

ETHIOPIA

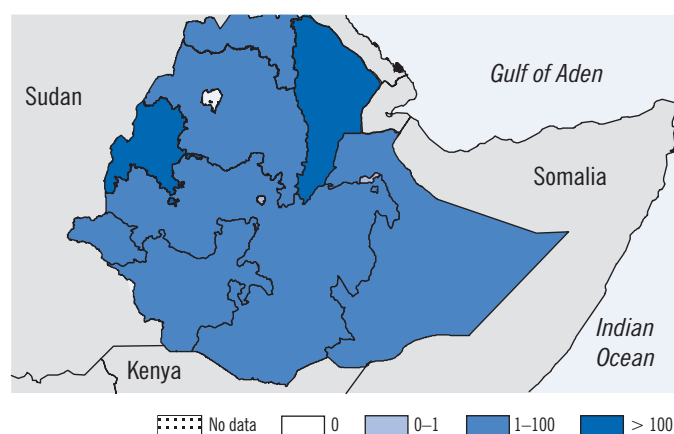
Ethiopia had approximately 4% of all cases in the African Region in 2006. Malaria is present everywhere except in the central highlands. Epidemics are frequent, the last having occurred in 2003–2004. Over half the cases are caused by *P. falciparum*. The number of reported malaria cases decreased from an average of 3.2 million (excluding the epidemic year, 2004) to 2 532 645 in 2008, of which over 986 000 were tested (39%) by either microscopy or a RDT, and 460 000 cases were confirmed. The reported number of malaria deaths in children under 5 years fell from an average of 1866 during 2001–2006 to only 1169 in 2008 (a decrease of over 37%). The programme distributed 19.6 million LLINs between 2006 and 2008, targeting 40 million people at risk. The percentage of households with one ITN increased from 3% nationwide in 2005 to 66% in 2007. IRS was expanded to cover 5.6 million households, protecting 28 million people at risk. Nearly 4 million treatment courses of ACT were delivered in 2007 and 8 million in 2008, which was adequate to cover all reported cases in the public sector. The recent decrease in the number of cases and deaths coincides with rapid expansion of control efforts. Funding increased from US\$ 2.7 million in 2001 to over US\$ 200 million between 2004 and 2007, mainly from the Global Fund and the United States President's Malaria Initiative. The Government provides about US\$ 5 million annually. With the round 8 Global Fund grant, the programme has secured over US\$ 150 million for the next five years.

I. EPIDEMIOLOGICAL PROFILE

Population, endemicity and malaria burden

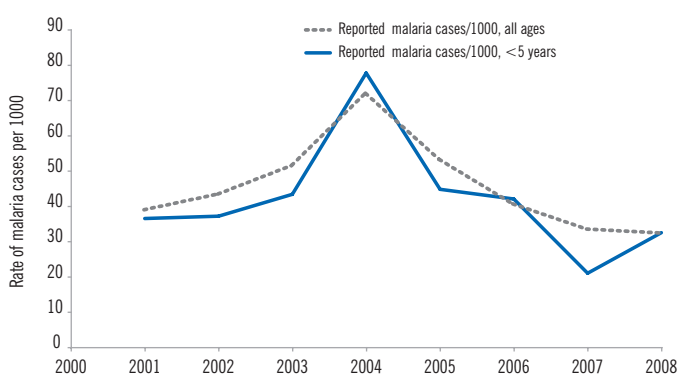
Population (in thousands)	2008	%
All age groups	80 713	
< 5 years	13 323	17
≥ 5 years	67 390	83
Population by malaria endemicity (in thousands)	2008	%
High transmission ≥ 1/1000	1 022	1
Low transmission (0–1/1000)	53 128	66
Malaria-free (0 cases)	26 564	33
Rural population	67 057	83
Vector and parasite profiles		
Major <i>Anopheles</i> species	<i>arabiensis</i> , <i>funestus</i> , <i>coustani</i> , <i>nili</i> , <i>paludis</i> , <i>pharoensis</i> , <i>quadriannulatus</i>	
<i>Plasmodium</i> species	<i>falciparum</i> , <i>vivax</i>	

Stratification of burden (reported cases, per 1000)

