



**UNHCR**

United Nations High Commissioner for Refugees  
Haut Commissariat des Nations Unies pour les réfugiés

# Malaria

## An operational priority for UNHCR

**United Nations High Commissioner for Refugees  
Division of Operational Services (DOS)  
Public Health and HIV Section**

**Street Address**

94 Rue de Montbrillant  
1202 Geneva  
Switzerland

**Mailing Address**

Case Postale 2500  
1211 Geneva 2 Depot  
Switzerland

**E-mail Address**

HQPHN@unhcr.org

**Internet**

[www.unhcr.org](http://www.unhcr.org)  
[www.unhcr.fr](http://www.unhcr.fr)

Public Health:	<a href="http://www.unhcr.org/health">www.unhcr.org/health</a>
HIV/AIDS:	<a href="http://www.unhcr.org/hiv-aids">www.unhcr.org/hiv-aids</a> / <a href="http://www.unhcr.fr/vih-sida">www.unhcr.fr/vih-sida</a>
Nutrition/FS:	<a href="http://www.unhcr.org/nutrition">www.unhcr.org/nutrition</a>
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## Introduction

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Malaria remains a leading cause of morbidity and mortality among refugees. A majority of refugees live in areas in which malaria is endemic or occurs in seasonal epidemics. Many factors may promote susceptibility to malaria morbidity and mortality among refugees. Pregnant women and young children are particularly at risk of severe illness and death. Refugee camps are often sited on marginal lands that promote breeding sites for malaria vectors. Refugees may be malnourished, particularly in the phase immediately following flight. Travel may take refugees through or to areas of higher malaria endemicity than their place of origin. Control programmes may have broken down (associated with the conflict that caused population flight) or never been implemented.

Delivered within a human rights framework and in accordance with the objectives of Roll Back Malaria partners, the UNHCR Malaria prevention and control activities are directed by guiding principles of effective malaria control in complex emergency settings, which applies equally to refugee situations, as for other situations of displacement. These guiding principles, a combination of international humanitarian standards and evidence-based programming, are defined into programmatic activities in UNHCR's Strategic Malaria Plan.

The Strategic Plan outlines the core components of effective malaria prevention and control against specific targets of achievement. The core components of effective malaria control programmes are:

- Participation of the affected population,
- Response prioritized to address life-saving needs,
- Targeting of those most at risk,
- Coordination,
- Information, Education and Communication to promote malaria awareness,
- Prevention and reduction of transmission through:
  - Consistent use of bed nets (long-lasting insecticide-treated nets; LLIN)
  - Intermittent Preventative Treatment during pregnancy
  - Indoor Residual Spraying,
- Early diagnosis and prompt treatment with safe and effective drugs (usually with artemisinin-based combination therapy; ACT),
- Training, capacity building and supervision,
- Monitoring and evaluation.

The operationalisation of the strategic plan required a major investment and resource mobilization from UNHCR, donor organizations and implementing partners.

