Preventing Cross Border Transmission of Malaria

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Despite an increase in funding for malaria control during the last decade, and notable achievements in the treatment of malaria, we still have a long way to go to eliminate the disease. In December 2014, the World Health Organization reported that 3.5 billion people are still at risk of contracting malaria. In 2013, there were 198 million cases and 584,000 deaths from malaria, the majority among children in Africa.

One of the biggest challenges we face in the control of malaria is cross border malaria transmission. In recent years, there has been mass migration of populations across borders, making it difficult to implement control measures and halt the spread of the disease. Imported cases of malaria have been reported in Argentina, South Africa, and Southeast Asia, to name a few. Cross border transmission presents a number of challenges, including the introduction of infection in disease-free areas and in areas that had achieved elimination or control, and the introduction of new drug-resistant malaria parasite strains.

This Expert Panel examined the barriers to achieving complete control and elimination of malaria transmission across borders and examined strategies for collaboration, training, and operational research to support these efforts across countries.

Key Points

• The main challenge in controlling cross border malaria transmission is the current lack of measures and practices that are feasible and easy to implement.
  - It is important to consider screening methods at airports—how can countries ensure methods are followed in high-traffic environments, without missing travelers?
  - Borders are porous and, in many cases, imaginary, especially in areas without natural border demarcations, like rivers.
    ▪ Communities exist across borders and share many things, including malaria.

• Political will, mobilization of populations, and involvement of all stakeholders are key in achieving proper implementation of strategies to prevent cross border transmission.
  - Competing activities across countries must be identified and reconciled.
  - Adopted measures must be rigorously monitored and enforced by all countries.
  - Countries should create buffer zones by implementing indoor residual spraying (IRS) along borders.
  - Effective integrated vector management (IVM) programs across countries are essential; governments and NGOs should revisit the way vector control funding is allocated.
    ▪ IVM must be actively implemented in all communities across borders.
  - It is critical to establish formal and informal checkpoints for malaria detection across borders, like the one in Southeast Asia.
  - Efforts must consider strategies for engaging vulnerable populations in remote areas that often lack sound public health infrastructures.
It is important to gain political will from high-level politicians who can help design and implement malaria elimination roadmaps, such as the one implemented in the Southeast Asia region.

- Successful programs should be studied to inform future efforts, such as the “Prevent, Test, Treat and Track” strategy implemented in Cambodia.

- There are valuable lessons to be learned from TB and HIV communities focusing on cross border transmission.
  - For example, the Border Lookout program implemented between the US and Mexico, that was used to detect and treat migrants with TB, could be useful for informing cross border malaria transmission programs.

Key Resources

- Changes in malaria morbidity and mortality in Mpumalanga Province, South Africa (2001–2009): a retrospective study
- Pan American Health Organization: Argentina: Health Situation Analysis and Trends
- Global Health Group: Country Briefing: Eliminating malaria in Argentina
- The challenges of malaria elimination in Yunnan Province, People’s Republic of China
- Asia Pacific Leaders Malaria Alliance
- Novel Cross-Border Approaches to Optimise Identification of Asymptomatic and Artemisinin-Resistant Plasmodium Infection in Mobile Populations Crossing Cambodian Borders
- Malaria and the mobile and migrant population in Cambodia
- Emergency response to artemisinin resistance in the Greater Mekong sub region
- Strategy for malaria elimination in the Greater Mekong Sub-region: 2015-2030
- Improving access to malaria control services for migrant and mobile populations in the context of the emergency response to artemisinin resistance in the Greater Mekong Sub-region
- Technical consultation on improving access to malaria control services for migrants and mobile populations in the context of the emergency response to artemisinin resistance in the Greater Mekong Sub-region
- Mobile and migrant populations and malaria information systems
- Decision-tree framework for selecting study methods for malaria interventions in mobile and migrant populations
- Vector control and personal protection of migrant and mobile populations in the Greater Mekong sub-region: A matrix guidance on the best options and methodologies
- Border Lookout: Enhancing Tuberculosis Control on the United States–Mexico Border

References

