Thailand

COUNTRY PROFILE

Overivew of malaria control activities and programme progress

Malaria in Thailand is forest-related and most prevalent along the international borders, especially on the Thai–Myanmar border. In the central plain areas, transmission has been eliminated for more than 2 decades. Malaria transmission in forested areas is intense, because of highly efficient vectors, enhanced vector longevity and extensive population movement into and out of these same areas. At national level, malaria cases and deaths have fallen gradually since 1999, but the disease remains an important public health problem along the international borders. Young adult males who work in or near forests are a special group at risk in these areas.

The NMCP was a specialized, vertical programme from its inception in 1949 until 1996, when it was partially merged with the control programme for other vector-borne diseases — dengue and filariasis — and is now known as the Bureau of Vector-Borne Diseases of the Department of Communicable Disease Control within the Ministry of Public Health. At regional level, the control programme structure comprises 12 Disease Prevention and Control offices, each directed by a medical officer. Throughout Thailand, there are 39 vector-borne disease control centres at provincial level and 302 vector-borne disease control units at district level that are responsible for the control of malaria as well as other vector-borne diseases. During the past decade, downsizing, decentralization and intregration of the control programme have resulted in a 30–40% reduction in the number of malaria staff throughout the country.

The major problems and constraints faced by the malaria control programme are: (i) transmission at the international borders among foreign workers; (ii) drug resistance along the Thai–Cambodian and Thai–Myanmar borders; (iii) acceptance of and willingness to use IRS; (iv) challenges in educating at-risk populations about unsafe behaviours; (v) emergence of epidemics as a result of migration of non-immune labour force following development projects into high-risk areas, and (vi) high case-fatality rates among non-immune groups such as tourists and migrants.

National funds available for malaria control activities totalled over US$ 18 million in 2003. Funding from the GFATM will provide an additional US$ 2.3 million over 2 years.

National malaria policy and strategy environment

National malaria strategy overview for 2003

	Strategy
Treatment and Diagnosis Guidelines	Yes
Published/updated in	2004
Monitoring antimalarial drug resistance	Yes
Number of sites currently active	9
Home management of malaria	NA
Vector control using insecticides	Yes
Monitoring insecticide resistance	Yes
Number of sites currently active	2
Insecticide-treated mosquito nets (ITNs)	Yes
Intermittent preventive treatment (IPT)	NA
Epidemic preparedness	Yes

Current antimalarial drug policy

	Current policy
Uncomplicated malaria	
P. falciparum (unconfirmed)	NA
P. falciparum (lab confirmed)	MQ (alone) or MQ + ASU(2d)
P. vivax	CQ+PQ
Treatment failure	Q(7d)+T(7d)
Severe malaria	ASU or Q
Pregnancy	
Prevention	NA
Treatment	Q(7d)

EPIDEMIOLOGICAL DATA

Following WHO recommendations, malaria case reporting is carried out in most countries. The data presented below reflect aggregated malaria cases at the national level and are presented by gender, age and subnational level as submitted to WHO. Malaria reporting from national surveillance systems varies in quality and reporting completeness and may have limited value in understanding the actual malaria burden, but may be useful for understanding trends in the relative burden of malaria in the public health sector.

Reported malaria cases (annual)

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
273 880	198 383	168 370	115 220	102 119	82 743	87 622	97 540	131 055	125 379

2000	2001	2002	2003
81 692	63 528	45 240	37 355

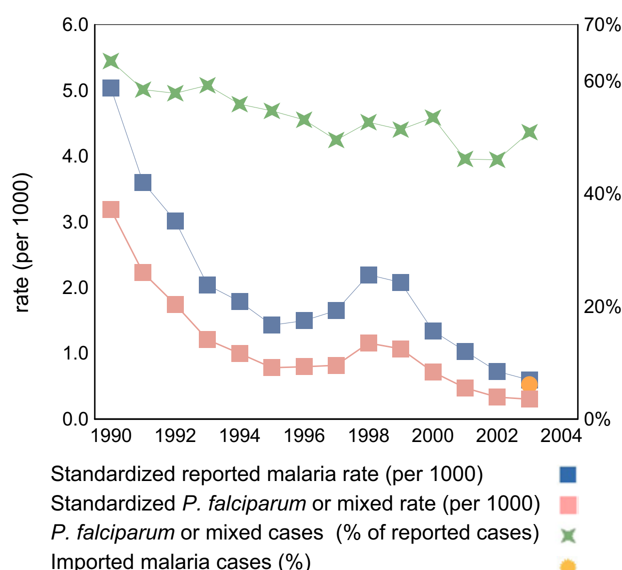
Date of last report: 1 October 2004

Reported malaria by type and quality

For most recent year: 2003

Reported malaria cases	37 355
Reported malaria deaths	325

Probable or clinically diagnosed	
Malaria cases	
Severe (inpatient or hospitalized) cases	
Malaria deaths	
Slides taken	3 256 939
Rapid diagnostic tests (RDTs) taken	2 668
Laboratory confirmed	
Malaria cases	37 355
P. falciparum or mixed	19 024
P. vivax	18 295
Severe (inpatient or hospitalized) cases	
Malaria deaths	325
Investigations	
Imported cases	2 279
Estimated reporting completeness (%)	80