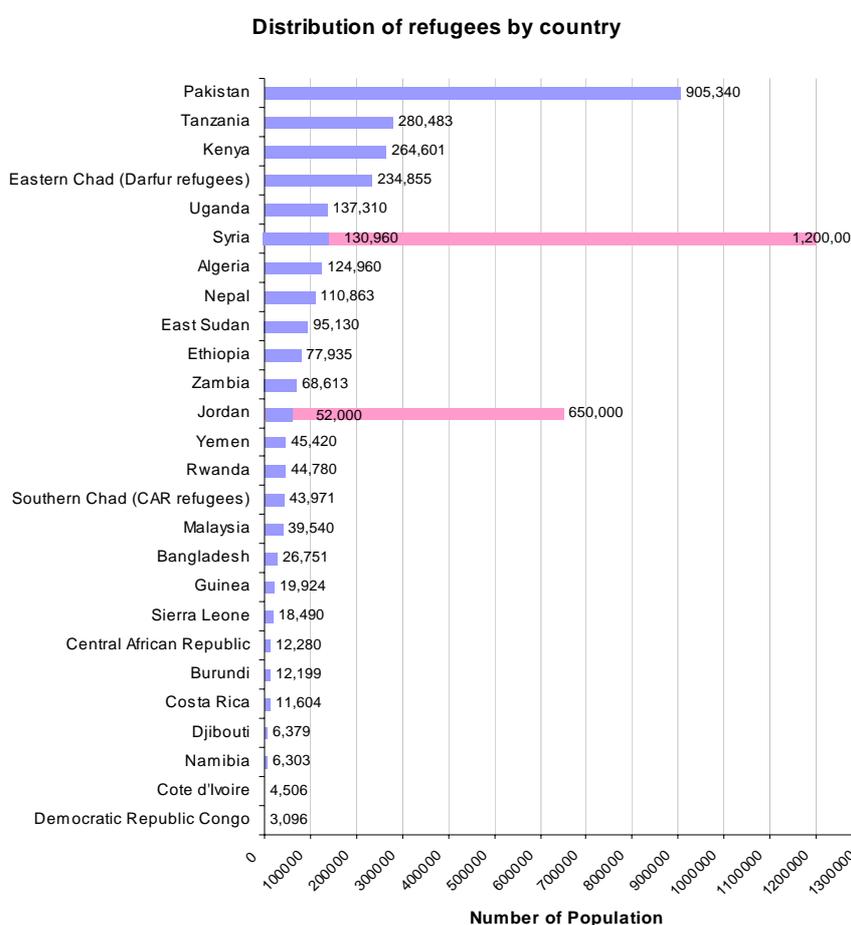
## Situation Analysis

### Persons of Concern to UNHCR

UNHCR is mandated to protect more than twenty five (25) million refugees, asylum seekers, internally displaced persons (IDPs), stateless persons and other persons of concern (PoCs). Historically, refugees have been the largest proportion of PoCs to whom UNHCR has access and provides protection and assistance.

The agency is currently responsible for about 11.4 million refugees.<sup>1</sup> Out of this population, approximately 3 million refugees live in camps and 3.1 million in urban settlements. Camp-based settings present UNHCR and its partners with the best level of access and service provision. About eighty five percent of the camp-based refugee population (2.5 million) benefit directly from UNHCR supported public health interventions. The picture presents differently, however, for urban refugees, where only about ten percent (313,000) have access to or utilize public health assistance provided or supported by UNHCR and its partners. Africa combined accommodates the highest number of refugees.

UNHCR provides protection and assistance to refugees in over 120 camps world wide. Of those camps 78 percent host a population larger than 10,000. The ten most populated camps are all found in Eastern Africa, with Dadaab in Kenya being the most populous, hosting 165,443 refugees in a group of three sup-camps, each accommodating between 40,000 and 67,000 refugees.

