

BANGLADESH

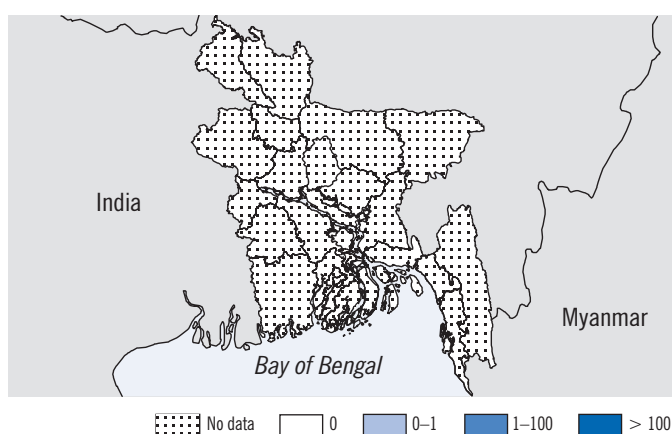
A total of 50.6 million people are at risk for malaria, and more than 95% of all the malaria cases in the country are reported from 13 highly endemic districts, affecting 11 million people. The three Hill Tract Districts (Bandarban, Khagrachari and Rangamati) and the Cox's Bazar district report more than 80% of all malaria cases and deaths every year, with perennial transmission in two peaks, before (March–May) and after the monsoon (September–November). There is no evidence of a systematic decrease in the number of reported cases between 2001 and 2008, and most reported cases are unconfirmed. Of those that are confirmed, more than 70% are due to *P. falciparum*. A total of 154 malaria deaths were reported in 2008, fewer than had been reported in the previous 8 years. Although IRS is the principal mosquito control method, applied selectively in high-risk areas, no data were made available by the programme. The programme delivered nearly 1.9 million ITNs in 2008, of which two thirds were LLINs. The programme adopted ACT as first-line treatment for malaria in 2004 and delivered 225 270 full treatment courses in 2008, enough to treat all confirmed cases. Total financing for malaria in 2008 was approximately US\$ 11 million, the main sources being the Government (US\$ 528 000), the Global Fund (US\$ 9.6 million), the World Bank (US\$ 700 000) and WHO (US\$ 220 000).

I. EPIDEMIOLOGICAL PROFILE

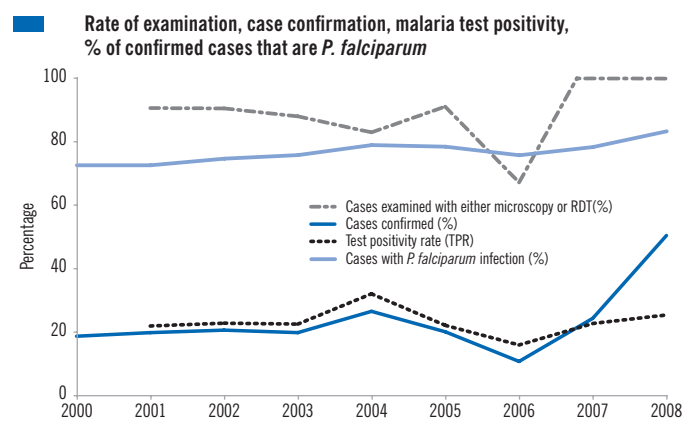
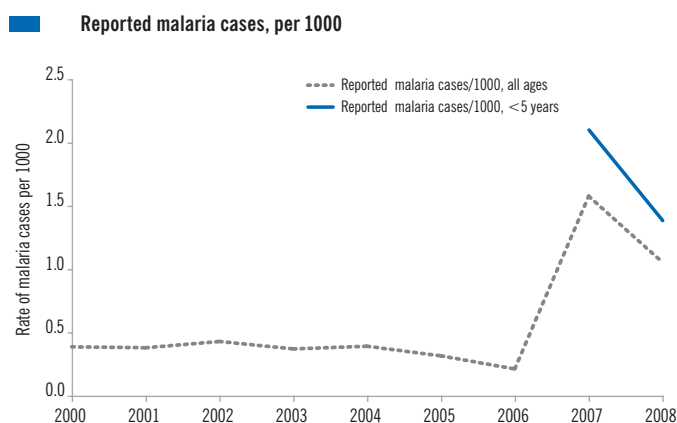
Population, endemicity and malaria burden

Population (in thousands)	2008	%
All age groups	160 000	
< 5 years	16 710	10
≥ 5 years	143 290	90
Population by malaria endemicity (in thousands)		
High transmission ≥ 1/1000	11 649	7
Low transmission (0–1/1000)	42 150	26
Malaria-free (0 cases)	106 201	66
Rural population	116 688	73
Vector and parasite profiles		
Major <i>Anopheles</i> species	<i>dirus, minimus, philippinensis, sundaicus</i>	
<i>Plasmodium</i> species	<i>falciparum, vivax</i>	

Stratification of burden (reported cases, per 1000)



