



Fighting Malaria on the ‘River of Life’

Roll Back Malaria Zambezi Expedition

A Comprehensive Approach

Malaria has been brought under control and even eliminated in many parts of Asia, Europe and the Americas. Yet in Africa, with very efficient mosquito vectors, increasing drug resistance and struggling health systems, malaria infections have actually increased over the last three decades. Infections worldwide now number between 350 to 500 million cases a year, with over a million deaths, mostly among the young in Africa.

Experts agree that to control malaria, and ultimately to ensure that families can live malaria-free lives, a comprehensive approach is necessary. Such an approach involves providing insecticide-treated bed nets, spraying the inside walls of houses with insecticides, providing access to diagnosis and anti-malarial drugs, and providing a packet of interventions through strengthened antenatal care services for pregnant women. Underpinning these four is education—empowering families and communities with the knowledge and resources to combat this disease. Additionally, while we work to control malaria through available tools, we need to continue to support the development of a vaccine.

Bed Nets:

Long-lasting insecticide-treated bed nets (LLITNs) work by creating a protective barrier against mosquitoes at night, when the vast majority of transmissions occur. The African malaria mosquitoes generally bite late at night or dawn, between 10pm and 4am. Most mosquito nets can accommodate more than one person – a mother and an infant or a few siblings – for up to three to five years. A net treated with special insecticides offers about twice the protection of an untreated net, and through its repellency, can even protect other people in the room outside the net. When enough people (about 70 percent) sleep under LLITNs, entire communities, even houses without an LLITN, can be made safer.

Killing Mosquitoes (Indoor Residual Spraying)

While LLITNs are generally effective in Africa wherever they can be consistently used, sometimes specialized teams are organized to

spray an insecticide on the inside walls of houses (a process known as Indoor Residual Spraying, or IRS). This helps kill the female mosquito after she feeds on a person, reducing malaria transmission to others. In some special circumstances, teams are also organized to eliminate or treat mosquito breeding sites with another type of environmentally-friendly insecticide. However, because the African malaria mosquitoes are so prolific and have such a broad range of breeding habits, this type of "larval control" may only be applicable in some areas, as determined by local assessment.

Anti-Malarial Drugs

Artemisinin-based combination therapies (ACTs) are the most effective drugs currently available for treating malaria. New cheaper ACTs need to be developed and strategies to deliver them need to be implemented and evaluated so they can be accessed by the people who need them. The Bill & Melinda Gates Foundation and the Medicines for Malaria Venture are helping to develop new drugs; while the President's Malaria Initiative, Global Fund to Fight AIDS, Tuberculosis and Malaria, and the World Bank's Booster Program for Malaria Control in Africa are working with Ministries of Health on delivery and access issues.

In addition to artemisinin-based combination therapies, pregnant women can be helped by administering at least two monthly treatment doses of sulfadoxine-pyrimethamine (SP) during the second and third trimesters of pregnancy. More than 70 percent of pregnant women in Africa attend antenatal clinics at least once during their pregnancy. A regime of SP helps protect pregnant women from possible death and anemia and also prevents malaria-related low birthweight in infants, which causes about 100,000 infant deaths annually in Africa. Malaria No More will work with these and other groups to coordinate the research and distribution of ACTs and SP.

Education

Whether it is around how to properly and consistently use a bed net, how to recognize the illness in a child and take appropriate measures (like administering new artemisinin-based combination therapies), how to protect pregnant



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women and unborn children, or the importance of indoor residual spraying, efforts also have to be directed at educating families in Africa about malaria. One of the most important early messages is that LLITNs work. While there are other types of mosquitoes that bite during the day or early evening, the malaria mosquitoes bite late at night, and LLITNs are far more cost effective than aerosols or burning mosquito coils.

Development of a Vaccine

At the same time that we work to control malaria through available tools, we need to continue to support the development of a vaccine.

As with any disease, finding a vaccine to protect individuals from malaria would create the best possible defense. Around the world, from Sweden to Kenya, from Australia to the United States, world class physicians are working on this important research. However, the malaria parasites have proven to be remarkably adaptable, meaning they change their characteristics as antibodies are developed; this adaptability has made finding a vaccine especially challenging. Most experts agree that the world is at least a decade away from any sort of effective vaccine. In the meantime, we need to concentrate on providing solutions for prevention and treatment that exist today.

(Source: Malaria No More, www.malarianomore.org)



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