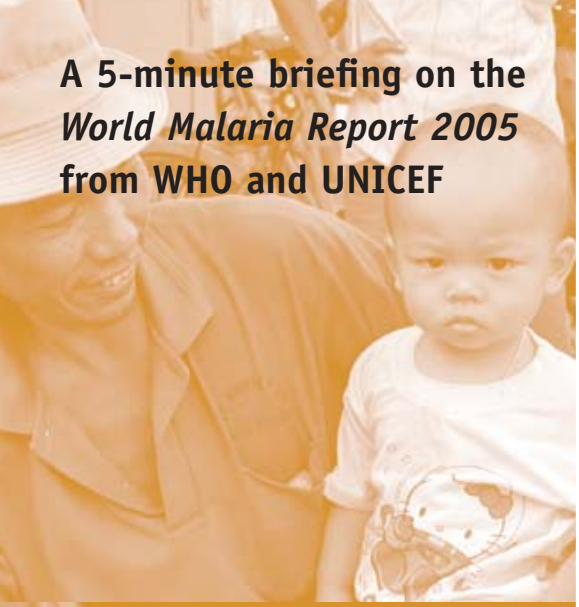
A 5-minute briefing on the *World Malaria Report 2005* from WHO and UNICEF



During the past 5 years real progress has been made in scaling up malaria control and prevention efforts

2005 WORLD MALARIA REPORT

Over 3 billion people live under the threat of malaria. It kills over a million each year – mostly children. But the means to turn this tragedy into a global success story could now be made available to those in need.

