

UGANDA

Uganda had an estimated 12 million malaria cases in 2006. Transmission occurs all year round in most parts of the country. On average, 10.7 million malaria cases were reported annually during 2004–2008, with no declining trend. About 20% of the suspected cases were parasitologically tested in 2007. The fluctuating numbers of inpatient malaria cases and deaths reported in 2006–2008, due to inconsistent and incomplete surveillance, do not provide a basis for evaluating incidence trends, although the programme reports show a decrease in cases and deaths between 2005 and 2006. The programme delivered nearly 5.9 million LLINs during 2006–2008. Implementation of IRS, which was started in 2006, covered 500 000 households and protected 1 858 149 people at risk in 2008. Nearly 17 million ACT courses were reportedly delivered in 2007 and another 6.4 million in 2008. In the 2006 demographic and health survey, 22% of households owned an ITN, 13% of children slept under an ITN and 3% of febrile children received ACT. Funding for malaria control exceeded US\$ 40 million in 2008, supported by the Government (US\$ 20 million) and the United States President's Malaria Initiative (US\$ 21 million). Although Global Fund grants were significant during 2004–2006, implementation of the latest grant (round 7) has been delayed.

I. EPIDEMIOLOGICAL PROFILE

Population, endemicity and malaria burden

Population (in thousands)	2008	%
All age groups	31 657	
< 5 years	6 182	20
≥ 5 years	25 475	80

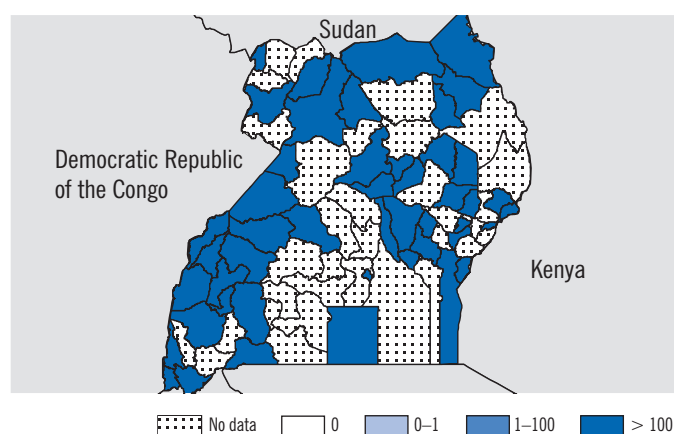
Population by malaria endemicity (in thousands)	2008	%
High transmission ≥ 1/1000	28 491	90
Low transmission (0–1/1000)	3 166	10
Malaria-free (0 cases)	0	0
Rural population	27 555	87

Vector and parasite profiles

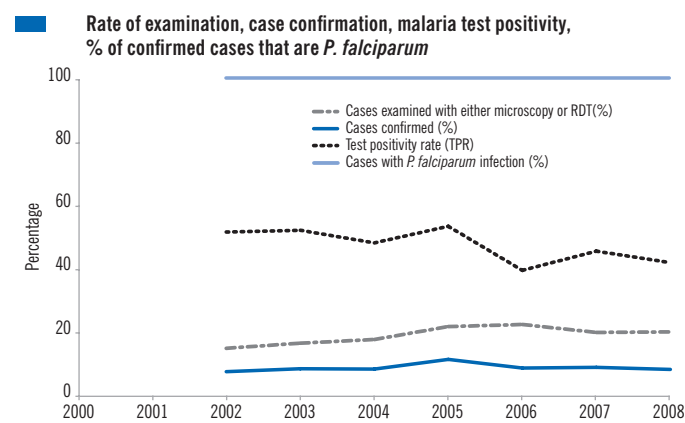
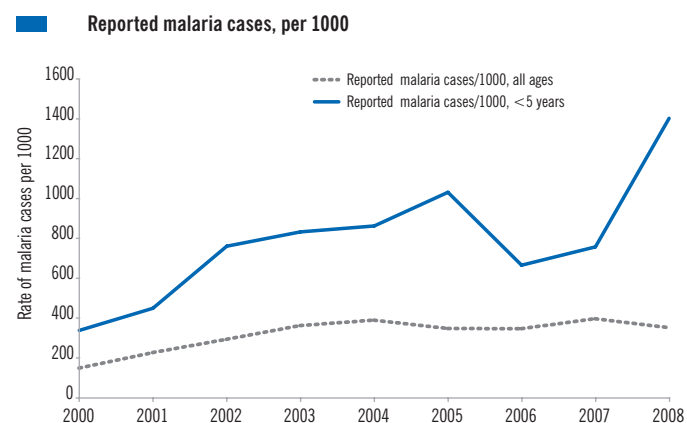
Major *Anopheles* species: *gambiae*, *arabiensis*, *funestus*, *brochieri*, *bwambae*, *coustani*, *hancocki*, *hargreavesi*, *nili*, *paludis*, *pharoensis*, *quadriannulatus*