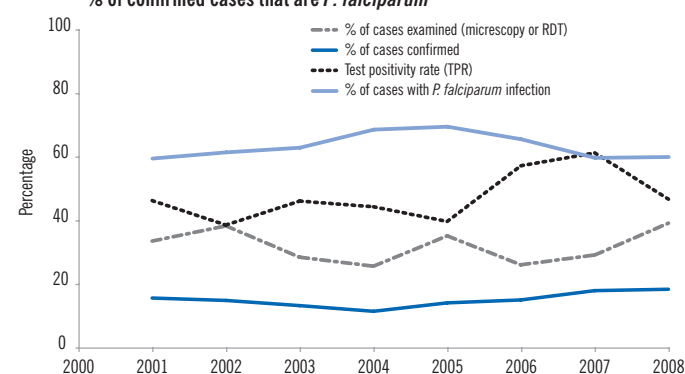


Trends in malaria morbidity and mortality

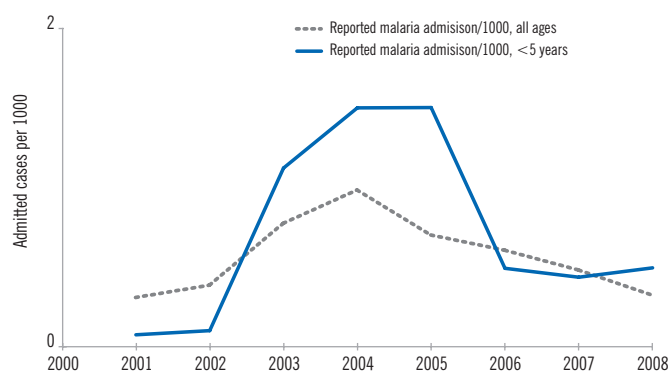
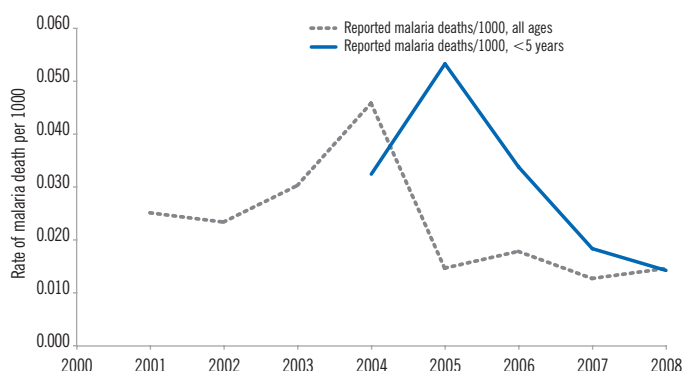
Reported malaria cases, per 1000



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									
2001	2 555 314	428 089	11 097 537		851 942	392 377	233 218		
2002	2 929 685	441 811	10 916 435		1 115 167	427 795	262 623		
2003	3 582 097	522 491	11 660 924		1 010 925	463 797	291 403		
2004	5 170 614	948 587	12 264 096		1 312 422	578 904	396 621		
2005	3 901 957	554 262	14 353 595		1 364 194	538 942	374 335		
2006	3 038 565	528 603	24 620 248		785 209	447 780	293 326		
2007	2 557 152	268 854	24 737 524		739 627	451 816	269 514		
2008	2 532 645	422 248	18 835 927	519 099	986 323	458 561	274 657		

Reported malaria admissions, per 1000

Reported malaria deaths, per 1000


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	20 432	848	225 820		1 681		11 113			
2002	26 343	1 171	223 560		1 607		10 573			
2003	54 654	13 682	303 640		2 138		10 796			
2004	71 341	18 565	299 535		3 327	401	9 242			
2005	52 044	18 880	260 123		1 086	670	6 918			
2006	46 130	6 266	186 245		1 357	432	60 918			
2007	37 546	5 668	209 699		991	239	37 508			
2008	25 739	6 563	381 623	19 870	1 169	189	19 610	948		

