

MALAWI

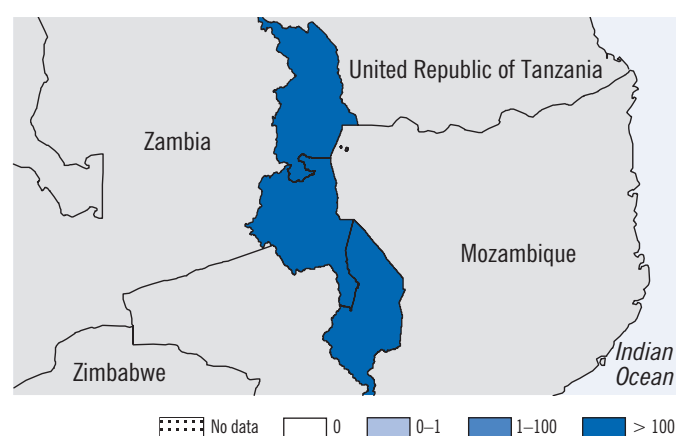
Malaria is endemic in all parts of the country, with seasonal peaks between December and June. The majority of cases are caused by *P. falciparum*, but most suspected cases are not parasitologically tested. The numbers of malaria cases and deaths reported through the surveillance system were either stable or showed an increasing trend. It is not known whether this is due to improved reporting or an increased incidence. The national malaria control programme distributed over 4.5 million ITNs between 2006 and 2008, of which about 1.2 million were LLINs. In the 2006 multiple indicator cluster survey, 38% of households had at least an ITN, and 25% of children under 5 had slept under an ITN the previous night. Only 25% of febrile children under 5 years were treated with any antimalarial medicine. Although ACT was adopted as the recommended method of treatment in 2007, the national malaria control programme did not report delivery of ACT in recent years. Funding for malaria has increased significantly over the past 3 years, reaching a total of US\$ 49 million in 2007 and US\$ 41 million in 2008. Most of the funding was provided by the Global Fund, the United States President's Malaria Initiative and United Nations agencies.

I. EPIDEMIOLOGICAL PROFILE

Population, endemicity and malaria burden

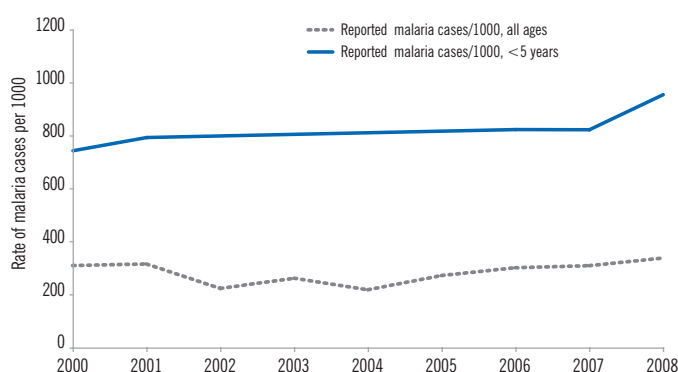
Population (in thousands)	2008	%
All age groups	14 846	
< 5 years	2 591	17
≥ 5 years	12 255	83
Population by malaria endemicity (in thousands)	2008	%
High transmission ≥ 1/1000	14 846	100
Low transmission (0–1/1000)	0	0
Malaria-free (0 cases)	0	0
Rural population	12 061	81
Vector and parasite profiles		
Major <i>Anopheles</i> species	<i>gambiae</i> , <i>funestus</i> , <i>coustani</i> , <i>paludis</i> , <i>pharoensis</i>	
<i>Plasmodium</i> species	<i>falciparum</i> , <i>vivax</i>	

Stratification of burden (reported cases, per 1000)

