

## **Abstract**

This monograph brings together national malaria databases for 1996, 1997 and 1998 from the 6 countries comprising the Greater Mekong Subregion of Southeast Asia: Cambodia, China (southern provinces), Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam. The objective is to create a regional perspective in what is a global epicenter of drug resistant falciparum malaria, so to enhance the information flow required to improve malaria control on a regional basis in the context of economic and social change. Geographical Information Systems technology has been applied to the regional mapping of total reported malaria cases, malaria incidence, confirmed cases, parasite species distribution. There is great diversity in disease patterns in the 6 countries and at subnational administrative unit area level in each country, so that in the region as a whole there is marked asymmetry in disease distribution, with many areas of high endemicity. Focal expansion of maps in the vicinity of international border areas delineates the differential trans-border malaria distribution that presents a challenge for disease control. The malaria pattern is also depicted in environmental context against regional elevation and forest cover profiles, which affect mosquito breeding site distribution and agricultural activity. Data on resistance of falciparum malaria to a range of anti-malarial drugs summarize the historical and recent context of resistance development and spread in terms of geography and time frame. Data on population movement across international borders identify the magnitude of a major factor in the dispersal of malaria, including resistant parasite strains. Malaria control involves consideration of microeconomic capacity and operates in the broader context of macroeconomic policy: economic and social profiles of the region are included to provide this perspective. So too are maps depicting major economic development projects in the region, projects that have and will continue to have profound, dynamic impacts on malaria epidemiology. The geographic collation of regional malaria databases is thus placed in overall geographic, health, environmental and economic perspective. This beginning can form a basis for the development of an effective regional malaria surveillance system in the context of rapidly evolving social and infrastructural change, leading eventually to a multi-disease surveillance network.