

SURVEILLANCE OF MALARIA INFECTION IN ROYAL THAI ARMY AREAS OF OPERATION (AO) ALONG THE THAI-MYANMAR BORDER DURING 2001 TO 2004

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PROGRESS REPORT

Military areas of operation (AO) along the Thai-Myanmar border (Tak province) are known to be malaria endemic. Therefore, immune naive troops who are deployed to these areas are at risk of malaria infection. Upon infection, soldiers are evacuated from the AO causing a force reduction. Malaria surveillance is crucial for effective malaria prophylaxis and decreases disease non-battle injury (DNBI). We have conducted a continuous surveillance program to obtain the epidemiological information of malaria in the AO along the Thai-Myanmar border (Tak province). Approximately 1,120 army troops were screened monthly for malaria infection in peripheral blood using a rapid test (Optimal kit) and microscopic confirmation. Additional surveillance data was also collected from local healthcare providers. From 2001 to 2004, malaria infections among army troops in the AO along the Thai-Myanmar border (Tak province) were 13.3%, 9.0%, 7.4% and 10.3%, respectively. Malaria cases peaked twice each year from October to February and May to July. An interesting point was that the incidences of *P. vivax* increased each year and implied a shift to primary malaria infection. Furthermore, mixed-species infections also increased. Malaria remains a major health problem in the AOs along the Thai-Myanmar border and active surveillance must be continued to evaluate the efficacy of the malaria control program.