Collating and updating regional malaria databases

The first Mekong Malaria monograph collated malaria data collected by the 6 countries of the Mekong region for the years 1996, 1997, 1998 under the auspices of SEAMEO TROPMED Network, by the Regional GIS Unit, Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University. Mekong Malaria II represents an extension of that initiative by the 6 countries and the GIS Unit to the years 1999, 2000, 2001, with support of Roll Back Malaria Mekong and SEAMEO TROPMED Network. As before, the respective databases remain the property of the health ministry of each country but have been contributed freely for the purpose of building the regional perspective.

Mekong Malaria II provides an overview of 6 years, merging the original database from 1996, 1997, 1998, with additional inputs from 1999, 2000, 2001 and selected material from 2002. The data for the 6 years period encompasses total reported malaria cases, malaria incidence, laboratory-confirmed malaria cases, malaria parasite species, malaria mortality, together with additional data on resistance to antimalarial drugs and updated comments on socio-economic implications.

There are differences among the 6 countries in the methods of case data handling. Some countries routinely report only laboratory-confirmed cases, others rely to a greater or lesser extent on clinical diagnosis with partial coverage by microscopic and/or dipstick diagnosis. Some centers in all countries report confirmed cases rapidly followed by specific drug therapy; other smaller, more remote centers make blood smears and send these varying distances for laboratory diagnosis, so that the time lag before initiation of the most appropriate therapy may be considerable or too long. Much depends on the location of the patient, the communications and transport systems, as well as on the availability of the requisite human resources and on heterogeneity of case definition.

The strategy followed in bringing together national data from the 6 countries in this report in several different formats is as follows:

- 1. Total reported malaria cases per year for each year in 1999, 2000, 2001 added to the previously published cases for 1996, 1997, 1998 to give a 6-year span.
- 2. Malaria incidence (total reported cases) *i.e.* total reported cases per 1,000 population for each of the 6 years.
- 3. Malaria incidence (confirmed cases per 1,000 population) for which the countries have sufficient data for laboratory confirmation.

Figure 7 illustrates the differing pattern of laboratory confirmation throughout the 6 countries. Thus, while Cambodia, Lao PDR, Myanmar, Viet Nam report both confirmed and

non-confirmed cases, China/Yunnan and Thailand report only laboratory-confirmed cases.

The malaria data are mapped separately using the regional map software with data input in the unit area designated for each country. This approach permits rapid viewing of the patterns in the region as a whole and at the national and subnational levels. For more micro level dissection the data must be entered at levels below the designated administrative unit area.

It should be noted that these data are collected from the public health sector. Patient numbers in the public health sector probably represent underestimates of the true numbers. In addition in each country many patients are managed by the private sector or undergo self-treatment, the numbers involved being uncertain. These cases generally are not reported to the public sector unless the patients subsequently seek assistance there as a result of failed treatment. This means that the real case numbers are greater than those reported by the public health sector.

