

MALARIA IN ETHIOPIA



Estimated deaths attributable to Malaria per annum (Child survival strategy, 2005)	94,400 children
Estimated number of lives saved if all Malaria control interventions fully implemented (Child survival strategy, 2005)	Goal: 70,400 children
Malaria case fatality rate	4.2 % Goal: reduce case fatality rate to 2.2
Number of children dying from malaria during large scale epidemics (once every 3 - 7 years)	40,000 to 130,000 deaths Goal: by 2010 – reduce epidemics by 80%
Estimated number of fever cases in Ethiopia per annum	33 million
Estimated number of malaria cases per annum	15.3 million Goal: reduce cases by 50% (8.5m) by 2010
Estimated number malaria cases caused by <i>Plasmodium falciparum</i> malaria parasites	7.7 million Goal: reduce cases by 50% (3.8m) by 2010
Number of malaria cases treated per year	5 million
Families in stable Malaria areas with mosquito net during 2005 DHS	19.7% (of which 10.1% LLIN) (survey conducted before delivery of 10 million LLINs since 2005)
Number of LLINs distributed in Ethiopia to Malaria affected families between August 2005 and April 2007	15.8 million LLINs distributed to 9 million families. 4.9 million extra LLINs secured for 2007.
Number LLINs needed to cover all Malaria affected families with 2 LLINs per family	20 million LLINs to protect estimated 10 million families at risk to Malaria by Sep 2007
Number ITNs needed to maintain >80% household coverage to 2015	45 million replacement ITNs needed over the next 8 years to maintain high effective coverage rates (>80% children sleeping under LLINs the previous night).
Doses of Artemether-Lumefantrine distributed to Health Centres and Posts since January 2005	8.2 million
RDTs procured since January 2005	7.2 million

ISSUE

Ethiopia is also one of the most malaria-epidemic prone countries in Africa and malaria contributes up to 20% of under-five deaths. Tragically, in epidemic years, mortality rates of an extra 40,000 children are not uncommon. In the last major malaria epidemic in December 2003, 3,689 villages in 211 districts were affected, resulting in over 6.1 million cases with an estimated 45,000 to 114,000 thousand deaths

Out of an estimated 15.3 million malaria cases annually, only 4-5 million will be treated in a health facility. The remainder will often have no medical support. It is estimated that only 20 per cent of children under five years of age that contract malaria are treated in a facility.

Malaria is prevalent in over 75 per cent of the country, putting over 50 million people at risk (out of a countrywide population of 77 million). The disease accounts for seven per cent of outpatient visits and represents the largest single cause of morbidity. Large scale epidemics tend to occur every 5-8 years in certain areas due to climatic fluctuations and drought-related nutritional emergencies.

Children and pregnant mothers are the most vulnerable. Drought related malnutrition, poor health and no sanitation can leave a weak immune system open to attack from malaria. It can also worsen the effects of malnutrition through malaria-related diarrhea and anemia.

Malaria is also known to speed up the onset of AIDS in anyone who is HIV positive. Those living with HIV in high-risk areas are also amongst the most vulnerable.

The situation is exacerbated by the vast distances rural Ethiopians must cover in the countryside to find a clinic or other health facility with reliable medical supplies. With day to day survival preoccupying the minds of most parents, walking more than a day for anti-malarial supplies is a daunting task.

Ethiopia's Child Survival study showed that on average, out of 470,000 child deaths per year, 94,400 are attributable to malaria. However, if the available malaria control interventions are implemented correctly and effectively, it has been estimated that these malaria related deaths could be reduced by a massive 75%, saving the lives of around 70,000 children every year.

ACTION

To save the lives of thousands of people, and reduce debilitating malaria related illness, UNICEF has been assisting Ethiopia to roll out one of the largest and most ambitious malaria programs in Africa. Already 15.8 million Insecticide Treated Nets (ITNs), nearly 90% of them Long Lasting Insecticide Nets (LLINs) have been distributed to over nine million malaria affected homes since 2005. A further 4.2 million LLINs are on track to reach the impressive target of 20 million nets, enough to potentially protect 50 million people from malaria.