II. INTERVENTION POLICIES AND STRATEGIES

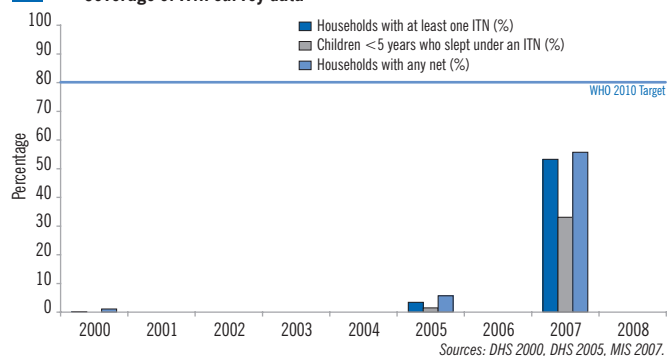
Intervention	WHO-RECOMMENDED POLICIES / STRATEGIES			OPTIONAL POLICIES / STRATEGIES		
		Yes or No	Year adopted		Yes or No	Year adopted
Insecticide-treated nets (ITN)	Distribution of ITN/LLINs – Free	Yes	2004	Distribution – Antenatal care	No	–
	Targeting all age groups	Yes	2004	Distribution – EPI routine and campaign	Yes	2006
				Targeting children < 5 years and pregnant women	Yes	2001
				ITN distribution is subsidized	Yes	2004
Indoor residual spraying (IRS)	IRS is a primary vector control intervention	Yes	1997	Insecticide-resistance management implemented	Yes	1997
	DDT is used for IRS (public health) only	Yes	1998	Where IRS is conducted, other options are also implemented, e.g. ITN	Yes	1997
				IRS is used for prevention and control of epidemics	Yes	1998
Intermittent preventive treatment (IPT)	IPT used to prevent malaria during pregnancy	No	–			
Case management	Oral artemisinin monotherapies banned (prohibited from registration or removed from the system)	Yes	1997	Parasitological confirmation for patients ≥ 5 years only	No	–
	Parasitological confirmation for patients of all ages	Yes	1997	Malaria diagnosis is free of charge in the public sector	Yes	2004
	ACT is free of charge for < 5 years old in the public sector	Yes	2004	ACT is free of charge for patients ≥ 5 years in the public sector	Yes	2004
	Diagnosis of malaria of inpatients is based on parasitological confirmation	Yes	1997	ACT is delivered at community level through community agents (beyond the health facilities)	Yes	2004
	Pre-referral treatment with quinine or artemether IM or artesunate suppositories	Yes	1997	Uncomplicated malaria cases are admitted	No	–
	Oversight regulation of case management in the private sectors	No	–			
	RDTs used at community level	Yes	2004			

Results of therapeutic efficacy tests

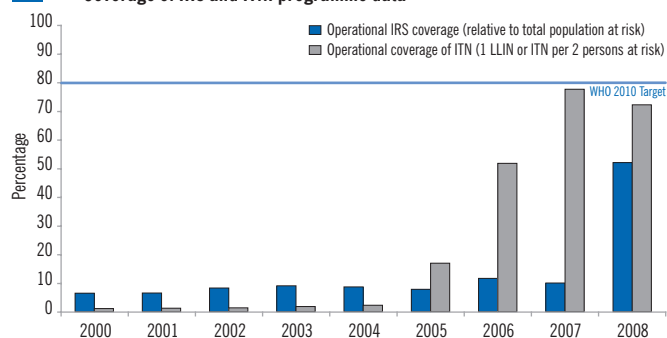
Antimalarial policy	Type of medicine	Year adopted	Study year	No. of studies	Median	Minimum	Maximum	Percentiles: 25%	75%
First-line treatment of <i>P. falciparum</i> (unconfirmed)	AL	2004	2003–2008	8	0	0	3.4	0	2.9
First-line treatment of <i>P. falciparum</i> (confirmed)	AL	2004							
Treatment failure of <i>P. falciparum</i>	QN(7d)	2004							
Treatment of severe malaria	QN(7d)	2004							
Treatment of <i>P. vivax</i>	CQ	2004							

