

CHARACTERISTICS AND MALARIA PREVALENCE OF MIGRANT POPULATIONS IN MALARIA-ENDEMIC AREAS ALONG THE THAI-CAMBODIAN BORDER

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Abstract. The rise of artemisinin resistant *Plasmodium falciparum* along the Thai-Cambodian border is an urgent public health threat. We conducted an employer-based survey of migrant workers in two provinces in Thailand along the Thai-Cambodian border to explore socio-economic conditions, bednet ownership, and parasite prevalence among migrant workers. Five thousand three hundred seventy-one migrant workers were enrolled in this study; 56.9% were male. Cambodians comprised 69.0%, migrants from Myanmar comprised 20.7% and Mon and Laotian comprised 10.3%. Short term (<6 months) Cambodian migrants, primarily located in Chanthaburi Province, typically work in orchards or on cassava farms. The majority did not speak Thai and bednet ownership was low. The only cases of malaria, all *P. vivax*, were found in Chanthaburi. Migrants in Trat Province were primarily long-term residents (>6 months) from Cambodia and Myanmar and were engaged in rubber tapping, fisheries and domestic work. Bednet ownership and oral Thai fluency were higher, though Thai literacy remained low. Migrants from Myanmar had higher mother tongue literacy than migrants from Cambodia. The low oral Thai fluency and literacy rates suggest a Behavior Change Communication (BCC) package for Cambodian migrants should be developed in the Cambodian language. The low parasite prevalence and absence of *P. falciparum* in this study are encouraging signs in the fight against artemisinin resistance in eastern Thailand.

Keywords: malaria, migrant workers, mass screening, endemic area

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