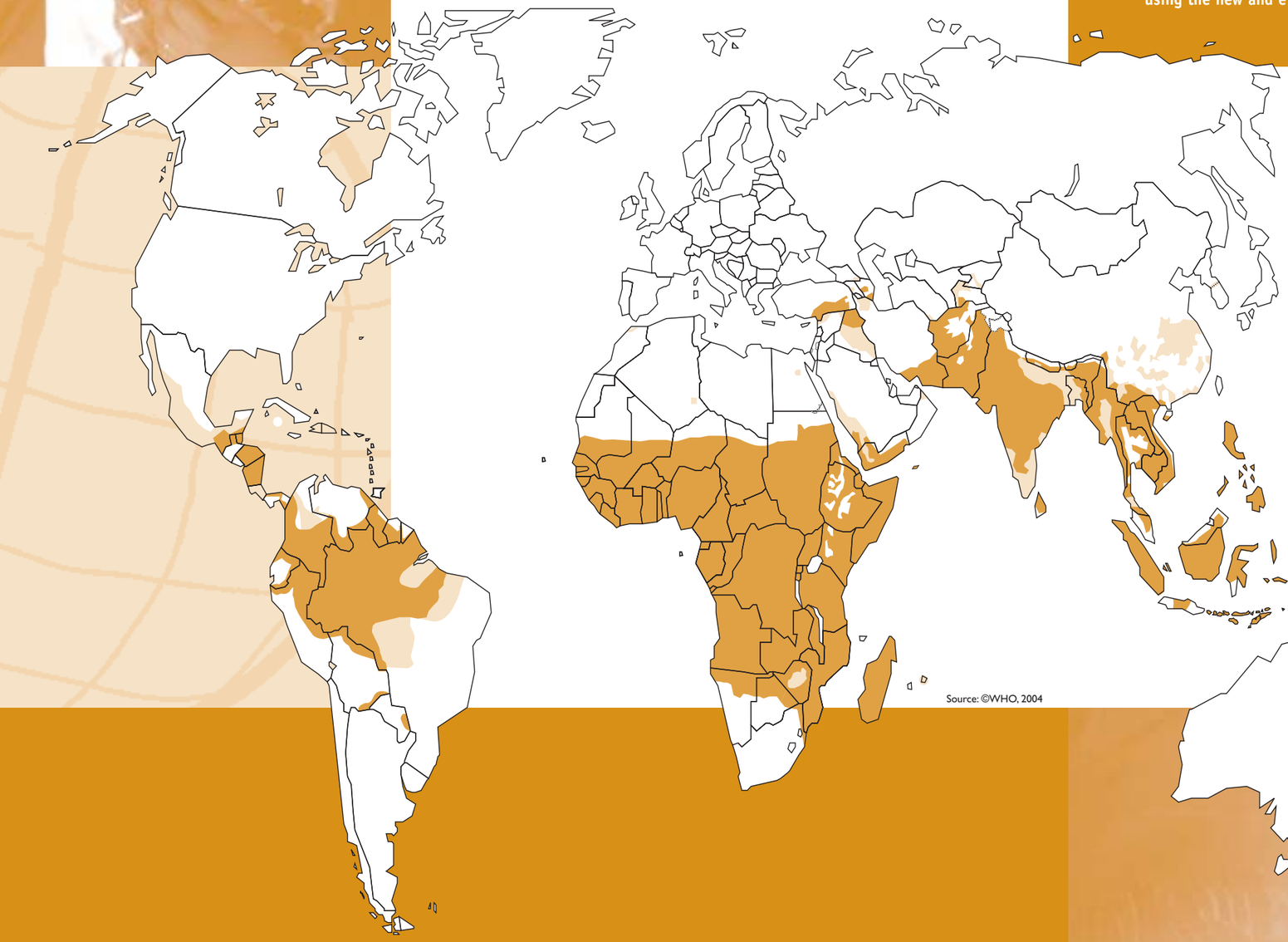
unicef

World Health Organization

MALARIA
the world picture

AFRICA

In the year 2000, African countries committed themselves to a series of malaria control targets to be reached by the end of 2005, chiefly protection through the use of ITNs for 60% of the people at highest risk and intermittent preventive treatment for 60% of pregnant women. Some countries have been able to reach or even exceed some of the targets. Most remaining countries are now poised to begin scaling up antimalarial efforts. A total of 23 African countries are now using the new and effective drugs (ACTs) and 22 have adopted the RBM-recommended strategy of home management of malaria for children under 5 years of age. The number of ITNs distributed has increased 10-fold during the past 3 years in over 14 African countries. And surveys have shown remarkable increases in ITN coverage for children under 5 years of age in countries such as Eritrea and Malawi. But death rates are still high among those who fall ill and the vast majority of the death toll is among children under the age of 5.



Source: ©WHO, 2004

Areas where malaria transmission occurs

Areas with limited risk

No malaria

This map is a visual aid only. It is not a definitive source of information about malaria endemicity.

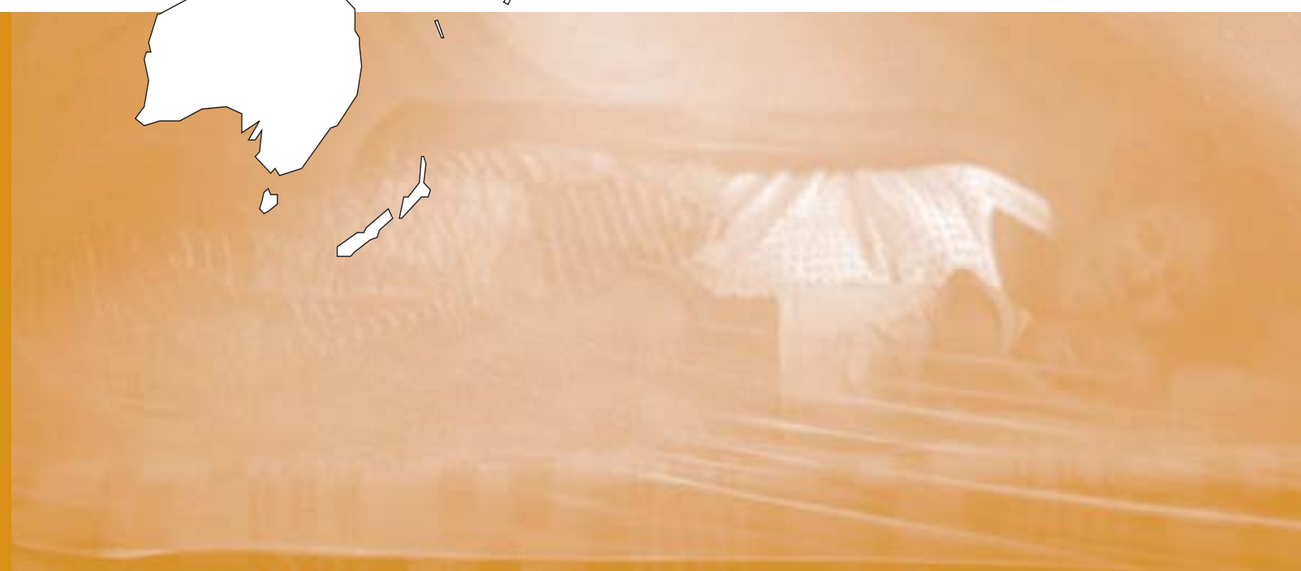
Malaria. A disease so deadly it can kill within hours. And so prevalent that in some parts of the world there is barely a child who has not suffered by the time of his or her first birthday. Malaria kills over a million each year and some 3.2 billion people living in 107 countries or territories are at risk. But malaria is a curable disease. It is also a preventable disease.

