

# PhD defence Pham Vinh Thanh

## Epidemiology of Plasmodium vivax malaria in Central Vietnam

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Reservatie aangeraden



Dit is de omschrijving

### Supervisors:

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### Summary:

Despite the success of malaria control programs in the past decade, malaria remains an important public health problem in Vietnam. A challenge faced by the National Malaria Control and Elimination Programme is the ability to target and eliminate the remaining parasite reservoir in endemic areas. The cross-sectional and longitudinal studies were carried out in malaria endemic areas in Central Vietnam and both of them combined PCR and LM for malaria parasite detection methods. The results of the cross-sectional study confirmed the high malaria parasite reservoir detection due to PCR alone and asymptomatic with LM malaria parasite positive with two malaria parasite species contribution to malaria burden in study area which included *Plasmodium falciparum* and *Plasmodium vivax*. The longitudinal study followed up *P. vivax* infected patients for two years and within the first month there were three *P. vivax* cases were confirmed resistant to Chloroquine. Afterward, the high number of *P. vivax* recurrences with submicroscopic and asymptomatic infection were recorded despite the high dose of PQ treatment with direct observation of the study team. To overcome asymptomatic and sub-patent reservoirs, calls for an immediate combination of molecular and LM detecting malaria hotspots for targeted interventions. *P. vivax* resistance to CQ and high morbidity of *P. vivax* recurrences after PQ treatment are alarming to NMCP, changing treatment policy to new drugs with high effectiveness and short course.