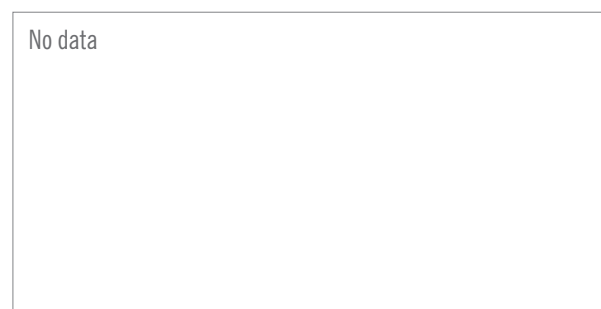


Trends in malaria morbidity and mortality

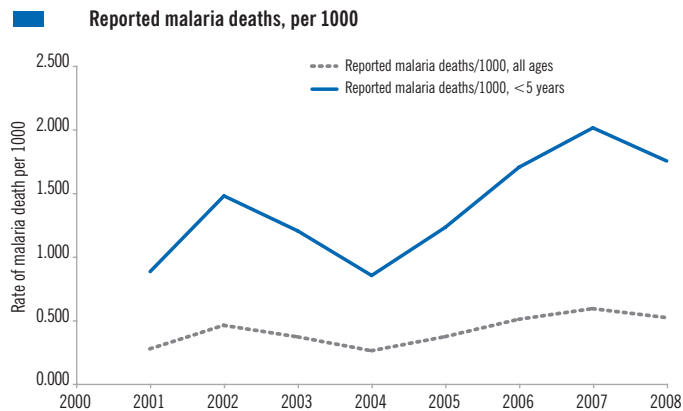
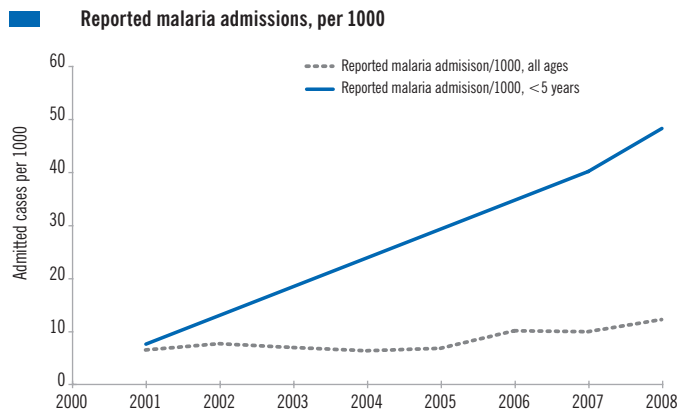
Reported malaria cases, per 1000



Rate of examination, case confirmation, malaria test positivity, % of confirmed cases that are *P. falciparum*



Year	Reported malaria cases, all ages	Reported malaria cases, < 5 years	All-cause outpatient consultations, all ages	All-cause outpatient consultations, < 5 years	Examined	Positive	<i>P. falciparum</i>	Reporting completeness of outpatient health facilities (%)	Reporting completeness of districts (%)
2000	3 646 212	1 658 012							
2001	3 823 796	1 815 628							
2002	2 784 001								
2003	3 358 960								
2004	2 871 098								
2005	3 688 389		15 753 331						
2006	4 204 468	2 065 004	14 014 893						
2007	4 442 197	2 096 425	6 172 195						
2008	4 986 779	2 473 208	10 183 764						



Year	Reported malaria admissions, all ages	Reported malaria admissions, < 5 years	All-cause admissions, all ages	All-cause admissions, < 5 years	Reported malaria deaths, all ages	Reported malaria deaths, < 5 years	All-cause deaths, all ages	All-cause deaths, < 5 years	Reporting completeness of inpatient health facilities (%)	Reporting completeness of districts (%)
2000										
2001	78 862	17 466			3 355	2 027				
2002	96 074				5 775	3 465				
2003	89 406				4 767	2 872				
2004	84 044				3 457	2 074				
2005	92 517				5 070	3 042				
2006	141 710				7 132	4 279				
2007	143 110	102 392	348 980		8 541	5 137				
2008	181 248	125 096	436 272		7 748	4 546				