Plasmodium species: *falciparum*, *vivax*

Stratification of burden (reported cases, per 1000)

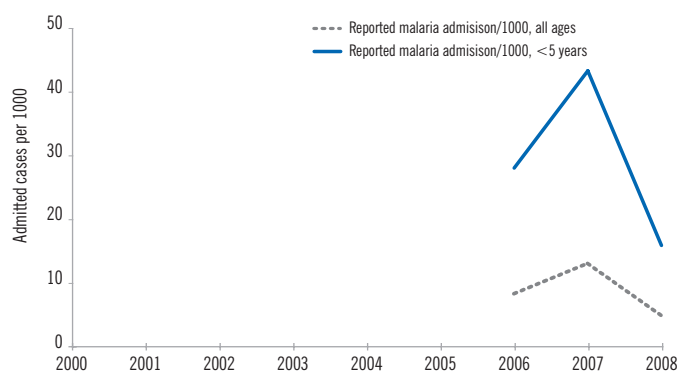


Trends in malaria morbidity and mortality

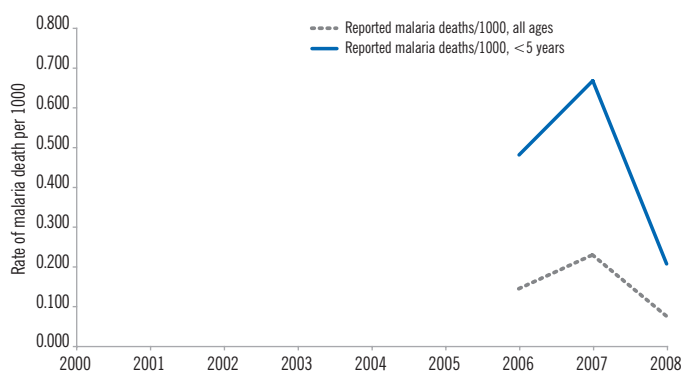


Year	Reported malaria cases, all ages	Reported malaria cases, < 5 years	All-cause outpatient consultations, all ages	All-cause outpatient consultations, < 5 years	Examined	Positive	<i>P. falciparum</i>	Reporting completeness of outpatient health facilities (%)	Reporting completeness of districts (%)
2000	3 552 859	1 628 314	10 502 146	4 266 494					
2001	5 624 032	2 233 435	14 525 591	5 384 241					
2002	7 536 748	3 900 000	15 741 520	5 949 360	1 100 374	557 159	546 016		
2003	9 657 332	4 400 000	20 070 390	7 103 940	1 566 474	801 784	785 748		
2004	10 717 076	4 700 000	22 510 595	7 705 537	1 859 780	879 032	861 451		
2005	9 867 174	5 800 000	23 774 349	8 047 500	2 107 011	1 104 310	1 082 224		
2006	10 168 389	3 857 916	25 250 159	9 645 597	2 238 155	867 398	850 050	62	61
2007	12 038 438	4 528 442	30 187 184	13 935 080	2 350 100	1 050 240	1 029 235	77	63
2008	11 029 571	8 656 327	29 237 275	15 071 475	2 173 072	894 505	876 615	29	67

