

Overview of malaria control activities and programme progress

Since 1999, reported rates of confirmed malaria cases and deaths have fallen more than 10-fold; the rate of reported *P. falciparum* cases decreased in parallel. Approximately 70% of reported cases in 2003 were from the North-East Province, mainly from the districts of Ampara, Batticaloa, Kilinochchi, Mullativu and Trincomalee. There were two reported deaths caused by *P. falciparum* malaria in 2003 in Batticaloa and Kalmunai. *P. falciparum* resistance to CQ is increasing. The NMCP reports only microscopically confirmed malaria cases. Because many fever patients in Sri Lanka seek treatment through private sector health facilities and a number of patients in public sector facilities are treated for malaria without laboratory diagnosis, the actual number of malaria cases is likely to be much higher than reported. The tsunami of 26 December 2004 raised concern about an increased risk of epidemics in some coastal areas of Sri Lanka. Initial actions of larviciding appear to have prevented immediate outbreaks. Active surveillance is ongoing in order to assess the full impact on malaria transmission and disease burden.

Malaria control efforts in Sri Lanka are decentralized and, with the overall reductions in disease burden in recent years, control efforts made by regional managers are not intensively monitored. Early detection and prompt treatment is the mainstay of disease control. IRS is the major vector control measure, but ITN promotion has recently also become a national strategy. Larviciding is practised in selected areas.

In 2003, malaria was effectively controlled in the North-East Province and neighbouring districts, with close monitoring of the interventions. Monitoring and evaluation have been greatly hampered in recent years in Sri Lanka because of the civil war. With the ongoing peace initiatives and the reintroduction of malaria monitoring and surveillance activities, the NMCP is able to monitor the trend in malaria burden in areas where communication was previously hampered. A constraint for the NMCP is that the existing epidemiological and entomological surveillance systems are not adequate for early warning of malaria outbreaks and do not cover patients diagnosed and treated outside the public sector. Training of staff, quality control of diagnostic and treatment practices, and better access for the population to laboratory facilities are needed for case management and malaria diagnosis. Malaria control activities should become more evidence-based and planning should be better linked with agendas for research. Improved management skills are also needed.

National funds for malaria control in 2003 were a reported US\$ 2.5 million, a reduction from the previous year. The GFATM has disbursed over US\$ 3.6 million for two proposals from early applications. An additional GFATM grant has been approved that will contribute US\$ 2.2 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	
Home management of malaria	NA
Vector control using insecticides	Yes
Monitoring insecticide resistance	
Number of sites currently active	
Insecticide-treated mosquito nets (ITNs)	Yes
Intermittent preventive treatment (IPT)	NA
Epidemic preparedness	Yes

Current antimalarial drug policy

	Current policy
Uncomplicated malaria	
<i>P. falciparum</i> (unconfirmed)	CQ+PQ
<i>P. falciparum</i> (lab confirmed)	CQ+PQ
<i>P. vivax</i>	CQ+PQ
Treatment failure	SP+PQ
Severe malaria	Q(7d)
Pregnancy	
Prevention	
Treatment	CQ or Q

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
287 384	400 263	399 349	327 020	273 434	142 294	184 319	218 550	211 691	264 549
2000	2001	2002	2003	Date of last report: 1 October 2004					
210 039	66 522	41 411	10 510						

Reported malaria by type and quality

For most recent year

Reported malaria cases	10 510
Reported malaria deaths	2

Probable or clinically diagnosed

Malaria cases	
Severe (inpatient or hospitalized) cases	
Malaria deaths	
Slides taken	1 192 259
Rapid diagnostic tests (RDTs) taken	

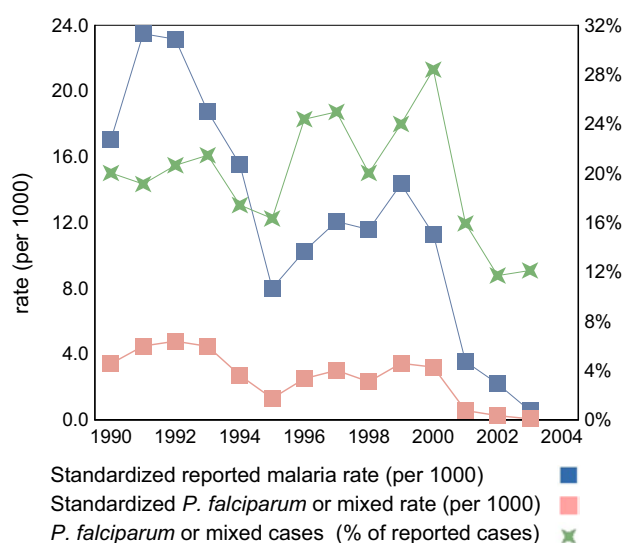
Laboratory confirmed

Malaria cases	10 510
<i>P. falciparum</i> or mixed	1 273
<i>P. vivax</i>	9 237
Severe (inpatient or hospitalized) cases	
Malaria deaths	2

Investigations

Imported cases

Estimated reporting completeness (%)



Reported malaria cases by age and gender

Group	Subgroup	2000	2001	2002	2003	%
Gender	Total	210 039	66 522	41 411	10 510	100
	Male	112 783	35 864	22 400	6 143	58
Age	Female	97 256	30 688	19 011	4 367	42
	<1 year	5 107	2 371	1 589		4
	1-4 years	29 646	10 973	6 944		17
	<5 years				1 750	17
	5-9 years	29 012	7 999	5 630	1 344	13
	10-14 years	27 273	7 297	4 870	1 311	12
	15+ years	119 001	37 882	22 738	6 105	58