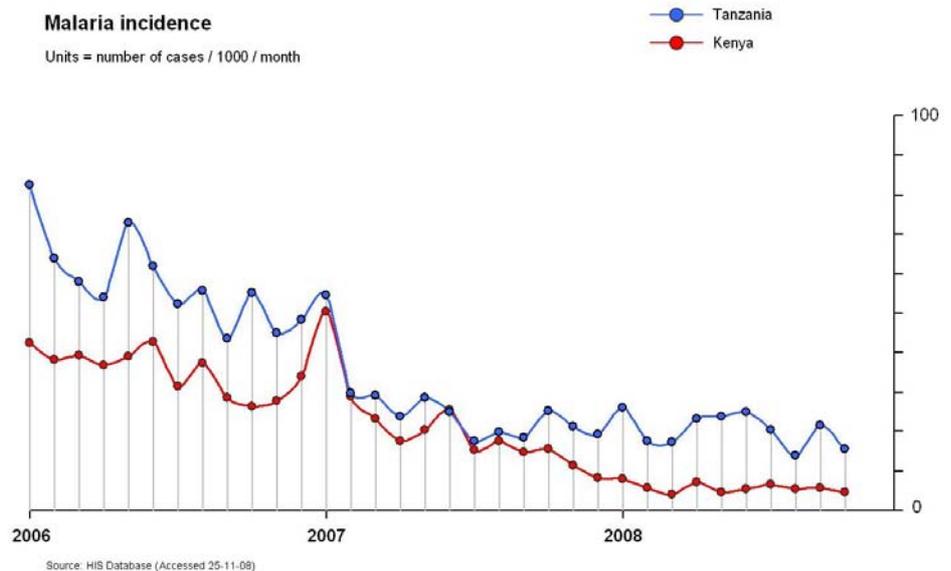


<sup>1</sup> 2007 Global Trends, UNHCR FICSS Standards & Indicators, available online: <http://www.unhcr.org/statistics.html>

## Malaria

The introduction of diagnostic confirmation to the malaria protocols in the majority of UNHCR's operations and the availability of highly effective ACT has reduced the malaria disease burden in many operations in which malaria is endemic. The graph below displays trends in the disease incidence of malaria in Tanzania and Kenya.

The case load of malaria on the primary health care services has notably reduced in Tanzania, Ethiopia, Kenya, Uganda and the DRC between 2005 and 2007. Ethiopia, Kenya and Tanzania were among the first operations to adapt the new diagnostic and treatment protocols.



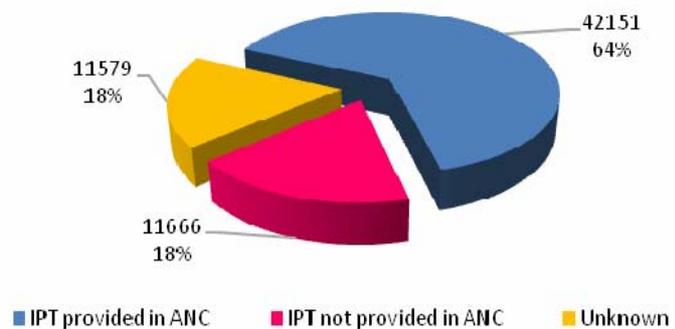
ACT, first introduced in 2005, has been implemented as first-line treatment in 2006 throughout UNHCR's operation. In 2007, all malaria endemic countries with the exception of Yemen had access to this highly effective treatment option. ACT has been adopted by most host countries as the first choice treatment for uncomplicated malaria in national protocols. Although, refugees may not access national health services, they do benefit from this legislation as host countries are so allowing UNHCR and its partners to purchase and use the drugs. Nonetheless, in 2007 20 out of 90 (14 percent) locations reported that there were either stock-outs or insufficient supplies of ACT. Efforts to improve national and humanitarian supplies need to be intensified.

In order to improve and sustain the efficacy of the ACT treatment, laboratory confirmation of malaria has proven to be an effective addition to clinical diagnosis. Although, UNHCR encourages the use of diagnostic confirmation, especially the rapid diagnostic test (RDT), not all UNHCR health partner have yet introduced protocols to test clinical cases of malaria before treatment. Diagnostic tests are available in more than 90 percent of malaria endemic programmes. However, the testing is not yet consistently implemented in many operations.

Insecticide-treated nets (ITNs) help reducing transmission of malaria. However, they are only effective if used consistently. Between 2005 and 2008 UNHCR procured and distributed 2.1 million long-lasting insecticide-treated nets (LLINs) to refugees worldwide. These long-lasting nets offer improved protection over a longer time period. UNHCR has adopted its strategic policy to use LLINs only in future malaria control programmes.

The prevention of malaria during pregnancy is substantially contributing to the reduction of anaemia, obstetric complications, abortion and stillbirth. Sixty four percent (64%) of refugee women of reproductive age living in malaria endemic areas have access to preventative malaria treatment during routine antenatal consultations. This needs to be further increased and build into ANC protocols.