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										
2002										
2003										
2004										
2005										
2006	245 896	163 041	589 194	317 807	4 252	2 795	13 179	6 762		
2007	399 512	259 679	1 011 407	510 005	7 003	4 002	27 260	11 546		
2008	154 423	98 384	422 078	204 958	2 372	1 279	10 293	4 286		

II. INTERVENTION POLICIES AND STRATEGIES

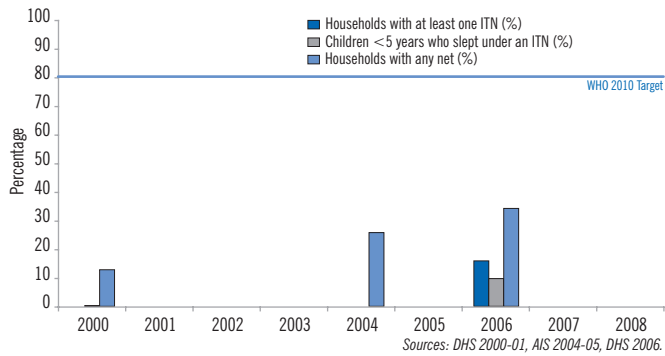
Intervention	WHO-RECOMMENDED POLICIES / STRATEGIES			OPTIONAL POLICIES / STRATEGIES		
		Yes or No	Year adopted		Yes or No	Year adopted
Insecticide-treated nets (ITN)	Distribution of ITN/LLINs – Free	Yes	2006	Distribution – Antenatal care	Yes	2004
	Targeting all age groups	Yes	2008	Distribution – EPI routine and campaign	Yes	2004
				Targeting children < 5 years and pregnant women	Yes	2003
				ITN distribution is subsidized	Yes	2004
Indoor residual spraying (IRS)	IRS is a primary vector control intervention	Yes	2006	Insecticide-resistance management implemented	Yes	2007
	DDT is used for IRS (public health) only	Yes	2008	Where IRS is conducted, other options are also implemented, e.g. ITN	Yes	2006
				IRS is used for prevention and control of epidemics	Yes	2001
Intermittent preventive treatment (IPT)	IPT used to prevent malaria during pregnancy	Yes	2000			
Case management	Oral artemisinin monotherapies banned (prohibited from registration or removed from the system)	Yes	2007	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	2006
	ACT is free of charge for < 5 years old in the public sector	Yes	2006	ACT is free of charge for patients ≥ 5 years in the public sector	Yes	2006
	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	2006
	Pre-referral treatment with quinine or artemether IM or artesunate suppositories	Yes	2002	Uncomplicated malaria cases are admitted	No	–
	Oversight regulation of case management in the private sectors	No	–			
	RDTs used at community level	No	–			

Results of therapeutic efficacy tests

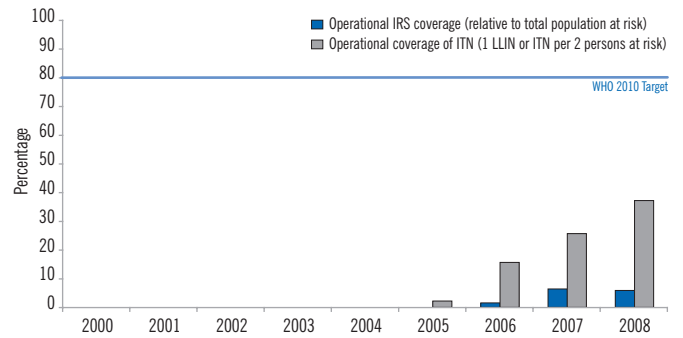
Antimalarial policy	Type of medicine	Year adopted	Study year	No. of studies	Median	Minimum	Maximum	Percentiles: 25%	75%
First-line treatment of <i>P. falciparum</i> (unconfirmed)	AL	2004							
First-line treatment of <i>P. falciparum</i> (confirmed)	AL	2004							
Treatment failure of <i>P. falciparum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