III. IMPLEMENTING MALARIA CONTROL

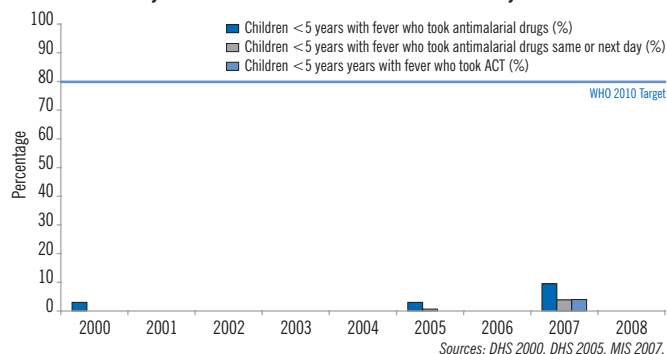
Coverage of ITN: survey data



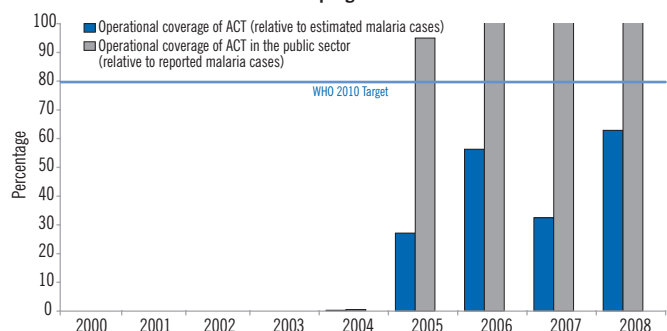
Coverage of IRS and ITN: programme data



Access by febrile children to effective treatment: survey data



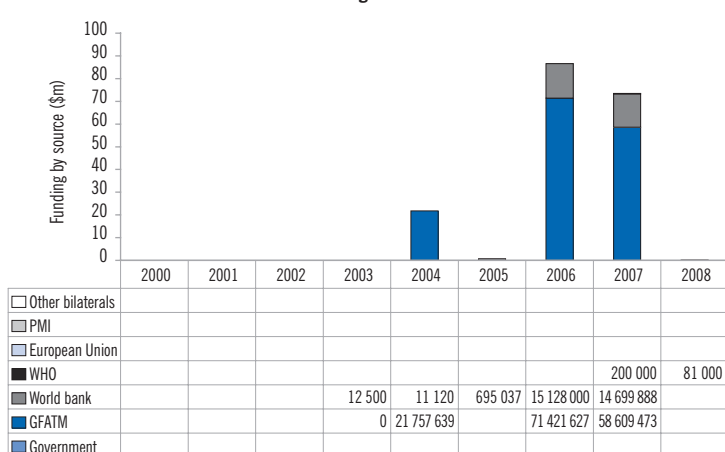
Access to effective treatment: programme data



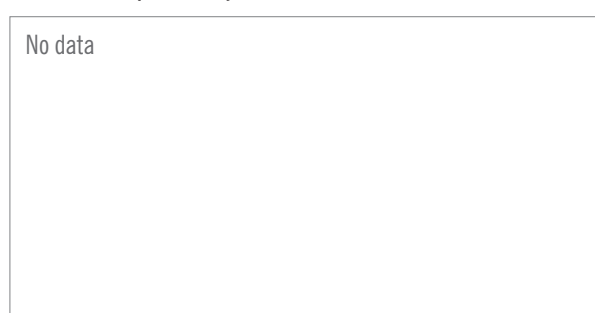
Year	Pregnant women who slept under any net (%)	Pregnant women who slept under an ITN (%)	Children < 5 years with fever (%)	Febrile children < 5 years who sought treatment in HF (%)	Number of households protected by IRS	Number of people protected by IRS	Number of ITNs and/or LLINs	Number of 1st-line treatment courses received	Number of ACT treatment courses received
2000			—	—	568 780	2 843 898	250 000		
2001					711 376	2 960 986	280 000		
2002					768 430	3 826 898	320 000		
2003					517 925	4 298 183	430 000		
2004					521 010	4 228 465	550 000	9 725 000	25 000
2005	2	1	—	—	594 521	3 912 903	4 243 157	3 500 000	3 193 993
2006					702 959	5 984 485	9 070 718	6 950 000	6 806 744
2007	37	35	—	—	2 523 902	5 303 213	7 178 443	5 450 400	4 032 640
2008					5 641 275	28 206 375	3 316 696		8 000 000

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 2005, MIS 2007
Treatment	DHS 2000, DHS 2005, MIS 2007
Use of health services	DHS 1997