

## Overview of malaria control activities and programme progress

Malaria transmission in Iraq is classified by areas free of malaria, areas with sporadic transmission and areas with continuous transmission. Continuous transmission is primarily confined to six governates— five in northern Iraq and Basrah in the south— and the primary objectives are to limit morbidity and mortality through disease management and individual protection. The situation in Iraq has caused numerous difficulties and constraints in carrying out effective malaria control. In 2003, these constraints included a complete disruption and break down of the health infrastructure, destruction of buildings that were used for malaria control both at central and peripheral levels, and loss or damage of malaria related supplies. Further difficulties were faced with lack of communication, transportation and security, as well as uncontrolled population movement and new settlements.

To restart control activities, a rapid assessment was conducted to determine whether local control efforts and activities were being implemented. The assessment found that great disruption in planned activities had occurred and several corrective measures were taken including: (i) rehabilitating the malaria sections of buildings; (ii) procuring necessary supplies and equipment; (iii) implementing four training courses; (iv) strengthening surveillance and feedback mechanisms; (v) conducting the second round of residual insecticide spraying; (vi) rehabilitating entomology laboratories; (vii) establishing a condensed mechanism of supervision and monitoring; and (viii) reproducing and redistributing relevant malaria guidelines.

Additional challenges include inadequate human resources for vector control, shortage of supplies necessary for malaria diagnosis and entomological investigation and difficulties with mobilizing allocated resources and new staff. The NMCP implements a range of control strategies based on the global RBM strategies including: (i) case management—early diagnosis and prompt and effective treatment; (ii) vector control—adult and larval; (iii) information, education and communication materials; (iv) training; (v) epidemic forecasting and preparedness; (vi) operational research; and (vii) monitoring, evaluation and supervision.

Regarding case management, the control programme follows strict regulations that ensure that every primary health centre possesses lab facilities and every suspected patient is given a blood smear test for parasite detection. Regarding vector control activities, the control programme established 10 stations for vector monitoring in each governate—190 stations throughout the country—which study predominant vector species, vector density and other characteristics, as well as susceptibility to various insecticides. In addition, the NMCP implements expanded spraying campaigns every year—in two rounds—based on reporting of indigenous malarious cases or increase in vector density.

### National malaria policy and strategy environment

#### National malaria strategy overview for 2003

	Strategy
<b>Treatment and Diagnosis Guidelines</b> Published/updated in	Yes
<b>Monitoring antimalarial drug resistance</b> Number of sites currently active	NA
<b>Home management of malaria</b>	No
<b>Vector control using insecticides</b>	Yes
<b>Monitoring insecticide resistance</b> Number of sites currently active	No
<b>Insecticide-treated mosquito nets (ITNs)</b>	Yes
<b>Intermittent preventive treatment (IPT)</b>	NA
<b>Epidemic preparedness</b>	Yes

#### Current antimalarial drug policy

	Current policy
<b>Uncomplicated malaria</b>	
<i>P. falciparum</i> (unconfirmed)	all confirmed
<i>P. falciparum</i> (lab confirmed)	
<i>P. vivax</i>	CQ+PQ(14d)
<b>Treatment failure</b>	
<b>Severe malaria</b>	
<b>Pregnancy</b>	
Prevention	
Treatment	

## 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
3 924	1 764	5 752	49 863	98 243	98 705	49 840	13 959	9 684	4 143
2000	2001	2002	2003	Date of last report: 15 December 2004					
1 860	1 265	952	307						

### Reported malaria by type and quality

For most recent year

Reported malaria cases	307
Reported malaria deaths	0

#### Probable or clinically diagnosed

Malaria cases	0
Severe (inpatient or hospitalized) cases	0
Malaria deaths	0
Slides taken	581 938
Rapid diagnostic tests (RDTs) taken	0

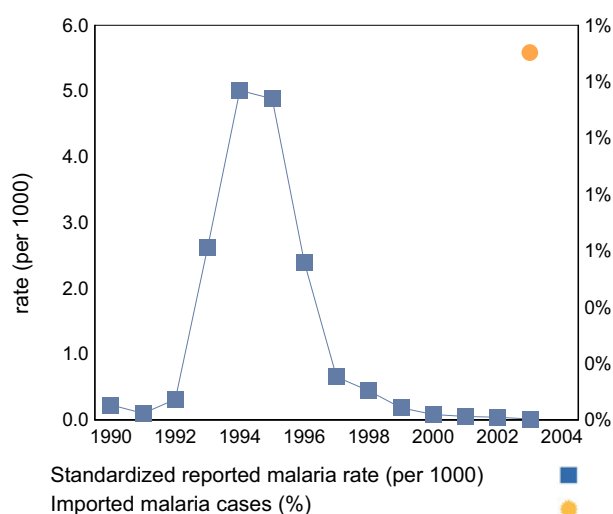
#### Laboratory confirmed

Malaria cases	307
<i>P. falciparum</i> or mixed	0
<i>P. vivax</i>	307
Severe (inpatient or hospitalized) cases	0
Malaria deaths	0

#### Investigations

Imported cases	4
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Estimated reporting completeness (%) 90



### Reported malaria cases by age and gender

Group	Subgroup	2000	2001	2002	2003	%
	Total	1 860	1 265	952	307	100
Gender	Male				25	8
	Female				9	3
Age	<5 years			6	1	0
	5> years			18	33	11

