

Overview of malaria control activities and programme progress

Malaria is one of the principal causes of morbidity and mortality in Mali and is responsible for over 30% of outpatient visits. Mali experiences three types of malaria transmission each year: (i) 6 months of seasonal transmission in the south; (ii) 3 months of transmission in the Sahelian area; and (iii) irregular transmission with epidemics in the north.

The national 5-year strategic plan for malaria control from 2001 to 2005 aims to reduce malaria burden by 30% by 2005 and by 50% by 2010. Strategies include: (i) access to prompt and effective treatment; (ii) prevention especially among pregnant women and children under 5 years of age; (iii) epidemic control; (iv) operational research; (v) information, education and communication materials; and (vi) intersectoral collaboration. Many partners are involved, including WHO, UNICEF and several bilateral agencies and NGOs.

Many activities related to the prevention of malaria were recently undertaken. A massive ITN campaign was conducted that included a promotional campaign in health facilities and the participation of NGOs such as NetMark. A national network for the prevention of malaria among pregnant women was created. Educational materials regarding the use of IPT with SP for pregnant women were developed and distributed in 2004.

In 2003–2004, five collaborative workshops were organized in order to revise the national malaria control strategy profile to include new approaches for the distribution of ITNs, a reformulation of the national treatment policy including the introduction of ACTs and a restructuring of the policy for malaria prevention in pregnant women through IPT. ATM+LUM and ASU+SP are the ACTs adopted in the new treatment policy. The NMCP recently established two oversight committees to address availability, forecasting, production and pharmacovigilance for the planned deployment of ACTs. Data for monitoring and evaluation are provided by the national HIS, weekly epidemic surveillance, sentinel sites and research studies by various organizations.

The annual budget for 2003 for the NMCP of US\$ 1.1 million was supplied by the MoH and RBM partners. The GFATM granted an additional US\$ 2.5 million for malaria for 2 years, almost half of which was disbursed in 2004.

National malaria policy and strategy environment

National malaria strategy overview for 2003

	Strategy
Treatment and Diagnosis Guidelines	
Published/updated in	
Monitoring antimalarial drug resistance	Yes
Number of sites currently active	4
Home management of malaria	Yes
Vector control using insecticides	Yes
Monitoring insecticide resistance	
Number of sites currently active	
Insecticide-treated mosquito nets (ITNs)	Yes
Intermittent preventive treatment (IPT)	Yes
Epidemic preparedness	Yes

Current antimalarial drug policy

	Current policy
Uncomplicated malaria	
<i>P. falciparum</i> (unconfirmed)	ATM-LUM*
<i>P. falciparum</i> (lab confirmed)	ATM-LUM*
<i>P. vivax</i>	
Treatment failure	ASU+SP
Severe malaria	Q(7d)
Pregnancy	
Prevention	SP (IPT)
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
248 904	282 256	280 562	295 737	263 100	95 357	29 818	384 907	12 234	530 197
2000	2001	2002	2003	Date of last report: 25 November 2004					
546 634	612 895	723 077	809 428						

Reported malaria by type and quality

For most recent year

Reported malaria cases	809 428
Reported malaria deaths	1 309

Probable or clinically diagnosed

Malaria cases	809 428
Severe (inpatient or hospitalized) cases	
Malaria deaths	1 309

Slides taken

Rapid diagnostic tests (RDTs) taken

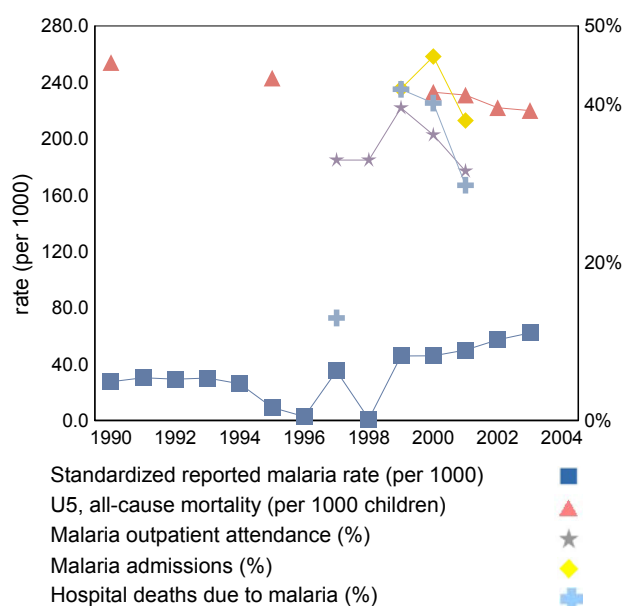
Laboratory confirmed

Malaria cases	
<i>P. falciparum</i> or mixed	
<i>P. vivax</i>	
Severe (inpatient or hospitalized) cases	
Malaria deaths	