The *World Malaria Report 2005* represents the most comprehensive effort ever made to present the available evidence on malaria all around the globe. And it shows that during the past 4 or 5 years real progress has been made in the battle against this most devastating disease. For while overall trends are still hard to prove, the *World Malaria Report 2005* presents clear evidence of successful control efforts that are having an impact on malaria in a large number of countries and territories throughout the world.

Rolling back malaria

A generation ago hopes were high that malaria could be eradicated. But the 1980s and early 1990s saw a tragic reversal of fortunes. The disease gathered new strength as the parasites developed resistance to the most commonly used antimalarial drugs, and the mosquitoes became resilient to insecticides. Economic upheaval, armed conflicts and complex emergencies also caused the breakdown of control programmes and the collapse of local primary health services. Determination and funds to fight the disease dried up and malaria once again tightened its grip on the poor and the vulnerable. In some parts of rural Africa south of the Sahara, child deaths from malaria increased by up to twofold during the 1990s while deaths from other causes were falling. Malaria also re-emerged in several Central Asian and Eastern European countries and in South-East Asia.

In response the Roll Back Malaria (RBM) Partnership was launched in 1998 by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP) and the World Bank to bring together major stakeholders in the global fight against malaria. These include governments of malaria-endemic countries, donor governments, international



This first *World Malaria Report 2005* signals the continuation of a regular process of documentation that started with the release by WHO and UNICEF of *The Africa Malaria Report 2003*, and is intended as a contribution to the monitoring of progress towards meeting the global targets on malaria control.

THE GLOBAL TARGETS

Roll Back Malaria Partnership – ***To halve malaria-associated mortality by 2010 and again by 2015***

Millennium Development Goals – ***To have halted by 2015 and begun to reverse the incidence of malaria and other major diseases***

Abuja Declaration – African Summit on Roll Back Malaria – ***By 2005 in Africa at least 60% of those suffering from malaria should be able to access and use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms; at least 60% of those at risk of malaria should benefit from suitable personal and community protective measures such as insecticide-treated mosquito nets; at least 60% of all pregnant women who are at risk of malaria should receive intermittent preventive treatment***

ASIA

From a global perspective the proportion of malaria cases has shifted slightly from Africa to the Asian continent. In countries such as Afghanistan and Yemen the malaria crisis deepened during the 1980s and 1990s. Malaria control ground to a halt due to a combination of war and social unrest, a chronic shortage of resources, the collapse of health systems and resistance to insecticides and antimalarial drugs. But recently, efforts at malaria control have been successfully revitalized. Elsewhere in the Eastern Mediterranean subregion, Iraq, the Islamic Republic of Iran, Pakistan and Saudi Arabia have low-to-moderate malaria rates and relatively well-established control programmes.

In South-East Asia malaria was brought to low levels in the 1960s and 1970s with extensive DDT indoor spraying and large-scale use of antimalarial drugs. But transmission never ceased completely and the disease re-emerged in the 1980s and 1990s as control efforts ran out of steam and resistance to the drugs and insecticides spread rapidly. South-East Asia has the highest rate of drug resistance in the world. But RBM strategies are now being implemented and the number of malaria cases has fallen by about twofold in most countries since 1990-1991. In India malaria cases were halved in 2002 compared with a peak in 1995-1996.

In the Western Pacific subregion malaria control was revitalized in the mid-1990s following a resurgence of the disease related to economic decline, large-scale population movement and breakdown of disease control and health-care services. Rates of reported cases fell gradually between 1992 and 2003.

organizations, private foundations and the private sector, nongovernmental organizations and research and academic institutions. The initiative has generated a renewed political commitment to fight the disease and led to a quantum leap in funding. But the goal is ambitious: to halve the toll of death and disease from malaria by 2010.