**Intermittent Preventive Treatment (IPT) with SP (Fansidar) routinely given as part of the Antenatal Clinic (ANC) in areas of moderate or high transmission of falciparum malaria**  
(number of pregnant and lactating women is used as proxy denominator)



## Malaria Control

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### Diagnosis and Treatment

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The strategic plan calls for a free of charge provision of diagnosis and treatment as well as treatment should be on the basis of laboratory confirmation except: 1) during confirmed malaria epidemics when there is an overload of the health services that precludes individual testing of all febrile patients, or 2) among children under 5 years in high transmission settings, where the Integrated Management of Childhood Illnesses (IMCI) model should be followed based on clinical diagnosis. RDTs are used in emergencies.

Effective implementation will require good supply chain, standard treatment protocols, and adequate training and supervision.

The approach to treatment and diagnosis has mostly been harmonized with National Malaria Control Programmes if its policy is based on efficacious antimalarial drugs (e.g. ACT). Where the national protocol is based on drug treatment that is no longer effective, special permission should be obtained from national or local authorities for deviation from this protocol.

### Prevention

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Malaria prevention services include site selection and planning, ITNs, intermittent preventive treatment during pregnancy, and indoor residual spraying (IRS). Well organized implementation plans ahead of rainy seasons are ensuring impact and sustainability.

## Long Lasting Insecticide-Treated Nets (LLINs)

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The WHO position paper<sup>2</sup> on insecticide-treated nets recommends that malaria control programs purchase only LLINs, and furthermore recommends full coverage of all people at risk of malaria. Nets have been shown to provide a community protective effect when as little as 60% of the population are using the nets<sup>3</sup>. (At lower rates of coverage, they have only an individual effect on those sleeping under the net.) During scale-up operations of LLIN distribution, certain at-risk populations should be targeted first such as pregnant women and children under five years of age. In general, it is recommended that one LLIN be given to each two persons. Additionally, all UNHCR programs should have LLINs for all inpatient beds in clinics, hospitals, and therapeutic feeding centres.

UNHCR aims at achieving universal net coverage for its PoCs by 2010. The distribution of LLINs in favour over conventional ITNs and their consistent use will further improve protection from infection.

Distribution should be accompanied by effective community education strategies, monitoring, and follow up. Net misuse and resale is a problem in refugee settings where adequate community engagement and education is not conducted, and there are competing survival priorities. For example, some programs have noted that nets are sold when food rations are cut.

General distribution should be supplemented by distribution through antenatal clinics, immunization programmes, primary health facilities, hospitals, HIV/AIDS programmes, and feeding centres to ensure that all pregnant women, malnourished children, children under-five, and people with HIV infection or clinical suspicion of AIDS sleep under insecticide treated nets as a personal protection measure.

There are many other insecticide-treated materials which have been used in attempt to prevent spread of malaria such as insecticide treated blankets, clothing, and plastic sheeting. Although many show promising study results, none are currently approved and/or recommended by WHO or the WHO Pesticide Evaluation Scheme. UNHCR has been working closely with malaria partners, academic institutions, and UN agencies to further improve novel materials and strategies for malaria control and prevention in emergencies.

## Indoor Residual Spraying (IRS)

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IRS can be effective in African settings with duration of 2-6 months depending on the type of shelter and insecticide. IRS can also be effective in other settings, depending on vector characteristics. Experience from most UNHCR and other programmes shows that spraying usually commences after the start of the rainy season, too late to have an impact on malaria transmission, a considerable waste of resources, and risking possible negative consequences for the environment and human health. Even with all the required operational factors in place, IRS is not always done well.

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<sup>2</sup> Insecticide-treated Mosquito Nets: a WHO Position Statement, 2007

<sup>3</sup> Killeen GF et al. Preventing childhood malaria in Africa by protecting adults from mosquitoes with insecticide-treated nets. *PLoS Medicine*, 2007, 4(7):e229.

For malaria in particular, community investment and participation are absolutely essential for a successful prevention and treatment campaign. Efforts such as LLINs and IRS are virtually useless unless understood and accepted by the target population. As well, it is often seen that sick patients will delay seeking care which can be related to poor community education and communication efforts.

