

Overview of malaria control activities and programme progress

The malaria situation in Bangladesh is worsening, particularly in the hilly and forested areas in the Hill Tract Districts and also along the border areas in 13 high endemic districts with reported CQ and SP resistance. The MoH has revised the malaria treatment regimen with the introduction of ACT in the reported drug resistant areas. Surveillance is weak in these areas as a result of difficult terrain and inaccessibility. There is shortage of staff and doctors in health facilities. With RBM support, a strategy for encouraging the distribution and use of ITNs was initiated in the three Hill Tract Districts, with community (re-)treatment campaigns, which has shown encouraging results.

Challenges exist with establishing links with the private sector, especially regarding surveillance and treatment of malaria cases. Private doctors treat about 30–40% cases in the hilly areas, and no mechanism is in place to assess their skills or to monitor the quality of diagnosis and care and treatment. Monitoring of access to quality antimalarial medicines available from private practitioners, local pharmacies and shops is also of concern. An estimated 1.2 million additional ITNs are required in the 13 high endemic districts to attain good coverage.

Many problems and constraints exist for the programme including: (i) lack of trained staff particularly as a result of retirement of experienced eradication staff; (ii) weak surveillance, supervision and monitoring at various levels of programme implementation; and (iii) increasing drug resistance in high endemic areas, especially the CHT districts.

National malaria policy and strategy environment

National malaria strategy overview for 2003

| | Strategy |
|---|----------|
| Treatment and Diagnosis Guidelines | Yes |
| Published/updated in | 2002 |
| Monitoring antimalarial drug resistance | Yes |
| Number of sites currently active | 4 |
| Home management of malaria | NA |
| Vector control using insecticides | Yes |
| Monitoring insecticide resistance | Yes |
| Number of sites currently active | 5 |
| Insecticide-treated mosquito nets (ITNs) | Yes |
| Intermittent preventive treatment (IPT) | NA |
| Epidemic preparedness | Yes |

Current antimalarial drug policy

| | Current policy |
|--------------------------------------|----------------|
| Uncomplicated malaria | |
| <i>P. falciparum</i> (unconfirmed) | CQ+PQ |
| <i>P. falciparum</i> (lab confirmed) | ATM-LUM |
| <i>P. vivax</i> | CQ+PQ(14d) |
| Treatment failure | Q(7d) |
| Severe malaria | Q(7d) |
| Pregnancy | |
| Prevention | NA |
| Treatment | CQ or Q |

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 |
|--------|--------|---------|---------|-------------------------------------|---------|---------|--------|--------|--------|
| 53 875 | 63 578 | 115 660 | 125 402 | 166 564 | 152 729 | 100 864 | 68 594 | 60 023 | 63 738 |
| 2000 | 2001 | 2002 | 2003 | Date of last report: 1 October 2004 | | | | | |
| 55 599 | 55 646 | 55 646 | 56 879 | | | | | | |

Reported malaria by type and quality

For most recent year

| | |
|-------------------------|--------|
| Reported malaria cases | 56 879 |
| Reported malaria deaths | 574 |

Probable or clinically diagnosed

| | |
|--|---------|
| Malaria cases | 434 723 |
| Severe (inpatient or hospitalized) cases | |
| Malaria deaths | 1 250 |
| Slides taken | 434 723 |
| Rapid diagnostic tests (RDTs) taken | |