The world picture

The *World Malaria Report 2005* reviews each of the three world regions that are significantly affected by malaria and shows wide variation in the grip of the disease. What is clear is that there is no simple correlation between the proportion of each region's population that is considered at risk and the numbers who fall ill or die.

Over 80% of malaria deaths occur in Africa where around 66% of the population are thought to be at risk. In contrast, less than 15% of the global total of malaria deaths occurs in Asia (including Eastern Europe), despite the fact that an estimated 49% of the people in this region are living under threat from the disease. In the Americas 14% of the population are at risk, but the region sees only a tiny fraction of global malaria-related deaths.

As these figures make clear, malaria exacts its heaviest toll on the African continent. Chiefly there are two explanations. First, the climate and ecology of tropical Africa provide ideal conditions for *Anopheles gambiae* – the most efficient of the mosquitoes carrying the malaria parasite – to thrive. And it is here also that *Plasmodium falciparum* – the most deadly species of the malaria parasite – is most common. This fatal combination greatly increases the transmission of malaria infection and the risk of disease and death. Second, poverty and lack of good-quality health care have hindered the control and treatment efforts that have had a significant impact elsewhere in the world.

Those most affected

A single bite from an infected mosquito is all it takes. A small child whose body is not yet able to fight the disease can be dead within a day. Pregnant women are highly vulnerable too. So is anyone whose defences are low as a result of poor health or who has no immunity because they have never, or only rarely, been infected with malaria. And deaths are only the tip of the iceberg. In severe cases of cerebral malaria, surviving children can be left with seizures, speech disorders or partially paralyzed. Even when the harm done to their minds and bodies is less evident, recurrent bouts of fever drain a child's capacity to learn. Pregnant women who get malaria in some lower-risk areas are prone to anaemia, premature delivery and stillbirth; in other higher-risk areas they are more likely to suffer and die from anaemia and their babies are likely to be born too small to survive their first year of life. And all who fall sick – with fever, headache and exhaustion – are less productive and lose income because of absences from work or being too ill to plant and harvest crops. In effect, malaria tightens the shackles of poverty in the households, the communities and the nations where it holds sway.

We now have the tools

At the heart of the RBM approach is an understanding that malaria may never be wiped out once and for all. But the disease can – and must – be controlled.

The fight to control malaria demands an attack on two fronts: protecting the vulnerable and treating the sick. And it is essential that the measures used are affordable and sustainable so that they can continue to work far into the future. Sleeping under a mosquito net treated with insecticides that kill mosquitoes or stop them from biting is powerful prevention against malaria, as is spraying inside dwellings with insecticides that leave a residue on walls. Special protection for pregnant women using these insecticide-treated nets (ITNs) and intermittent preventive treatment with antimalarial drugs given as part of normal antenatal care can protect the mother and her unborn child. Rapid treatment with effective antimalarial drugs for anyone suspected of having malaria can save lives. And improved early warning, detection and response to malaria epidemics can avert catastrophe.

The *World Malaria Report 2005* documents the substantial progress that has been made in implementing these strategies on an increasingly wider scale. And, although it is too early to measure the precise impact of these efforts in terms of lives saved, there is good reason to believe that real reductions in deaths and disease will be achieved in the next few years. In fact, everything needed to turn this tragedy into a global success story could now be made available to those most affected.

Meeting the challenges in malaria control

The *World Malaria Report 2005* also reveals the difficulties involved in the battle against malaria and shows the steps that are being taken to overcome them.

For example, drug resistance has been a serious obstacle to malaria control. Chloroquine, the cheapest and most widely used antimalarial drug, has lost its clinical effectiveness in most parts of the world. But the next generation of antimalarial drugs – artemisinin-based combination therapies (ACTs) – are highly effective and life saving. Work is under way to make these new drugs widely available, and more and more countries are changing their national drug policies and adopting ACTs as the first choice of treatment. However, while ACTs are available at between US$ 0.75 and US$ 2.75 per treatment, they are much more expensive than the drugs that previously worked. The

RBM SUCCESS : CAMPAIGNS WORK

A campaign to distribute ITNs combined with measles immunization in five target districts in Zambia in 2003 succeeded in meeting and beating the Abuja Target of 60% ITN use within only 6 days.