### Reported malaria cases by selected subnational area

15 of 18 areas	2000	2001	2002	2003	%
Dohuk	482	825	644	165	54
Sulimaniya	141	188	64	65	21
Erbil	82	67	129	43	14
Kirkuk	173	33	27	17	6
Dialah	27	5	16	5	2
Baghdad	121	21	4	5	2
Ninewa	345	59	27	2	1
Najaf	13	5	3	2	1
Theqar	54	6	3	1	<1
Kerbela	13	14	3	1	<1
Babel	71	4	1	1	<1
Misan	2	0	0	0	
Basrah	242	27	26	0	
Salahdin	42	6	2	0	
Muthana	2	1	2	0	

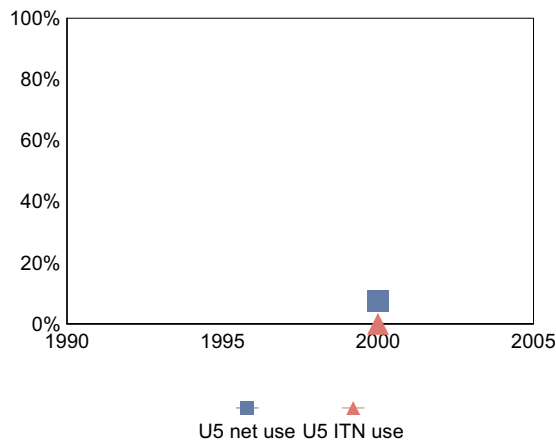
## COVERAGE OF ROLL BACK MALARIA INTERVENTIONS

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.

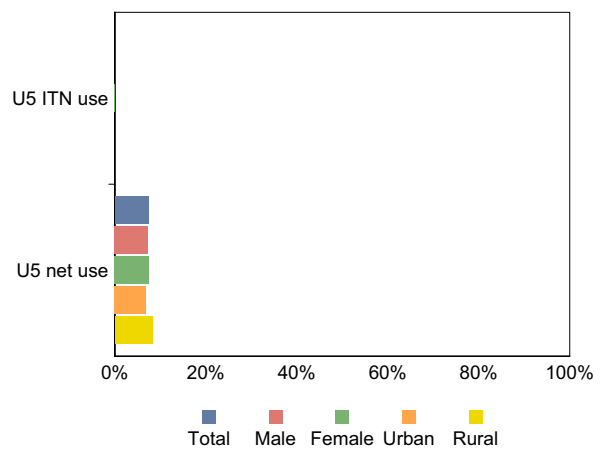
### Insecticide-treated nets

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

##### MICS 2000

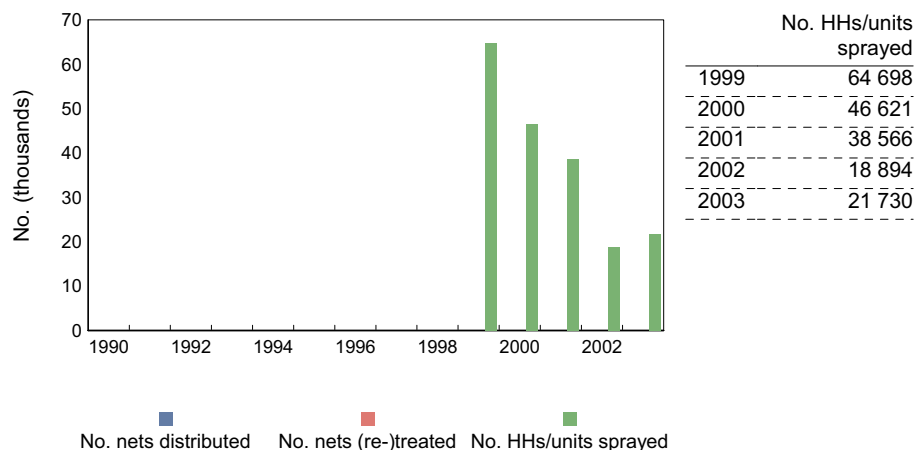
Sample size (HHs or U5s): 14 544  
 Field work: Sep-Oct 2000  
 Scale: national

Supporting Organization: UNICEF

## 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.

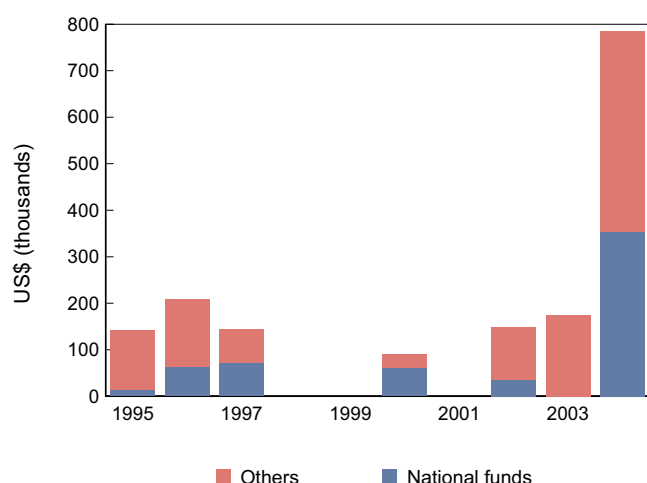
*No studies on the efficacy of antimalarial drugs are currently available or there is no reported P. falciparum transmission.*

*No specific study was done in Iraq because there is only Plasmodium vivax transmission.*

## 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	13	129
1996	64	145
1997	72	72
1998	-	-
1999	-	-
2000	60	30
2001	-	-
2002	35	113
2003	-	175
2004	355	430

### 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.

*No funding was approved for malaria control by the GFATM.*

### General notes and remarks

See explanatory notes at the beginning of the section.

Reported malaria by age and gender for 2002 and 2003 do not include the Kurdistan region, where no information is available.