

# Towards treating malaria efficiently





## **Malaria: a public health problem in Mali**

Malaria, an endemic phenomenon in Mali, is the main cause of disease and death in children under the age of 5. In an environment of widespread deprivation, where 72% of the population lives below the poverty line (UNDP), gaining access to health care is exceedingly difficult.

In 2005, a Médecins Sans Frontières (MSF) study in southern Mali revealed alarming findings in terms of death, disease, access to health care, poverty and the efficacy of treatment. MSF, in collaboration with the local health authorities, will begin work aimed at creating an efficient health-care strategy with 3 approaches.

**Providing quality health care**

**Removing the financial barrier**

**Lifting the geographical barrier**

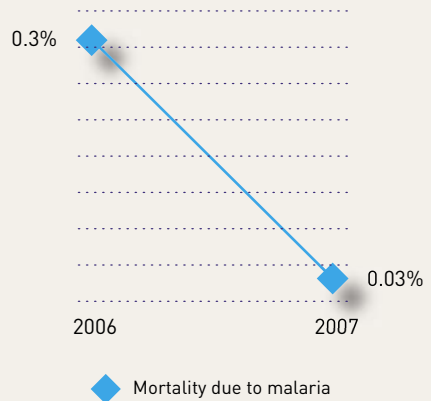
# Providing quality health care

Effective treatment of malaria depends upon quality screening and treatment. The Rapid Diagnostic Test (RDT) confirms the presence of the parasite in just 15 minutes from one drop of blood. The test is simple and reliable, allowing for early diagnosis of the disease and streamlining of treatment.

The use of artemisinin-based combination therapy (ACT) guarantees effective treatment. Artemisinin, or its derivatives, overcomes fever and parasitemia faster than any other known anti-malarial drug (in 90% of cases, parasitemia disappears within 48 hours). Combining artemisinin with another anti-malarial drug considerably reduces the risk of resistance.

## Decline of the mortality rate in health centres

The reduction in deaths linked to malaria in the community health centres is a result of the elimination of the financial barrier and by the population seeking quality treatment early. This reduction is also due to the support measures, follow-up, and monitoring of the health centres by MSF, as well as to the availability of ACT and RST for malaria treatment.



## Reduction in serious cases of malaria



2006: 8%



2007: 1.7%

Whereas the rate of severe cases of malaria was 8% in 2006, the new health-care model has reduced the number of cases to 1.7% in 2007.

## Removing the financial barrier

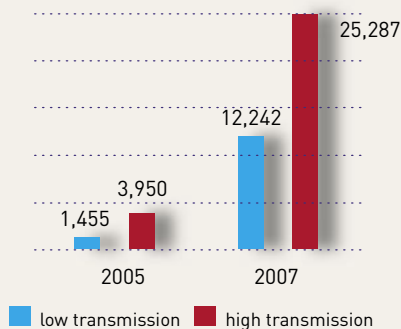
Based on a cost-recovery system, the health scheme in Mali must be paid for by the population. The average expenditure per patient treated for malaria at a health centre is approximately €6.46.

With less than \$1 per day (€0.60), the majority of the population is unable to seek health care, or has to suffer impoverishment in order to reimburse the medical fees. Hence, alarmingly few people visit the health centres.

In order to remove the financial barrier to access of health care for those most vulnerable to the disease, MSF has instituted free access (consultation + treatment) for children under the age of 5, and for pregnant women. For the remainder of the population, i.e. children over the age of 5 and adults, a fixed rate, determined to be affordable for the population (€0.30), is offered in all cases of fever.

### Six-fold increase in attendance by children under 5

In 2007, this totally free access resulted in a more than six-fold increase in attendance by the most vulnerable population. During periods of low malaria transmission, 13% of those treated suffered from malaria, compared with 59% in high-transmission periods.



### Increase in overall attendance

Due to the non-paying and fixed-rate systems, the overall number of annual consultations has quadrupled. In 2007, each community health centre welcomed 34 patients on average per day, compared with only 8 in 2005. Pregnant women and children under the age of 5 were the main beneficiaries.

## Lifting the geographical barrier

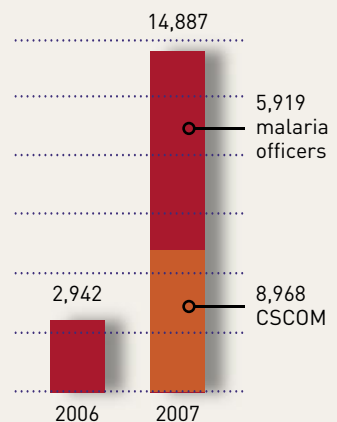
In southern Mali, the distances between villages and the nearest health centre has been identified as an obstacle to accessing health care. In the event of illness, long distances, combined with the financial barrier, force the population to minimize symptoms and to plan on traveling only in the event of extreme necessity, which often means severe malaria. In the rainy season, which coincides with the high-transmission period of the disease, the problem of distance is aggravated by the roads becoming impassable.

To help overcome the geographical barrier, MSF has put teams of malaria officers out in the field. These officers, who originate from and are chosen by the local communities according to pre-defined criteria, are trained by MSF, which also supplies them with Rapid Diagnostic Tests (RDT) and artemisinin-based combination therapies (ACT) for the care of non-critical malaria in children under the age of 10.

This new RST tool enables staff without medical expertise to diagnose cases of malaria, and the ACT packaging enables them to administer appropriate and effective treatment. During the high-transmission period, malaria officers travel to the most remote villages by bicycles supplied by MSF, and treat children under 10 years old, free of charge.

### Five times more children treated in areas more than 5 km from health centres

The deployment of malaria officers, combined with free access to health centres, has benefited children in the most remote areas of Mali. The number of children in areas located more than 5 km from the health centres having access to quality health care during high-transmission periods was 5 times greater in 2007 than in 2006. Populations once generally excluded from the health-care system during the rainy season and the high-transmission periods now have access to quality health care.





68, rue de Gasperich  
L-1617 Luxembourg  
tel. (+352) 33 25 15

[www.msf.lu](http://www.msf.lu)

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