When establishing messages and priorities, several key issues should be included: causes of malaria, vulnerable populations, discernment of severity, treatment, accessibility to health facilities, and prevention. Implementation of IEC should be executed with respect to timing such as being aware of holidays, public gatherings, and other health campaigns. Messages can be strategically interposed into and in conjunction with outpatient clinics, supplementary feeding centres, immunization, and ANC efforts.

It simply cannot be overstated that IEC must be linguistically, socially, and culturally appropriate. In designing successful health education messages, several elements should be considered:

- Defining the objectives of health education
- Identifying the target audience
- Defining the desired behaviours and developing clear messages
- Providing information about what people can do
- Using methods that are culturally acceptable
- Delivering messages through trusted and respected individuals
- Providing training and materials

To help achieve these objectives, it is helpful to establish multi-dimensional working groups consisting of representatives from implementing partners and coordination agencies, community health workers, and leaders from the refugee and resident populations. Once the community is aware of the nature and need of malaria interventions, sustained participation can be ensured by allowing and providing for regular bilateral feedback sessions and meetings. This also naturally allows for training in malaria control to interested community leaders and health workers.

## Participation

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The participation of beneficiaries has not only been a strategic objective in all UNHCR programmes but a catalyzing factor in the scale up and improvement of quality of malaria services and service-related commodities. The refugees and other PoCs are encouraged to be engaged in all phases of the strategic plan including the situation assessment, planning, monitoring, and delivery of services.

In targeted countries, the malaria control programmes must address community knowledge, behaviour and practices, including: prompt treatment seeking; acceptance of new treatments; drug compliance; and utilization of insecticide treated nets or other vector control methods.

## Setting-specific target interventions

Malaria-specific interventions relevant in common situations in which UNHCR operates can be summarized as follows:

- **Emergencies:** In the acute phase of the crises, the focus is on prompt access to effective treatment (ACT). Where feasible, this can be supplemented by prevention targeting groups at highest risk of severe malaria and death.

- **Stable settings:** As the situation stabilizes, high coverage community vector control can be implemented. In Africa at least 60% of the population should be using insecticide treated bed nets and 85% of shelters sprayed with residual insecticide. As soon as antenatal services are established, intermittent preventive therapy in pregnancy should be implemented in moderate to high transmission settings.

- **Urban settings:** refugees should have equivalent access to treatment and prevention as the host population, without discrimination.