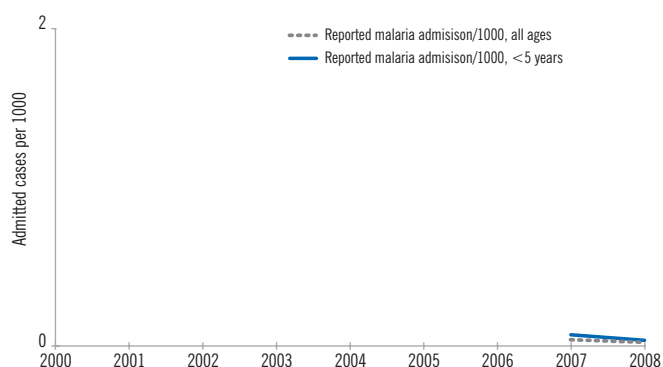
Trends in malaria morbidity and mortality



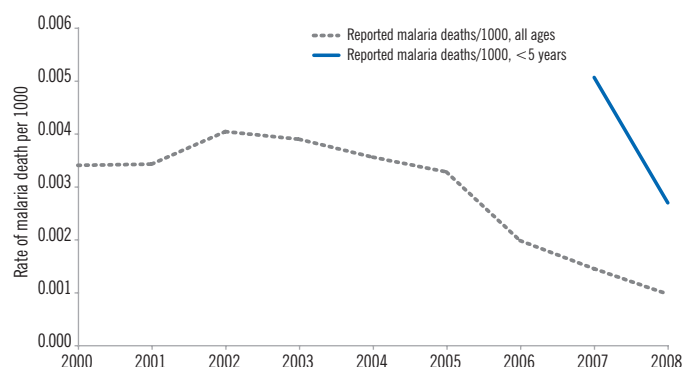
Year	Reported malaria cases, all ages	Reported malaria cases, < 5 years	All-cause outpatient consultations, all ages	All-cause outpatient consultations, < 5 years	Examined	Positive	<i>P. falciparum</i>	Reporting completeness of outpatient health facilities (%)	Reporting completeness of districts (%)
2000	320 011					54 223	39 272		
2001	2 776 477				250 258	54 216	39 274		
2002	2 543 782				275 987	62 269	46 418		
2003	2 554 223				245 258	54 654	41 356		
2004	3 016 262				185 215	58 894	46 402		
2005	1 445 831				220 025	48 121	37 679		
2006	1 320 581				209 991	32 857	24 828		
2007	1 140 424	35 698			270 137	59 857	46 803	100*	100*
2008	1 275 192	23 450			442 506	84 590	70 331	100*	100*

* : This information relates to 13 high endemic districts contributing about 95% of total malaria in the country.

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					478					
2001					490					
2002					588					
2003					577					
2004					535					
2005					501					
2006					307					
2007	5 678	1 173			228	86			100*	100*
2008	3 042	570			154	45			100*	100*

* : This information relates to 13 high endemic districts contributing about 98% of total malaria in the country

II. INTERVENTION POLICIES AND STRATEGIES

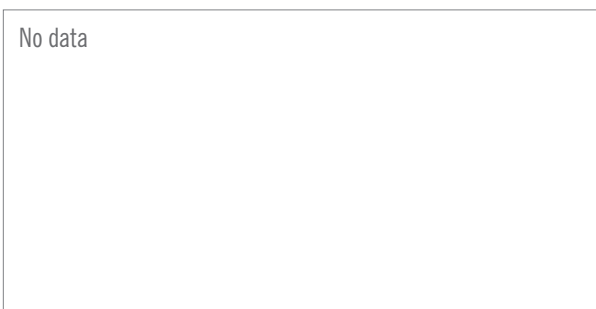
Intervention	WHO-RECOMMENDED POLICIES / STRATEGIES	Yes or No	Year adopted	OPTIONAL POLICIES / STRATEGIES	
				Yes or No	Year adopted
Insecticide-treated nets (ITN)	Distribution of ITN/LLINs – Free	Yes	2008	Distribution – Antenatal care	No –
	Targeting all age groups	Yes	2000	Distribution – EPI routine and campaign	No –
				Targeting children < 5 years and pregnant women	Yes 2000
				ITN distribution is subsidized	No –
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 2000
				IRS is used for prevention and control of epidemics	Yes 2000
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	2004	Parasitological confirmation for patients ≥ 5 years only	No –
	Parasitological confirmation for patients of all ages	Yes	2009	Malaria diagnosis is free of charge in the public sector	Yes 2000
	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	2000	ACT is delivered at community level through community agents (beyond the health facilities)	Yes 2008
	Pre-referral treatment with quinine or artemether IM or artesunate suppositories	No	–	Uncomplicated malaria cases are admitted	No –
	Oversight regulation of case management in the private sectors	No	–		
	RDTs used at community level	Yes	2008		