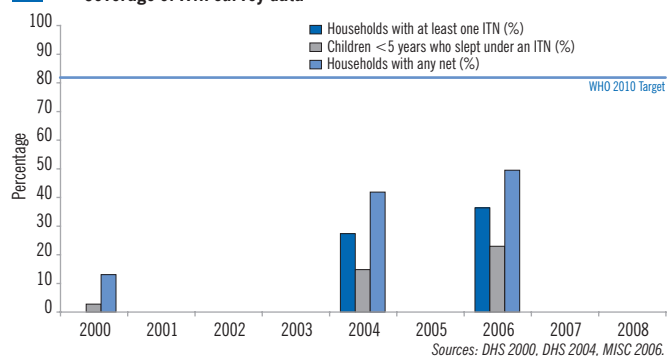
II. INTERVENTION POLICIES AND STRATEGIES

Intervention	WHO-RECOMMENDED POLICIES / STRATEGIES	WHO-RECOMMENDED POLICIES / STRATEGIES		OPTIONAL POLICIES / STRATEGIES	OPTIONAL POLICIES / STRATEGIES	
		Yes or No	Year adopted		Yes or No	Year adopted
Insecticide-treated nets (ITN)	Distribution of ITN/LLINs – Free	Yes	2006	Distribution – Antenatal care	Yes	2002
	Targeting all age groups	Yes	2008	Distribution – EPI routine and campaign	No	–
				Targeting children < 5 years and pregnant women	Yes	2002
				ITN distribution is subsidized	–	–
Indoor residual spraying (IRS)	IRS is a primary vector control intervention	No	–	Insecticide-resistance management implemented	No	–
	DDT is used for IRS (public health) only	No	–	Where IRS is conducted, other options are also implemented, e.g. ITN	Yes	2005
				IRS is used for prevention and control of epidemics	No	–
Intermittent preventive treatment (IPT)	IPT used to prevent malaria during pregnancy	Yes	–			
Case management	Oral artemisinin monotherapies banned (prohibited from registration or removed from the system)	Yes	2006	Parasitological confirmation for patients ≥ 5 years only	–	–
	Parasitological confirmation for patients of all ages	No	–	Malaria diagnosis is free of charge in the public sector	–	–
	ACT is free of charge for < 5 years old in the public sector	Yes	2007	ACT is free of charge for patients ≥ 5 years in the public sector	–	–
	Diagnosis of malaria of inpatients is based on parasitological confirmation	–	–	ACT is delivered at community level through community agents (beyond the health facilities)	–	–
	Pre-referral treatment with quinine or artemether IM or artesunate suppositories	Yes	–	Uncomplicated malaria cases are admitted	–	–
	Oversight regulation of case management in the private sectors	–	–			
	RDTs used at community level	–	–			

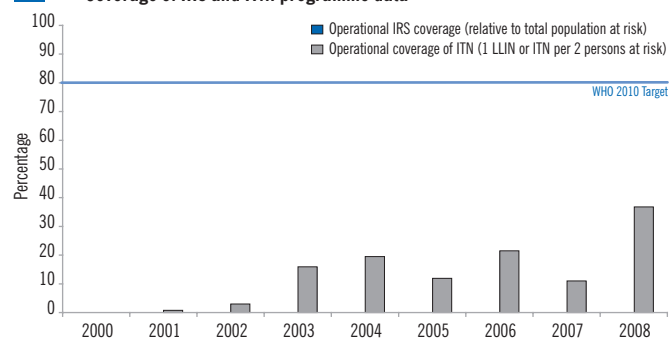
Antimalarial policy	Type of medicine	Year adopted	Results of therapeutic efficacy tests						
			Study year	No. of studies	Median	Minimum	Maximum	Percentiles: 25%	75%
First-line treatment of <i>P. falciparum</i> (unconfirmed)	AL	2007	2005	1	7.1	7.1	7.1	7.1	7.1
First-line treatment of <i>P. falciparum</i> (confirmed)	AL	2007							
Treatment failure of <i>P. falciparum</i>	AS + AQ	2007	2005	2	1.8	0	3.599	0	3.599
Treatment of severe malaria	QN(7d)	2007							
Treatment of <i>P. vivax</i>	–	–							