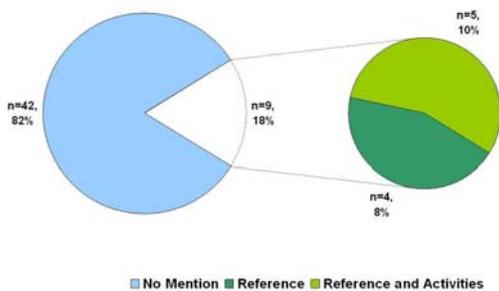
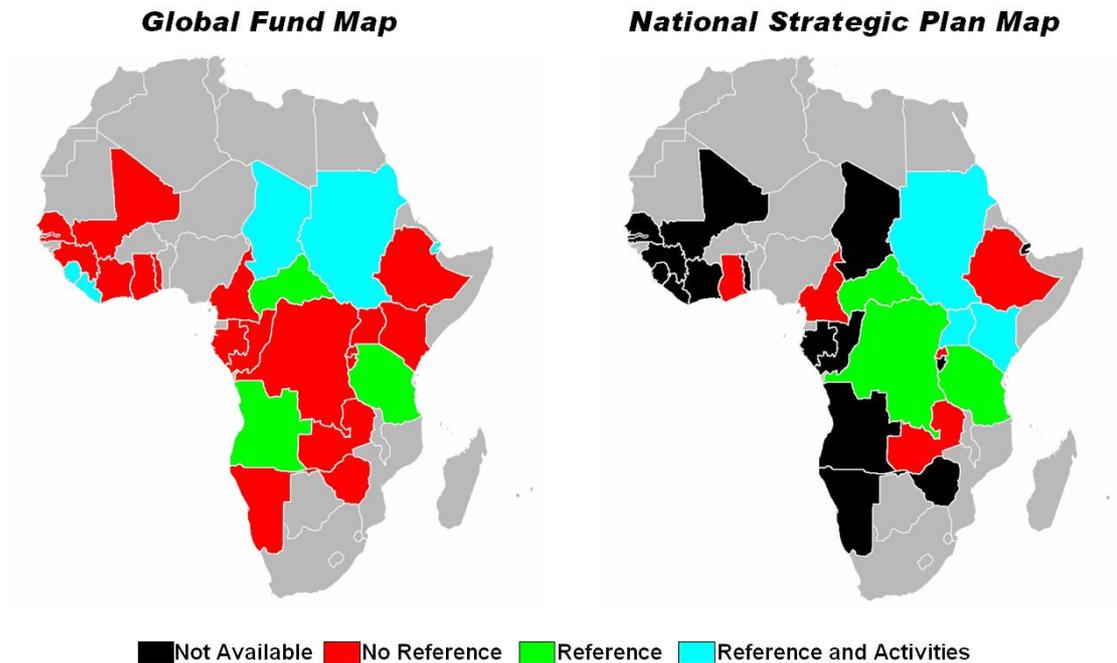
- **Returnee settings:** Rehabilitation and reconstruction efforts should focus on effective malaria treatment and high-coverage community prevention. Returning populations should have equivalent access to effective services as the local populations. LLIN given out as part of the repatriation package can provide personal protection against malaria, provided adequate pre-departure and transit health education is delivered to promote correct use.

## Advocacy for Inclusion of Persons of Concern

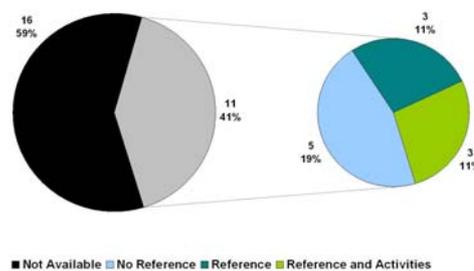
UNHCR advocates for the inclusion of refugees and IDPs in National Malaria Control Plans, Global Fund and other donor proposals.

In a review of countries in Africa that host equal or more than 10,000 refugees it was revealed that out of 22 retrieved national malaria plans only 3 (11%) countries made reference to refugees and a further 3 (11%) referred to refugees with specific activities. A similar picture presents in the review of approved proposals to the Global Fund rounds 1 to 8. Of 51 submitted country proposals that meet the criteria of hosting equal or more than 10,000 refugees four (8%) proposals referred to refugees and 5 (10%) referred to specific activities targeted at refugees. Thus far, UNHCR has been the sub-recipient of GFATM grants for malaria in one country, Sudan.

Inclusion of **Refugees** in approved GFATM submissions with malaria component and Malaria National Strategic Plans in African countries with ≥10,000 Refugees



N<sup>Total with ≥10,000 Refugees</sup> = 51 Proposals\*  
\*Includes multiple submissions from individual countries



N= 27 countries

## Partnerships

UNHCR coordinates and shares malaria control information to governments, UN agencies and other humanitarian organisations. UNHCR is a member of the Network for Malaria Control in Emergencies, coordinated by WHO and liaises with Roll Back Malaria and the Alliance for Malaria Prevention.

As part of the humanitarian community and within the protection mandate, UNHCR ensures that malaria control policies and programmes for IDPs are coordinated and integrated within the humanitarian reform process.

In recent years, UNHCR has developed partnerships with the UN Foundation, resulting in collaboration on the *Nothing but Nets* campaign in 2008/9 as well as maintains close contact with the Novartis Foundation and the US Government's President's Malaria Initiative.