The aim is to reduce morbidity and mortality of malaria by half by the year 2010, and again by another 50% by 2015. To start this undertaking, an unprecedented increase in malaria control resources was made available to Ethiopia from the Global Fund, World Bank and from a number of donors, including CIDA and the Japanese government through UNICEF. This has resulted in a major scaling up exercise across the whole country.

The Government of Ethiopia held its Roll Back Malaria inception meeting in 2000 and in 2001 finalized a five-year strategic plan for malaria control. In 2006 the second five-year plan (2006-2010) was completed. In this latest plan, the Ministry of Health and Roll Back Malaria partners in Ethiopia are determined to achieve an 80 per cent coverage and utilization rates by children and pregnant women of insecticide-treated mosquito nets in all regions by 2010. Linked with this is the goal of, by 2010, having 80% of malaria cases in Ethiopia treated successfully within 24 hours with effective anti-malaria drugs.

The malaria control program will piggy back on the Health Extension Programme which aims to construct new health posts in 15,000 kebeles nationwide and train over 30, 000 Health Extension Workers (HEWs). The expansion of this community based health service, including improved quality referral, will provide an important gateway for the scale-up of malaria control interventions to all malaria affected people in Ethiopia.

HEWs will diagnose malaria caused by *P. falciparum*, using Rapid Diagnostic Kits at health posts and even in homes for the first time, and will treat all cases of malaria using the new drug Artemether-Lumefantrine. They will also be part of an improved early detection system for malaria epidemics, so that any serious outbreaks can be halted or controlled quickly. HEWs will also play an important role in LLIN distribution, targeting those in most need and replacing old nets in their communities.

IMPACT

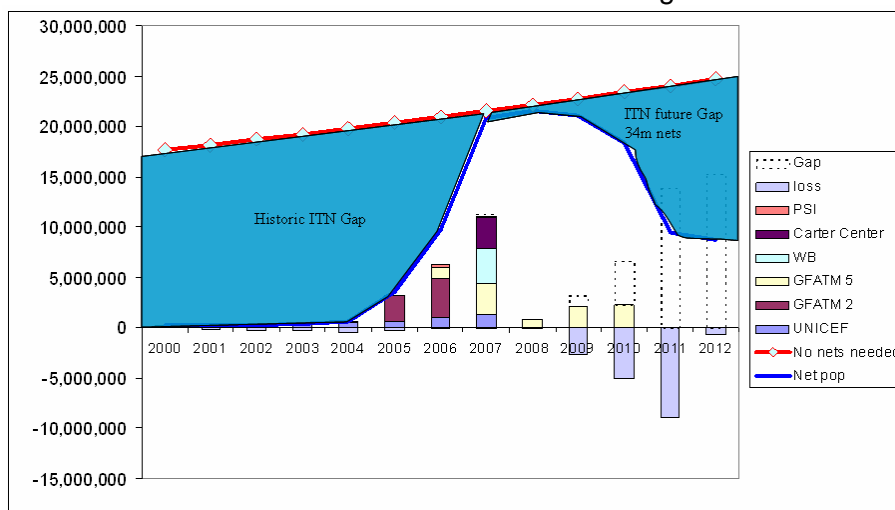
Long Lasting Insecticide Nets (LLINs) reduce child mortality

ITNs have been shown to decrease under-5 mortality by up to 50%. They also help to reduce re-infections after people have been cured. Preventing re-infections with ITNs saves money and reduces illness. The infection “pool” is also rapidly reduced by preventing mosquitoes from transferring the disease from already infected individuals. The 20 million LLINs will go a long way in reducing malaria by 50% by 2010 and a further 50% by 2015.