Investigations

Imported cases

Estimated reporting completeness (%)



Reported malaria cases by age and gender

Group	Subgroup	2000	2001	2002	2003	%
	Total	546 634	612 895	723 077	809 428	100
Age	<5 years	177 969	211 018	243 390	266 833	33

Reported malaria cases by selected subnational area

2000	2001	2002	2003	%
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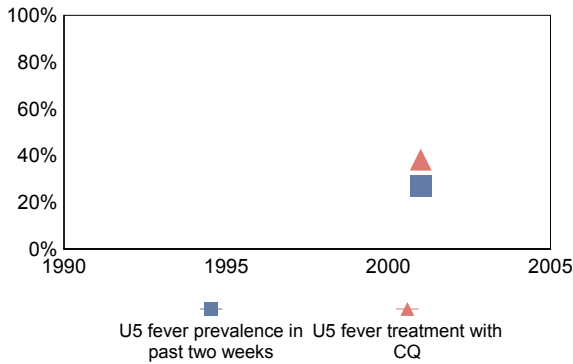
COVERAGE OF ROLL BACK MALARIA INTERVENTIONS

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.

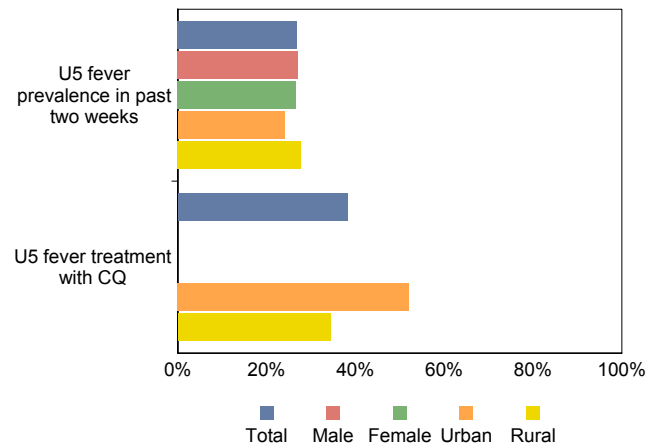
Fever prevalence and treatment with antimalarials

Prompt access to effective treatment is one of the key interventions promoted by RBM. Information presented below is from household surveys on fever prevalence and reported treatment of fever with antimalarials among children under 5 years of age (U5) within the previous 2 weeks.

Trend in fever prevalence and antimalarial coverage estimates from national surveys



Estimate of fever prevalence and treatment with antimalarials from most recent national survey



Available national surveys

DHS 2001

Sample size (U5s): 11 143

Field work: Jan-May 2001

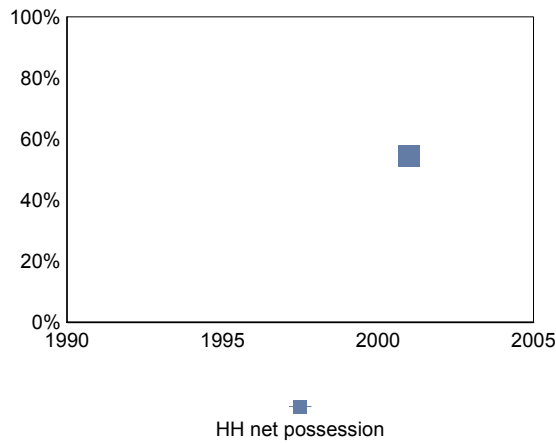
Scale: national

Supporting organization: Macro DHS

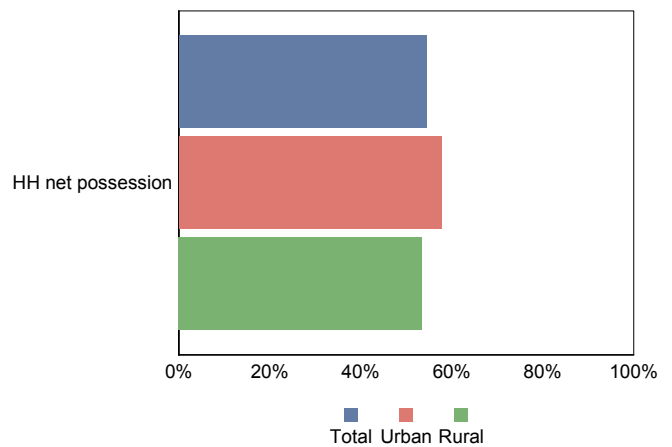
Insecticide-treated nets

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.