III. IMPLEMENTING MALARIA CONTROL

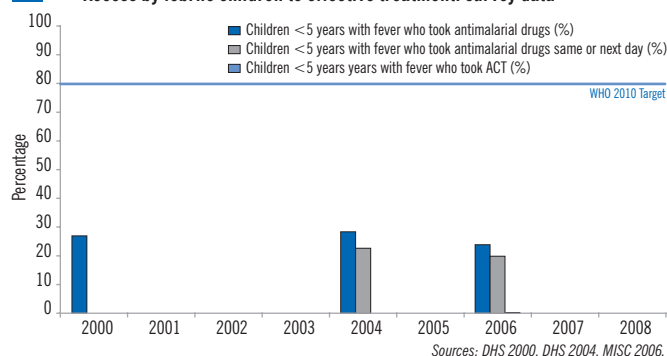
Coverage of ITN: survey data



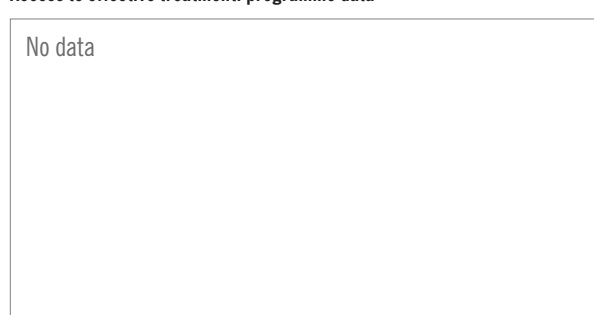
Coverage of IRS and ITN: programme data



Access by febrile children to effective treatment: survey data



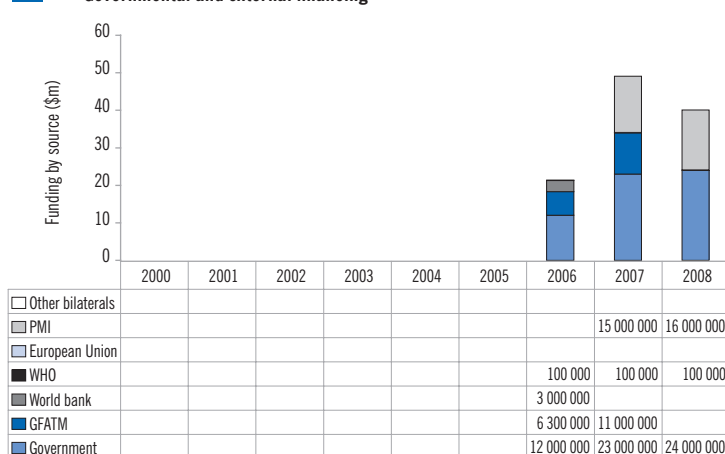
Access to effective treatment: programme data



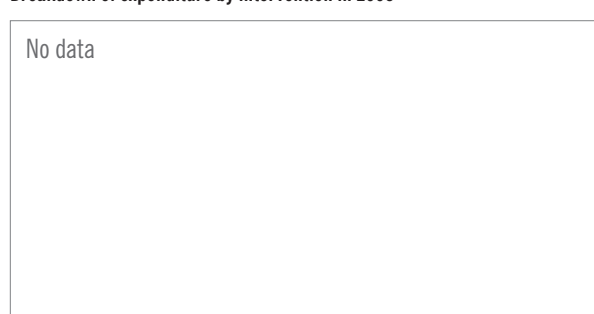
Year	Pregnant women who slept under any net (%)	Pregnant women who slept under an ITN (%)	Children < 5 years with fever (%)	Febrile children < 5 years who sought treatment in HF (%)	Number of households protected by IRS	Number of people protected by IRS	Number of ITNs and/or LLINs	Number of 1st-line treatment courses received	Number of ACT treatment courses received
2000									
2001							46 062		
2002							185 968		
2003							1 029 884		
2004	19	15					1 295 498		
2005							815 620	27 903 000	
2006							1 508 735	27 903 000	
2007							673 238		
2008							2 354 094		

IV. FINANCING MALARIA CONTROL

Governmental and external financing



Breakdown of expenditure by intervention in 2008



V. SOURCE OF INFORMATION

PROGRAMME DATA

Reported cases	Surveillance data
Operational coverage of ITNs, IRS and access to medicines	Programme report
Financial data	Programme report

SURVEY AND OTHER DATA

Insecticide-treated nets (ITN)	DHS 2000, DHS 2004, MICS 2006
Treatment	DHS 2000, DHS 2004, MICS 2006
Use of health services	DHS 2004