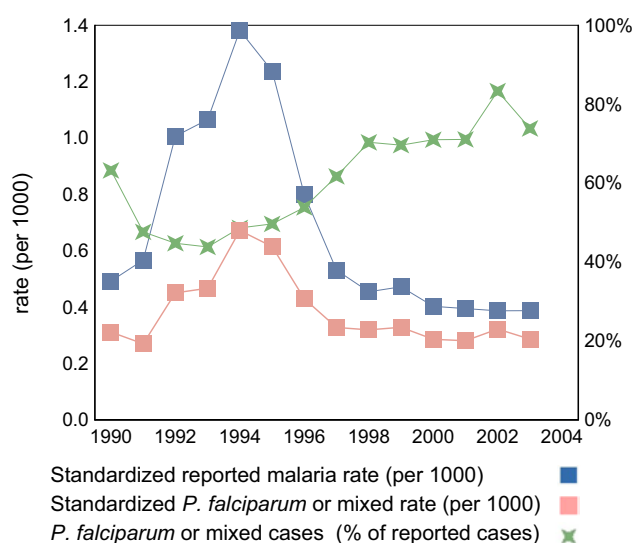
Laboratory confirmed

| | |
|--|--------|
| Malaria cases | 56 879 |
| <i>P. falciparum</i> or mixed | 42 012 |
| <i>P. vivax</i> | 14 867 |
| Severe (inpatient or hospitalized) cases | 10 332 |
| Malaria deaths | 574 |

Investigations

Imported cases

Estimated reporting completeness (%)



Reported malaria cases by age and gender

| Group | Subgroup | 2000 | 2001 | 2002 | 2003 | % |
|--------|------------|--------|--------|--------|--------|-----|
| | Total | 55 599 | 55 646 | 55 646 | 56 879 | 100 |
| Gender | Male | 30 540 | 30 561 | 34 987 | 31 298 | 55 |
| | Female | 24 988 | 25 005 | 28 627 | 25 581 | 45 |
| Age | <1 year | 2 221 | 2 222 | 2 544 | | 5 |
| | 1-4 years | 7 218 | 7 223 | 8 269 | | 15 |
| | <5 years | | | | 9 669 | 17 |
| | 5-14 years | 16 658 | 16 669 | 19 084 | 7 662 | 13 |
| | 15+ years | 29 431 | 29 452 | 33 717 | 13 567 | 24 |

Reported malaria cases by selected subnational area

| 5 areas | 2000 | 2001 | 2002 | 2003 | % |
|------------|--------|--------|--------|--------|----|
| Chittagong | 54 077 | 54 077 | 62 592 | 54 939 | 97 |
| Dhaka | 1 406 | 1 406 | 959 | 873 | 2 |
| Rajshahi | 57 | 80 | 51 | 46 | <1 |
| Khulna | 32 | 56 | 22 | 26 | <1 |
| Barisal | 27 | 27 | 0 | 25 | <1 |

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

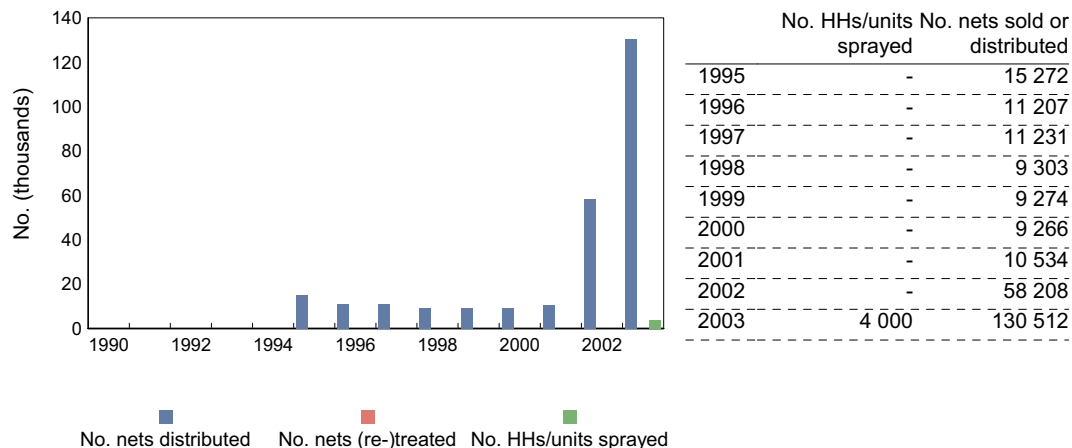
ITNs are one of the key interventions promoted by RBM. Coverage of ITNs is best assessed through household (HH) surveys which ask questions on possession and use of nets, as well as insecticide treatment status, among the target populations of children under 5 years of age (U5) and pregnant women. Data below represent available household survey results in which household possession and use of nets and ITNs have been assessed.