Trend in mosquito net coverage estimates from national surveys



Estimates of ITN coverage from most recent national survey



Available national surveys

DHS 2001

Sample size (HHs or U5s): 12 331
Field work: Jan-May 2001
Scale: national

Supporting Organization: Macro DHS

Available sub-national surveys

NetMark 2003

Sample size (HHs or U5s): 1 621
Field work: Jul 2003
Scale: 5 areas: Bamako, Kayes, Segou, Sikasso, Mopti

Supporting Organization: NetMark

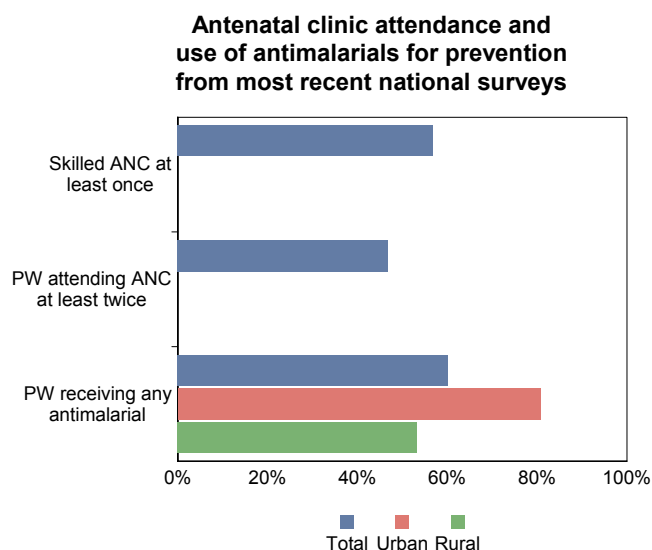
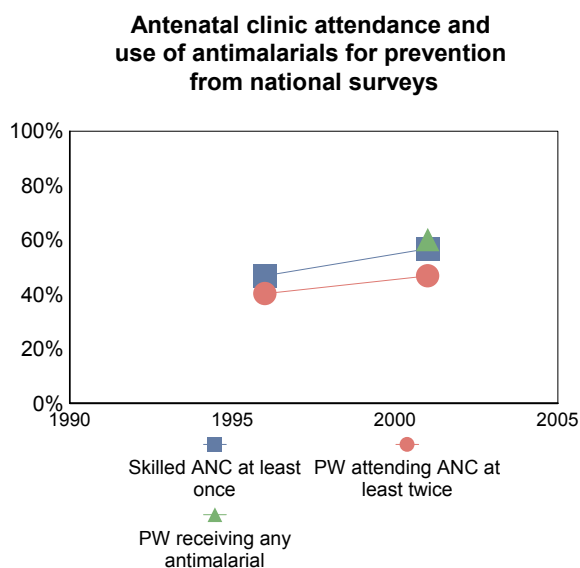
RBM 2003

Sample size (HHs or U5s):
Field work:
Scale: district

Supporting Organization: WHO/AFRO

Intermittent preventive treatment during pregnancy

RBM promotes IPT with SP in countries with areas of stable malaria transmission as one of its key prevention strategies for pregnant women (PW). However, few surveys have assessed the coverage of IPT among pregnant women. Data below represent available household survey results in which indicators related to monitoring IPT have been assessed. The level of skilled antenatal attendance and the percentage of women attending antenatal clinics (ANC) at least twice are presented as a background for which improvements in IPT can be achieved.