Maintaining high future LLIN utilization rates – a high impact child survival intervention

The scale-up to 20 million LLINs will be completed in 2007 (See Figure), but the momentum must be kept going since the life-span of an average LLIN is around three years. If no replacement ITNs are provided, by 2012, coverage rates will have reduced from well above the 2007 figure of 80% to below 40%. To avoid this, Ethiopia will be moving into the LLIN replenishment phase, where old unusable nets will have to be replaced with new ones.

Millions of replacement LLINs will be needed to maintain blanket coverage up to 2015, the MDG date. The ultimate goal is to maintain LLIN utilization rates by children and pregnant women of at least 80% continuously well into the future.



The graph above shows the total number of LLINs currently secured for Ethiopia from 2000 to 2012. The red (straight) line shows the total number of nets needed to cover all malaria affected homes (estimated at 10 million – 50 million people). This requirement is increasing with the population growth rate of Ethiopia, and assumes that the current malaria situation remains the same. The blue (curved) line shows the total estimated number of ITNs in Ethiopia that can potentially be used by people to protect themselves from malaria. If no more funds are secured, the blue line decreases to below 7 million nets by 2012. Therefore urgent support and additional funding is needed to fill in the future gap, to supply enough replacement nets to maintain a rate of more than 80% children and pregnant women sleeping under an ITN every night.

Rolling out malaria drugs

The fight against malaria cannot be won with the use of ITNs alone. The distribution of anti-malarial drugs is also essential to combat the disease. This other new malaria control intervention in Ethiopia has seen the successful replacement of the old ineffective anti-malaria drug (Sulfadoxine-Pyrimethamine, Fansidar at 36% clinical failure rates), with the new highly effective Artemisinin Combination Drug (ACT) called Artemether- Lumefantrine (tradename - Coartem). This drug is 99% effective when used correctly, and has been rolled out to all health facilities, including thousands of new health posts across Ethiopia. The challenge now is to ensure that this new drug is utilized correctly by millions of rural people most affected by malaria. Already, in 2006 Ethiopia saw a significant reduction in malaria morbidity and mortality and in the number of life threatening epidemics.

UNICEF and WHO are assisting the government with distribution of Coartem as a first line of treatment drug, while also supporting supervision and coordination -helping to make correct diagnoses alongside prompt and effective treatment, using the new Rapid Diagnostic Test kits that can confirm malaria cases quickly in the home.

Ensuring people use their LLINs and seek prompt treatment

Millions of LLINs and the new drug Artemether - Lumefantrine have now been distributed, but there is an urgent need to ensure that these supplies are used correctly to reduce malaria. In collaboration with the Federal Ministry of Health and partners in the Roll Back Malaria Programme, UNICEF has been supporting the development and implementation of community based social communication. The aim here for preventing malaria transmission is to work with communities so they use their nets every night and especially protect their children and pregnant women from infectious bites from mosquitoes. Moreover, they are taught the danger signs of malaria, and seek out prompt and effective treatment with the new highly effective ACT drugs.

UNICEF plans to do this by developing malaria control social communication toolkits (cards with pictorial education on malaria control) which will be integrated into a health social communication toolkit used by HEWs at community level. UNICEF will provide training to HEWs and their Community Resource Persons (CRPs), volunteers who will spread health education among rural families. Both HEWs and CRP will use their toolkits at focal discussion groups, during traditional festivities, and at any other appropriate social events. They will also be used at health centres, health posts, and by staff and volunteers visiting patients in their homes.

Consolidating malaria control action for improved child survival

Ethiopia now has the tools to reduce malaria, but needs to consolidate its malaria control program. This includes ensuring that supplies reach end-user points in correct quantities and at the right times, and that people affected by malaria utilize them correctly. This may sound straight forward, but immense effort, excellent coordination and refined management is needed. It also depends on the kind support of donors who provide the necessary supplies to ensure that all people affected by malaria have sustained long term access to LLINs for personal malaria protection, and can easily receive prompt and effective treatment near to their homes.