No survey-based estimates of mosquito net or ITN coverage are currently available.

SERVICE DELIVERY AND MALARIA-RELATED COMMODITIES

General malaria-related services delivered

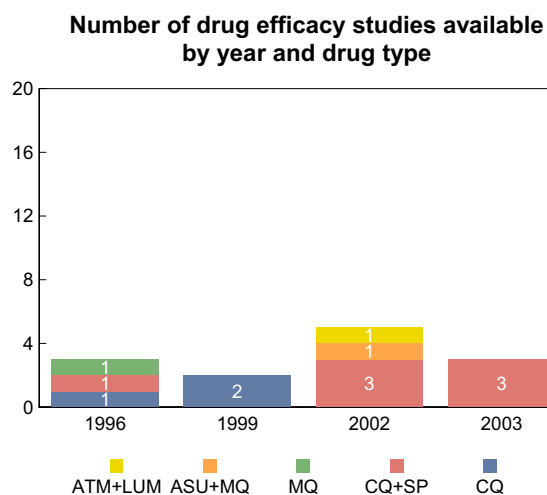
Services delivered for malaria control include numbers of nets and insecticides delivered or sold, numbers of nets (re-)treated with insecticide and numbers of households (HHs)/units sprayed during IRS campaigns. These services and service-related commodities mostly reflect core malaria control activities 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.

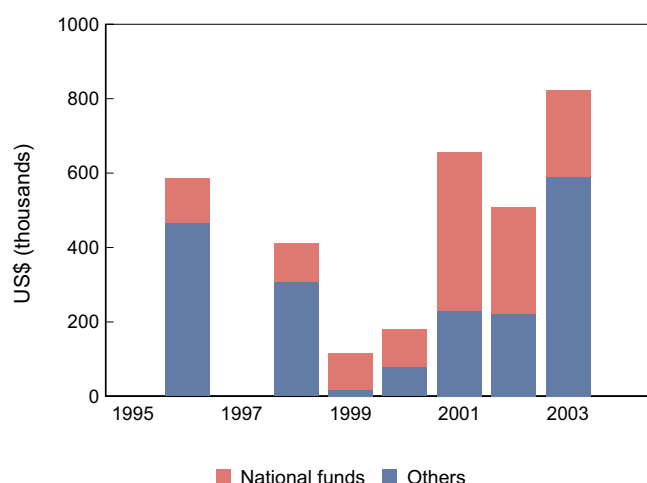
| Study years | Number of studies | Median | Range | | Percentile | |
|----------------|-------------------|--------|-------|------|------------|------|
| | | | Low | High | 25th | 75th |
| CQ | | | | | | |
| 1996-1999 | 3 | 63.6 | 50.0 | 77.2 | 50.0 | 77.2 |
| MQ | | | | | | |
| 1996 | 1 | 27.2 | | | | |
| CQ+SP | | | | | | |
| 1996-2003 | 7 | 30.7 | 12.9 | 37.2 | 24.0 | 33.0 |
| ATM+LUM | | | | | | |
| 2002 | 1 | 0.8 | | | | |
| ASU+MQ | | | | | | |
| 2002 | 1 | 0.9 | | | | |



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 | - | - |
| 1996 | 120 | 467 |
| 1997 | - | - |
| 1998 | 103 | 308 |
| 1999 | 97 | 19 |
| 2000 | 100 | 80 |
| 2001 | 425 | 229 |
| 2002 | 287 | 221 |
| 2003 | 232 | 590 |
| 2004 | - | - |

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.