III. IMPLEMENTING MALARIA CONTROL

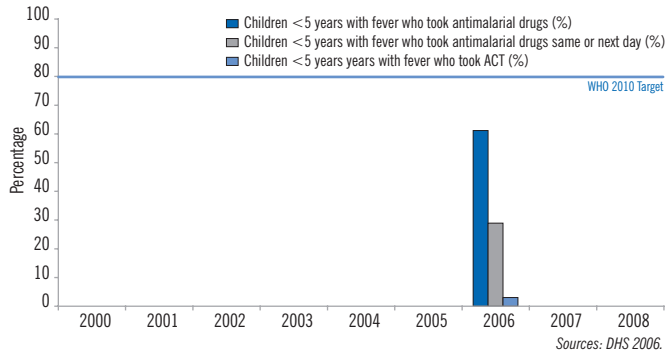
Coverage of ITN: survey data



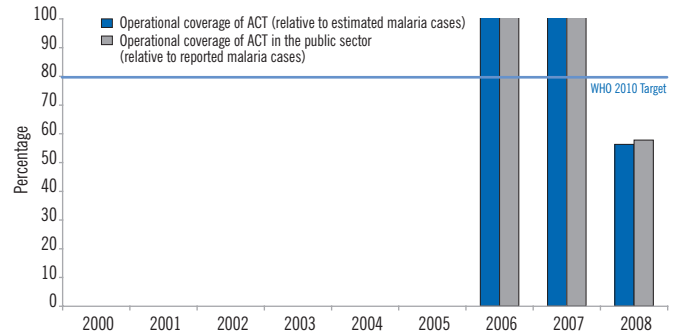
Coverage of IRS and ITN: programme data



Access by febrile children to effective treatment: survey data



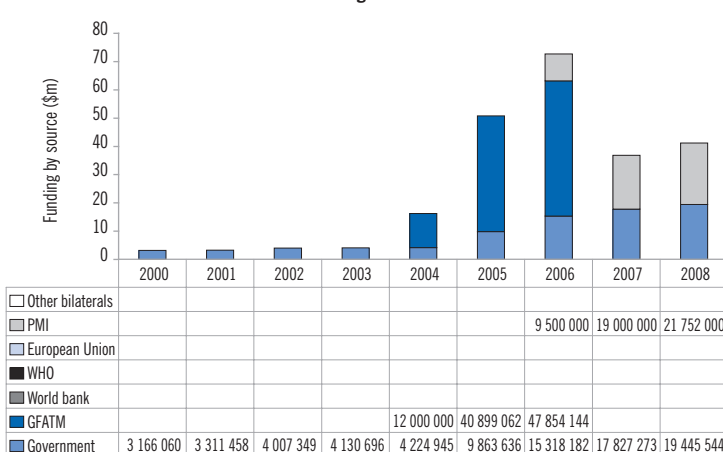
Access to effective treatment: programme data



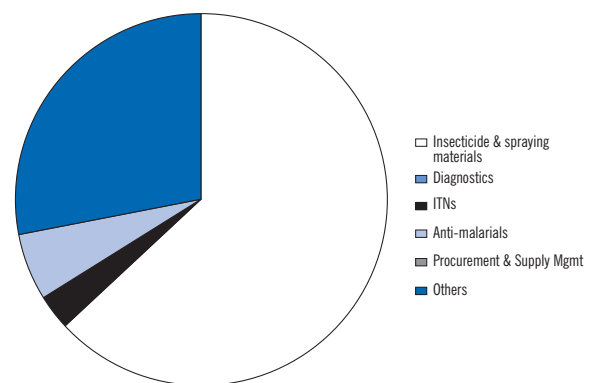
Year	Pregnant women who slept under any net (%)	Pregnant women who slept under an ITN (%)	Children < 5 years with fever (%)	Febrile children < 5 years who sought treatment in HF (%)	Number of households protected by IRS	Number of people protected by IRS	Number of ITNs and/or LLINs	Number of 1st-line treatment courses received	Number of ACT treatment courses received
2000		1	—	—					
2001									
2002									
2003									
2004			—	—					
2005							319 000		
2006	24	10	—	—	103 329	470 000	1 999 449		14 570 670
2007					466 477	1 963 945	1 622 001		16 919 100
2008					499 998	1 858 149	2 273 413		6 389 600

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 2000-01, AIS 2004-05, DHS 2006
Treatment	DHS 2006
Use of health services	DHS 2006