RBM SUCCESS : INTENSIFIED CONTROL PLANS

An intensified malaria control plan was launched in Malaysia in 1996. ITNs were provided for more than 700 000 people and over 400 additional primary health-care volunteers were trained in diagnosing and treating malaria in the high-risk area of Sabah. By 2003 the overall recorded annual number of malaria cases in Sabah had fallen to 1770 – down from 49 863 in 1995.

RBM SUCCESS : EPIDEMICS AVERTED

Carefully targeted insecticide spraying combined with other interventions aimed at high-risk areas have cut malaria cases in Sri Lanka to their lowest figure since 1967, and the country has not had a malaria epidemic since 1992.

RBM SUCCESS : QUICK RESULTS

A nationwide effort to increase ITN use in Togo in 2004 combined the distribution of ITNs with door-to-door visits and community social mobilization activities to inform people about the importance of protecting their children. The campaign demonstrated unprecedented success in raising ITN coverage within only a few days.

RBM SUCCESS : TARGETING HIGH-RISK AREAS

In Mexico, a programme of "focalized treatment" consisting of improved treatment, destruction of mosquito larvae and indoor residual spraying in specific target areas successfully interrupted malaria transmission throughout much of the country.

RBM SUCCESS : GOING TO SCALE

In 2002 the Government of Malawi embarked on a dramatic scale-up in distribution of ITNs. Widespread and equitable access to the nets was the objective. Heavily subsidized ITNs were given out through maternal and child health clinics; others were distributed through community networks and sold through the private sector. Today Malawi has one of the largest ITN distribution programmes in Africa and has shown that net distribution can work nationwide.

"When I learned that malaria kills so many people just because they can't get simple medicine or a net to sleep under, I said, 'This is not possible, we must do something'."

Youssou N'Dour, Musician, describing the motivation for *Africa Live – Roll Back Malaria Concert*, Dakar, 12-13 March 2005

THE AMERICAS

The number of reported malaria cases throughout South America and Central America and the Caribbean is low and has remained stable at less than four cases per 1000 people per year since 1990. But the risk of malaria transmission remains nevertheless in nine countries that share the Amazon rainforest and in eight countries in Central America and the Caribbean. Migrant populations who have not developed immunity and are working in gold mining and forestry also remain at risk of isolated epidemics. All affected countries implement national control strategies using appropriate combinations of insecticide residual spraying, destruction of mosquito larvae in high-risk areas, ITNs and drug treatments.

higher cost puts ACTs beyond the reach of many of the households where the need is greatest. RBM partners are supporting efforts to make ACTs accessible to people in need. Also, priority is now being given to the development of new, inexpensive and easy-to-use diagnostic tests that can help ensure that ACTs are used only when really necessary.

Still, the formidable ability of the malaria parasite to develop rapid resistance to new drugs, and of the mosquitoes to become resistant to new insecticides, means that researching, developing and manufacturing new drugs and insecticides will continue to be of paramount importance. There is also now potential for an antimalarial vaccine, although this has proven more complex and is taking longer than expected.

Poverty is another major obstacle. One of the significant breakthroughs of recent years has been the mounting evidence that ITNs offer highly effective protection. But the effort to increase the numbers of children sleeping under ITNs has been hampered by the gap between what the nets cost and what families can and will pay for them. Now prices are being pushed down by increasing competition, cutting taxes and tariffs and distributing free-of-charge nets to the poor and most vulnerable. At the same time, demand is being increased by health education and marketing. The RBM partners are also working to encourage companies, especially in Africa, to manufacture the latest generation of treated mosquito nets that have insecticidal properties woven into the fabric and are longer-lasting.

Many of the communities struck hardest by malaria are far from any medical facility. And many who fall ill are so poor that they do not have the means to travel. So RBM partners advocate teaching mothers, shopkeepers and other local people to recognize the symptoms of malaria and treat the disease at home with effective medicines.

Measuring progress in control measures is a difficult task requiring nationally representative surveys in rural and urban areas. The *World Malaria Report 2005* has been able to draw on information from national malaria control programmes, household surveys, health information systems and special studies. And new tools – such as the Malaria Indicator Survey – are being developed to fill the information gaps that exist. Such comprehensive and accurate data are making it possible to monitor progress and in turn to maintain momentum, focus efforts and extract maximum advantage from available resources.