Available national surveys

DHS 2001

Sample size (PW): 8 291 Supporting organization: Macro DHS
 Field work: Jan-May 2001
 Scale: national

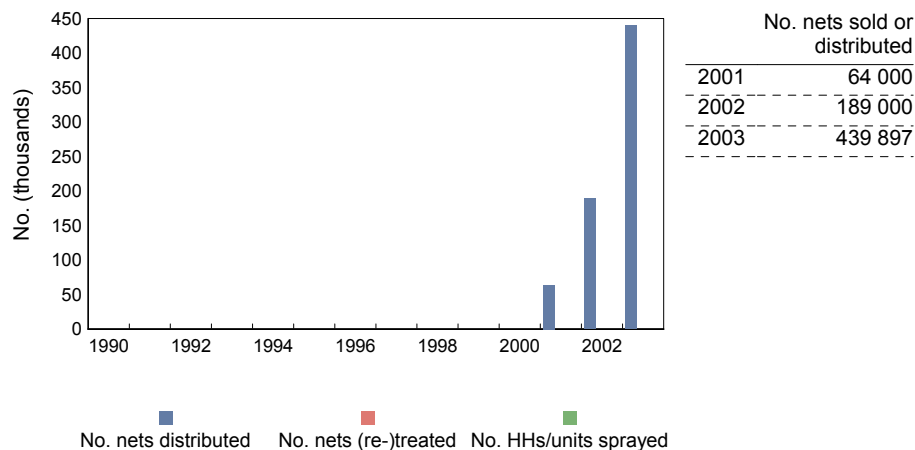
DHS 1995-96

Sample size (PW): 6 019 Supporting organization: Macro DHS
 Field work: Nov 1995-Apr 1996
 Scale: national

SERVICE DELIVERY AND MALARIA-RELATED COMMODITIES

General malaria-related services delivered

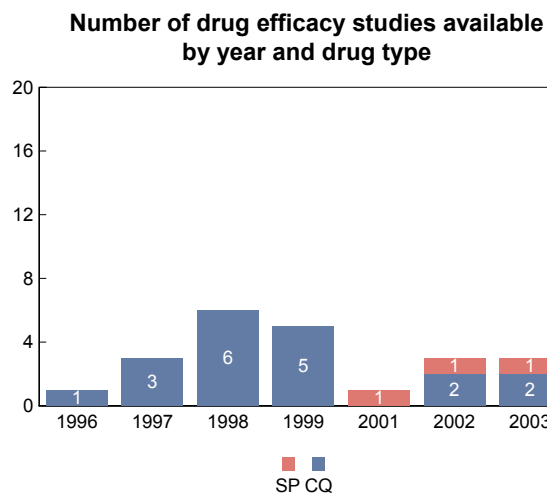
Services delivered for malaria control include numbers of nets and insecticides delivered or sold, numbers of nets (re-)treated with insecticide and numbers of households (HHs)/units sprayed during IRS campaigns. These services and service-related commodities mostly reflect core malaria control activities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

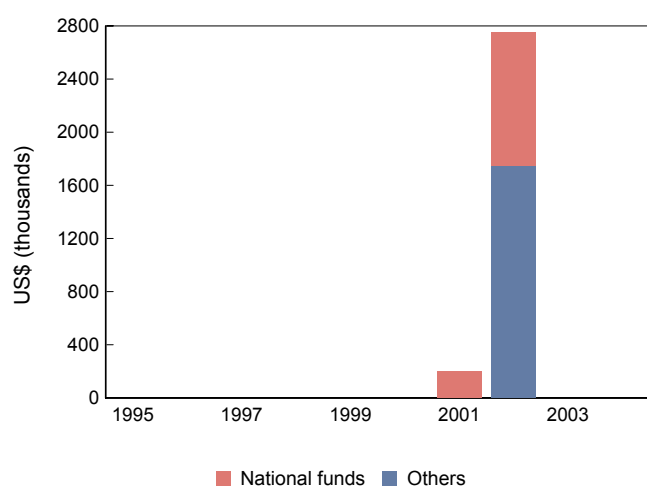
Study years	Number of studies	Median	Range		Percentile	
			Low	High	25th	75th
CQ						
1996-2003	19	11.0	2.0	24.3	4.2	13.0
SP						
2001-2003	3	0.6	0.0	2.0	0.0	2.0



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	-	-
1996	-	-
1997	-	-
1998	-	-
1999	-	-
2000	-	-
2001	202	-
2002	1 007	1 744
2003	-	-
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	2 023 424	MoH	Yes	25-Aug-03	2 023 424	2	945 120	46.7%	

General notes and remarks

See explanatory notes at the beginning of the section.

* policy adopted, not presently being deployed, implementation process ongoing