Reported malaria cases by selected subnational area

15 of 26 areas	2000	2001	2002	2003	%
Batticaloa	6 639	4 057	6 486	1 467	14
Killinochchi	47 326	21 989	11 447	1 404	13
Anuradhapura	13 218	3 210	2 866	1 213	12
Trincomalee	6 608	1 390	522	1 028	10
Polonnaruwa	4 052	1 657	1 040	935	9
Kalmune				650	6
Mullaitivu	25 099	11 768	6 285	633	6
Kurunegala	11 863	5 648	2 943	632	6
Ampara	3 843	979	1 673	441	4
Jaffna	7 253	1 365	1 891	413	4
Moneragala	40 885	3 705	805	392	4
Vavuniya	8 844	2 345	798	294	3
Ratnapura	6 982	2 821	1 836	248	2
Hambantota	5 319	665	1 084	193	2
Badulla	5 757	1 005	296	132	1

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

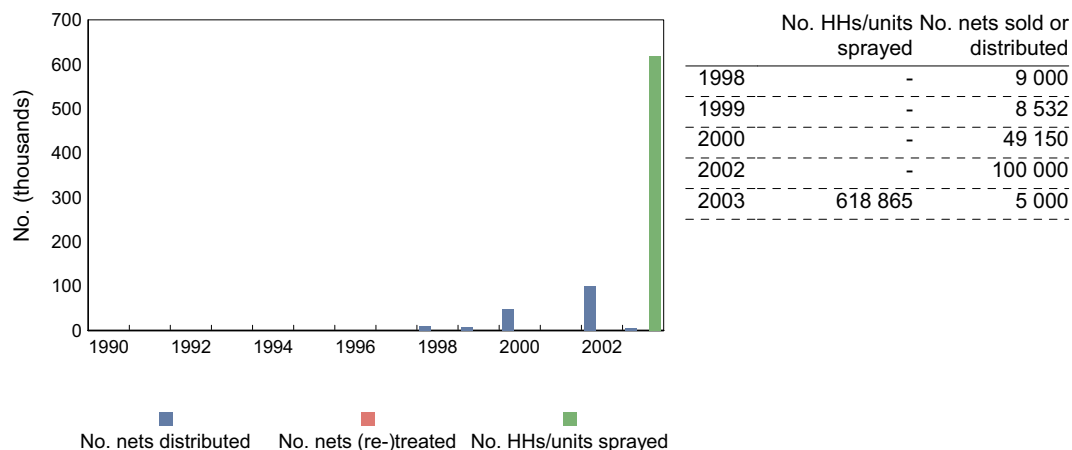
ITNs are one of the key interventions promoted by RBM. Coverage of ITNs is best assessed through household (HH) surveys which ask questions on possession and use of nets, as well as insecticide treatment status, among the target populations of children under 5 years of age (U5) and pregnant women. Data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

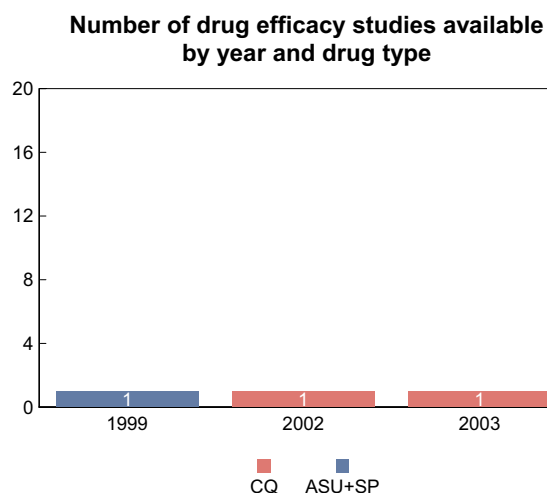
Services delivered for malaria control include numbers of nets and insecticides delivered or sold, numbers of nets (re-)treated with insecticide and numbers of households (HHs)/units sprayed during IRS campaigns. These services and service-related commodities mostly reflect core malaria control activities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



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.

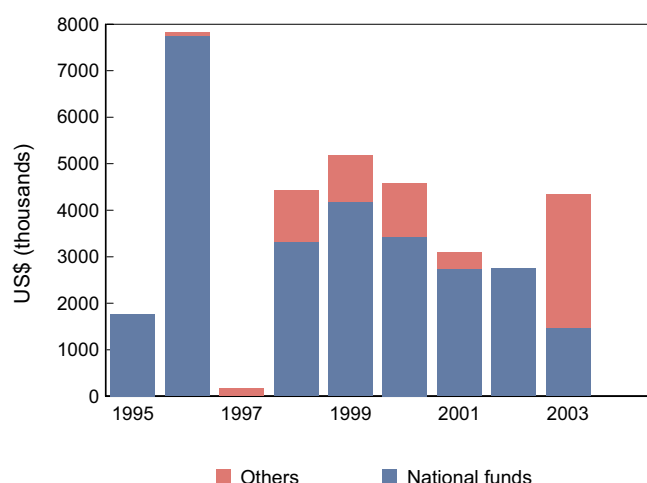
Study years	Number of studies	Median	Range		Percentile	
			Low	High	25th	75th
CQ						
2002-2003	2	31.8	10.0	53.5	10.0	53.5
ASU+SP						
1999	1	0.0				



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	1 775	-
1996	7 742	82
1997	-	164
1998	3 328	1 104
1999	4 187	1 007
2000	3 430	1 155
2001	2 750	358
2002	2 750	-
2003	1 481	2 874
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	1	5 197 620	LJSS	Yes	19-Dec-02	4 467 480	4	3 680 162	82.4%
			MoH	Yes	19-Dec-02	730 140	2	425 559	58.3%
CCM	4	2 203 520		No			-		

General notes and remarks

See explanatory notes at the beginning of the section.