Reported malaria cases by age and gender

Group	Subgroup	2000	2001	2002	2003	%
	Total	81 692	63 528	45 240	37 355	100
Gender	Male				24 879	67
	Female				12 476	33
Age	1-4 years	4 898	3 812			6
	<5 years				2 129	6
	5-9 years				3 100	8
	10-14 years				4 145	11
	15+ years				27 981	75
	15-19 years	15 524	15 882			25
	>19 years	61 269	43 834			69

Reported malaria cases by selected subnational area

10 areas	2000	2001	2002	2003	%
Tak				10 278	28
Yala				3 051	8
Kanchanaburi				2 659	7
Chanthaburi				2 628	7
Mae Hong Son				1 929	5
Chiangmai				1 732	5
Prachuap Kiri Khan				1 437	4
Ubon Ratchathani				1 186	3
Nakhon Sri Thammarat				1 166	3
Chumporn				1 080	3

COVERAGE OF ROLL BACK MALARIA INTERVENTIONS

Information related to the coverage of RBM key interventions is presented here. This includes coverage of antimalarial treatment, possession and use of insecticide-treated nets (ITNs), and use of intermittent preventive treatment (IPT) among pregnant women (PW) where national policy indicates.

Insecticide-treated nets

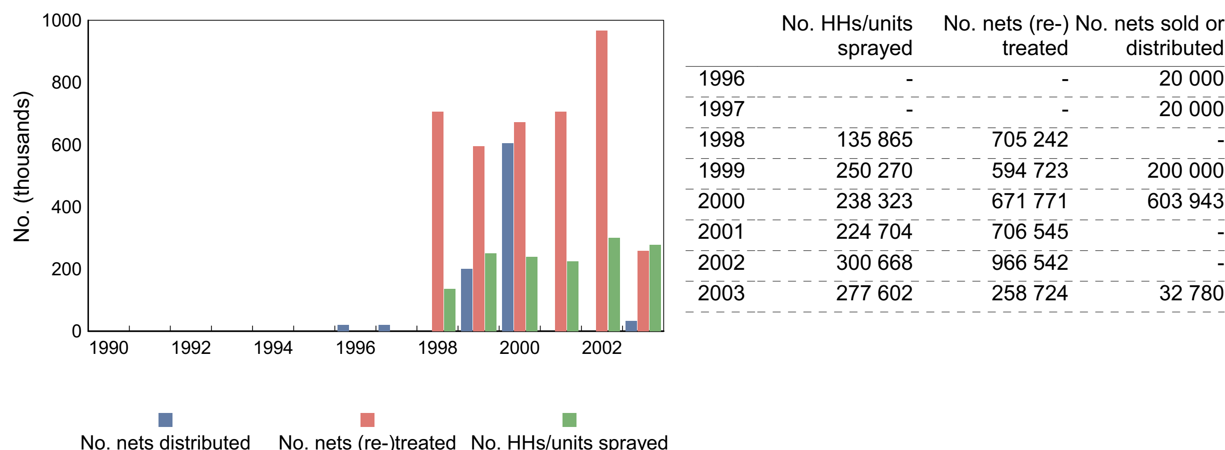
ITNs are one of the key interventions promoted by RBM. Coverage of ITNs is best assessed through household (HH) surveys which ask questions on possession and use of nets, as well as insecticide treatment status, among the target populations of children under 5 years of age (U5) and pregnant women. Data below represent available household survey results in which household possession and use of nets and ITNs have been assessed.

No survey-based estimates of mosquito net or ITN coverage are currently available.

SERVICE DELIVERY AND MALARIA-RELATED COMMODITIES

General malaria-related services delivered

Services delivered for malaria control include numbers of nets and insecticides delivered or sold, numbers of nets (re-)treated with insecticide and numbers of households (HHs)/units sprayed during IRS campaigns. These services and service-related commodities mostly reflect core malaria control activities of national malaria control programmes. The information reflects annual, country-reported data.