The United Nations Decade to Roll Back Malaria 2001-2010

Malaria is a problem to which answers are available. The know-how, the plans and the technologies are all in place. And they are beginning to work. Just two things stand in the way of taking treatment and prevention measures to scale: a shortage of funds and a shortage of in-country capacity to put plans into action on the ground. This is the decade to take action: the time is now.

WHO estimates that around US$ 3.2 billion each year is required to finance effective malaria control worldwide. Governments in malaria-affected countries are committed to increasing their own resources for malaria control, and multilateral and bilateral donors have helped to provide extra money. The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) is also an important international funding source. But still the funds available fall far short of what is needed.

The drive to strengthen health systems, build organizational capacity and improve the infrastructure for supply and delivery on the ground in malaria-affected countries will also require commitment and cooperation between the global community and the local communities of people who live their lives under threat from the disease.

Above all it is clear that malaria-related disease and deaths are being reduced not by good fortune but by a long process of research, investment, training, advocacy, legislation, implementation, information sharing and scientific improvements. And as the regional comparisons in the *World Malaria Report 2005* dramatically demonstrate, many countries still have a long way to go. It is the potential for genuine long-term and sustainable control of malaria that will provide the inspiration, the motivation and the energy for further progress. And in broad terms, it is a potential that can be measured by the gap between the success rates in some countries and the failure rates in others.

The RBM Partnership was launched against a disease that was rapidly gaining ground. The efforts made since then mean that this is no longer true. But the *World Malaria Report 2005* makes it clear that fully reversing the trend is going to require more resources and more hard work in the years to come.

In the words of Professor Jeffrey Sachs, Director of the Earth Institute at Columbia University and Special Advisor to United Nations Secretary-General Kofi Annan,

"Comprehensive malaria control is the lowest-hanging fruit on the planet. For just US$ 3 per person per year in the rich countries, it is possible to fund the comprehensive control of malaria in Africa, ensuring universal access to live-saving nets, effective medicines, and other control measures. Millions of lives in the coming years can be saved, with profound economic benefits as well. This is an historic bargain too great to miss."

Prevention and treatment...

Insecticide-treated nets

ITNs protect people sleeping under them from malaria because they kill mosquitoes or prevent them from biting. Properly used, ITNs can cut malaria transmission by up to 90% and reduce child deaths from all causes by a fifth.

Protecting pregnant women

Intermittent preventive treatment – a dose of an antimalarial medication given twice during pregnancy – can be administered to pregnant women via antenatal clinics and can prevent malaria. Sleeping under an ITN can further protect pregnant women and their unborn children from the dangers of malaria.

Indoor residual spraying

Killing mosquitoes by spraying dwellings with insecticides that leave a residue on walls is a highly effective method for stopping the spread of malaria – especially during epidemics and emergency situations.

...the interventions that work

Pre-empting epidemics

Sudden malaria epidemics can be foreseen using technologies such as weather forecasting and the regular collection of data from epidemic-prone districts. Predicting and then rapidly responding to epidemics can dramatically cut the number of cases.

Effective antimalarial drugs

Traditional antimalarial drugs have lost their clinical effectiveness as parasitic resistance has grown. But new generation artemisinin-based combination therapies (ACTs) are highly effective and life-saving in all but the most advanced cases.

Home management

Prompt treatment at home can mean the difference between life and death among people who live in rural areas and have limited access to health facilities. Home management of malaria – which involves education and training of mothers and provision of prepackaged high-quality medicines – allows families to care for their own children effectively.

The *World Malaria Report 2005* is the first comprehensive effort by the Roll Back Malaria Partnership to take stock of where the world stands in relation to one of its most devastating diseases. It reveals that the tide may be beginning to turn against malaria as control and prevention programmes start to take effect.

The full report will be available from 3 May 2005.

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Roll Back Malaria Partnership at **www.rollbackmalaria.org**
WHO at **www.who.int/malaria**
UNICEF at **www.unicef.org**

Since 2002, the WHO Roll Back Malaria Department has systematically compiled information on malaria burden and control in a global database. The contents of this database are available online via WHO's Global Atlas of Infectious Diseases at **www.who.int/globalatlas/autologin/malaria_login.asp**

A full set of the country profiles is also available online at **www.who.int/malaria**