two weeks (3.5%) reported in a previous survey in Thailand. Each subject was interviewed face-to-face by a trained volunteer using a pilot-tested questionnaire to obtain data regarding history of fever during the previous three months, types of healthcare services they chose, whether they got tested for malaria, their knowledge about malaria and insecticide-treated net use, socio-demographics and movement characteristics. After data collection, questionnaire results were coded and quantified. The socio-demographic and knowledge factors associated with seeking healthcare service for fever were assessed using logistic regression analyses. A total of 414 subjects were included in the study, 71.5% males. The mean (\pm standard deviation) age of study subjects was 29.9 (\pm 9.3) years. Thirty-six point five percent of subjects had fever during the previous three months; 18.7% sought healthcare services for fever and 16.4% were tested for malaria. Of the subjects who sought healthcare services for fever, 46.5% went to a village health volunteer, 34.8% visited a malaria post in the village and 18.0% went to a private clinic. Of those who did not seek health care, 45.7% self-treated. Twenty-six point eight percent of the total study subjects received malaria-related health education. On multivariable analysis, factors significantly associated with seeking healthcare service were: knowing that malaria required treatment (odds ratio (OR): 4.03; 95% confidence interval (CI): 1.52-10.65; $p=0.020$), and working in or spending the night in the forest (OR: 4.86; 95%CI: 2.01-11.78; $p=0.011$). In our study, about one third of subjects had fever during the previous 3 months, about half of whom sought healthcare and most of these were tested for malaria. Factors significantly associated with seeking healthcare for fever were having a knowledge that malaria needed treatment and working overnight in the forest. Healthcare seeking among

study subjects with fever was inadequate and self-medication was a common practice. Further studies are needed to determine if educating the population in the study area regarding malaria will increase treatment seeking behavior and decrease the incidence of malaria in the study area.

Keywords: Migrants, Malaria, Yala, Thailand.

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