

# MIGRANTS AND MALARIA RISK FACTORS: A STUDY OF THE THAI-MYANMAR BORDER

Rungrawee Tipmontree<sup>1,2</sup>, Wijitr Fungladda<sup>1</sup>, Jaranit Kaewkungwal<sup>1</sup>,  
MA Sandra B Tempongko<sup>3</sup> and Frank-Peter Schelp<sup>4</sup>

<sup>1</sup>Faculty of Tropical Medicine, Mahidol University, Bangkok;

<sup>2</sup>Bureau of Vector-Borne Disease, Department of Disease Control, Ministry of Public Health, Nonthaburi; <sup>3</sup>SEAMEO TROPMED Network, Bangkok, Thailand;

<sup>4</sup>Institute of Tropical Medicine, Charite Medical School Berlin, Germany

**Abstract.** The objective of this study was to investigate factors influencing self-reported malaria among migrants living along the Thai-Myanmar border. Songkaria Village, with 1600 inhabitants and 290 households in Sangkhla Buri District, Kanchanaburi Province, was selected for the study due to its intense malaria transmission. One hundred twenty-five households were randomly selected. Household members were interviewed about the history of malaria, socioeconomic status and knowledge and practices in regard to malaria using a structured questionnaire. Of the respondents, 10%, 42%, and 48% belonged to the Thai, Mon, and Karen ethnic groups, respectively. About 40 % of Thai and Karen migrants and almost 30% of Mon migrants reported having suffered from malaria at least once. Multivariate analysis focused on migrants. The results identified three independent factors for previous malaria: a high risk occupation, *ie* working primarily in the forest [odds ratio (OR), 3.55; 95% confidence interval 1.3-10.0], ability to read Thai [OR, 4.13 (1.5-11.7)], and correct knowledge about malaria symptoms [OR, 5.18 (1.1-23.5)]. Working conditions among migrants played a major role in acquiring malaria. They could not afford to apply additional preventive measures, such as using a mosquito net or repellent to be used while working. The concept of enhancing the environment for migrants to enable them to protect themselves against malaria needs to be examined. Ways and means of improving the economic conditions of migrants should be considered to minimize exposure to the vector.

---

Correspondence: Dr Wijitr Fungladda, Department of Social and Environmental Medicine, Faculty of Tropical Medicine, Mahidol University, 420/6 Ratchawithi Road, Bangkok 10400, Thailand.

Tel: +66 (0) 2354 9100 ext 1561, 1685 Fax: +66 (0) 23069178

E-mail: tmvfd@mahidol.ac.th