PROJECT BRIEF

Targeting malaria infection and artemisinin resistance in formal/informal border points on the Cambodia-Laos border

This study will estimate the impact of migrant populations on the spread of malaria and artemisinin resistance in the Greater Mekong Subregion, especially along the Cambodia-Laos border. The project will also support the National Malaria Programme to strengthen surveillance methods for elimination of malaria and drug-resistant parasites.

Project outline

Cross-country population movements represent a challenge for malaria elimination as they can lead to reintroduction of the disease in areas where it had previously been reduced or eliminated. A recent study conducted by Malaria Consortium between July 2013 and April 2014 investigated malaria prevalence in populations crossing Cambodian borders identified that the number of confirmed malaria cases per 100 suspected cases examined (positivity rate) at the Trapaing Kreal international border checkpoint between Cambodia and Laos border, Stung Treng province is the highest compared to other sites. It accounts for 11.5 percent compared to 0.7 percent in Pailin province on the Cambodia-Thailand border, and 3.6 percent in Rattanakiri province on the Cambodia-Vietnam border.

Furthermore, the formal border between Cambodia and Laos is highly porous, with 12 unofficial border crossing sites reported to be in this area. Very little is known about these unofficial sites and how they may contribute to the spread of malaria and artemisinin resistance. Thus, the current survey will be conducted at this formal border and seven other informal border crossing sites that people frequently use. Two approaches will be used: 1) screening of border crossers being asked about their experiences living in an area designated as a malaria hotspot.

Country
Cambodia, Stung Treng province (Cambodia-Laos border)

Donor
UK Government

Length of project
September 2015 to March 2016

Partners
National Center for Parasitology Entomology and Malaria Control Ministry of Health Cambodia (CNM) Stung Treng Provincial Health Department Institute Pasteur of Cambodia
crossers at border crossing points, and 2) using mobile malaria workers (MMW) to screen individuals at plantations and farms known to have cross the border within the previous two weeks. It is critical that we better understand the use of these unofficial sites in order to capture the impact of migrant populations on malaria transmission.

This project will contribute significantly to the recently developed Malaria Migrant Strategy prepared by the National Center for Parasitology, Entomology and Malaria Control (CNM) in collaboration with Malaria Consortium, providing insights into potential approaches that target malaria control and elimination activities to migrant and mobile populations.

Following the implementation phase, data will be analysed and findings will be disseminated to inform future interventions that target border areas in Cambodia. The project will help efforts to eliminate artemisinin resistance as well as build on the broader goals to strengthen border surveillance systems and work toward elimination across the region.

**Project objectives**

1. To characterise the use of informal border points along the Cambodia-Laos border and assess the importance of these crossing points in the spread of malaria, including artemisinin resistant malaria.
2. To suggest, based on real evidence, an optimal method of surveillance to target populations crossing informal border points between Cambodia and Laos.
3. To develop and distribute appropriate behaviour change communication materials to optimally improve awareness of malaria, malaria prevention methods and available services to migrant groups that cross the border.
4. To identify specific risk factors among populations crossing both the formal and informal borders, allowing project staff to help authorities decide who at the border should be tested for malaria parasites.
5. To inform and engage border police personnel in all proposed activities, introduce regular malaria testing of personnel and subsequent reporting of positive cases to the national malaria information system.
6. To report all diagnosed malaria cases to the malaria information system in Cambodia.

This project supports efforts to deliver:

- Malaria elimination
- Capacity building
- Monitoring, evaluation and surveillance
- Policy change / advocacy

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