Results of therapeutic efficacy tests

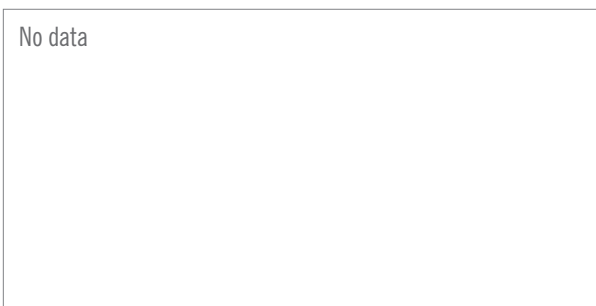
Antimalarial policy	Type of medicine	Year adopted	Study year	No. of studies	Median	Minimum	Maximum	Percentiles: 25% 75%	
First-line treatment of <i>P. falciparum</i> (unconfirmed)	CQ+PQ	2004							
First-line treatment of <i>P. falciparum</i> (confirmed)	AL	2004	2003–2007	2	0.45	0	0.899	0	0.899
Treatment failure of <i>P. falciparum</i>	QN + D, QN + T, QN + T or D	2004							
Treatment of severe malaria	AM, QN	2004							
Treatment of <i>P. vivax</i>	CQ + PQ(14d)	2004							

III. IMPLEMENTING MALARIA CONTROL

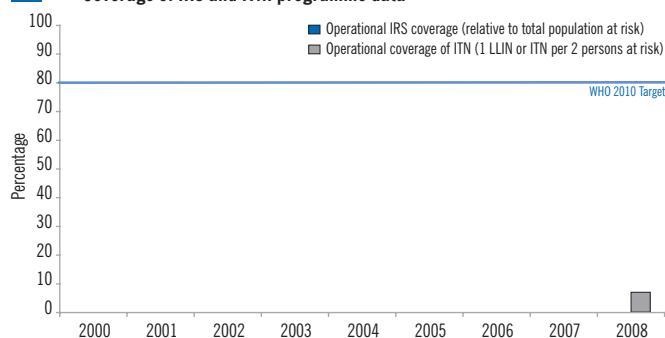
Coverage of ITN: survey data



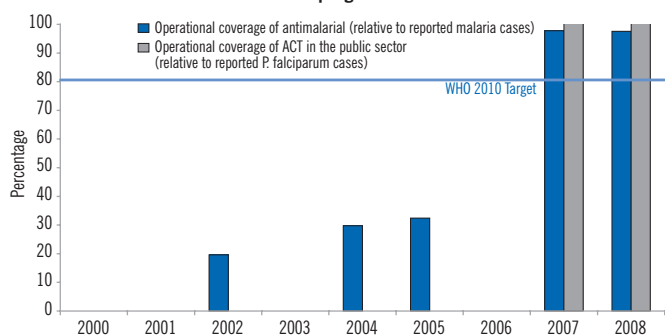
Access by febrile children to effective treatment: survey data



Coverage of IRS and ITN: programme data



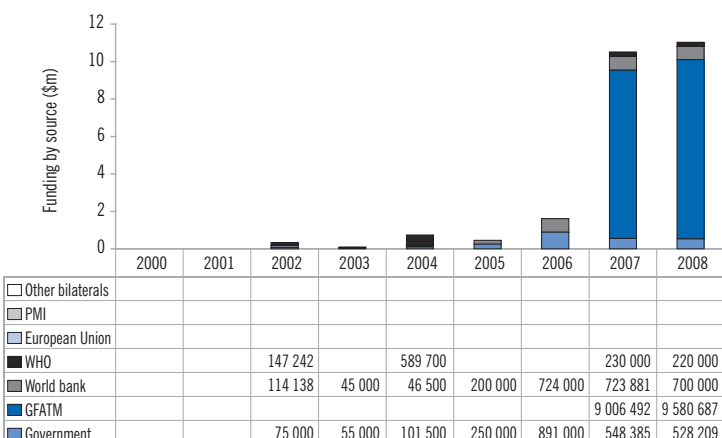
Access to effective treatment: programme data



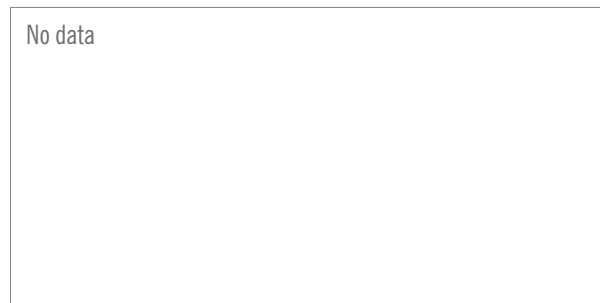
Year	Pregnant women who slept under any net (%)	Pregnant women who slept under an ITN (%)	Children < 5 years with fever (%)	Febrile children < 5 years who sought treatment in HF (%)	Number of households protected by IRS	Number of people protected by IRS	Number of ITNs and/or LLINs	Number of 1st-line treatment courses received	Number of ACT treatment courses received
2000									
2001									
2002								60 000	
2003									
2004								66 615	
2005								78 401	
2006							2 200		
2007								241 398	114 990
2008							1 863 940	164 394	225 270

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)	No surveys
Treatment	No surveys
Use of health services	DHS 2004