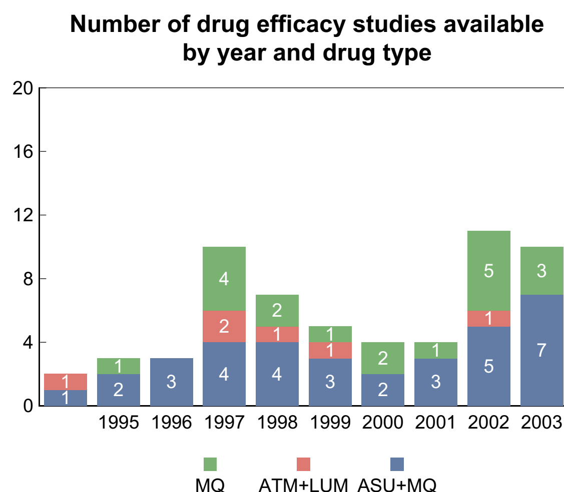
	No. HHs/units sprayed	No. nets (re-) treated	No. nets sold or distributed
1996	-	-	20 000
1997	-	-	20 000
1998	135 865	705 242	-
1999	250 270	594 723	200 000
2000	238 323	671 771	603 943
2001	224 704	706 545	-
2002	300 668	966 542	-
2003	277 602	258 724	32 780

Among the over 250,000 nets retreated in Thailand in 2003, over 111,000 (or 45%) were retreated in the provinces of Tak, Yala, Kanchanaburi, Chanthaburi, Maehong Son, Chiangmai.

MONITORING ANTIMALARIAL DRUG EFFICACY

Monitoring antimalarial drug efficacy is important for understanding the impact of antimalarial treatment being delivered and the need for drug policy change, essential for ensuring prompt access to effective treatment. Median, range and quartiles are based on percentage clinical failure for uncomplicated *P. falciparum* malaria for countries in Africa south of the Sahara, and percentage total failure for all other areas. Included are studies that used WHO protocol among selected drugs.

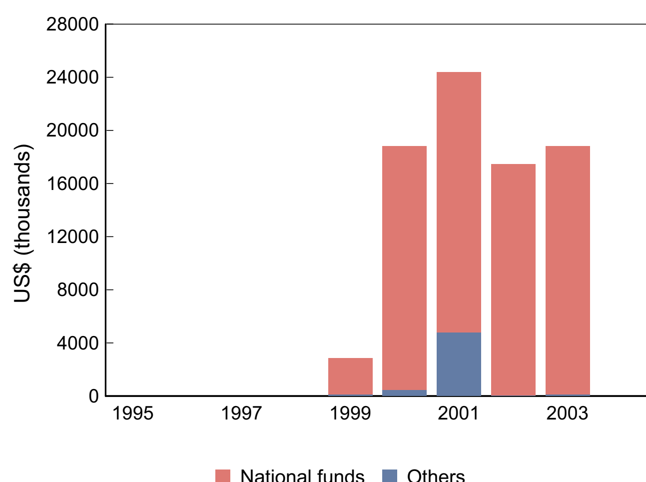
Study years	Number of studies	Median	Range		Percentile	
			Low	High	25th	75th
MQ						
1995-2003	19	13.8	2.0	68.4	7.5	28.0
ATM+LUM						
1996-2002	6	2.6	0.0	3.9	0.5	3.5
ASU+MQ						
1995-2003	34	3.6	0.0	21.4	1.2	8.1



FINANCING FOR MALARIA

Annual funding for malaria control

This information represents country-reported national and other resources budgeted or spent for national malaria control programme efforts. If information was reported in a different currency than US$, the annual average of the official exchange rate from the World Development Index was used for conversion. Currency is presented in US$ (thousands).



	National funds	Others
1995	-	
1996	-	
1997	-	
1998	-	
1999	2 717	155
2000	18 354	458
2001	19 578	4 797
2002	17 396	71
2003	18 700	117
2004	-	

Malaria funds from the Global Fund to Fight HIV, Tuberculosis, and Malaria

Information on additional resources provided to countries through GFATM from 2-year committed funds for malaria from successful proposals through the first four rounds is presented. The details on approved proposals, grant agreements and disbursements to date are provided. Figures are presented in US$. These data are maintained and updated by GFATM.

Approved proposals			Grant agreements and disbursements (as of 13 January 2005)						
Source	Round	Total year 1-2 budgets	Principal recipient	Signed	Signature date	Grant amount	No. of disbursements	Total disbursed	% disbursed
CCM	2	2 280 000	**MoH**	Yes	15-Oct-03	2 280 000	1	660 000	28.9%

General notes and remarks

See explanatory notes at the beginning of the section.
Reported malaria for 2003 are for Thai nationals only. An additional 408 699 blood slides were examined in 2003 with 32 395 positive slides, of which *18 120 were P*. falciparum, for foreign nationals residing in Thailand. The vast majority of these foreign nationals are reported as being from Myanmar.