

The World Vision Malaria Initiative FREQUENTLY ASKED QUESTIONS

What is malaria?

Malaria is a deadly disease that is transmitted by mosquitoes. The parasite that enters the human body from a malaria-infected mosquito results in serious and often fatal consequences. Flu-like symptoms initially characterize the infection, often with fevers, chills and aches. However, more serious complications can also develop if it is left untreated, leading to respiratory distress, seizures, coma and even death. Cerebral malaria is the most serious manifestation of the disease. If not treated promptly, cerebral malaria almost always leads to death. In areas where malaria is common and present year-round, individuals can be infected several times in a single year. Multiple infections in early childhood lead to partial immunity, and less severe disease in older children and adults.

How is malaria transmitted?

Malaria is transmitted to humans through the bite of an *Anopheles* mosquito infected with the malaria parasite. The malaria parasite is found in the saliva of an infected mosquito, which is injected when it “bites” an individual. The parasite travels through the blood stream and quickly invades the liver. In the liver, the malaria parasite replicates over several days, eventually bursting from the liver cells, and infecting red blood cells that circulate throughout the body. The parasite replicates within the infected red blood cells until these rupture sending parasites to infect other red blood cells. It is the red blood cell stage that causes an individual to feel sick. Some blood-stage parasites eventually develop into a form that can be transmitted to an *Anopheles* mosquito when it feeds on an infected individual. After a series of changes in the mosquito, it is able to infect another individual, completing the cycle.

There are four species of the malaria parasite that typically infect humans, the most deadly of which is *Plasmodium falciparum*. The three other species are *P. vivax*, *P. ovale* and *P. malariae*. The *Plasmodium* species varies based on geographical region and the local species of *Anopheles* mosquito.

Who does malaria affect?

People directly affected by malaria:

An estimated 250 million people each year become infected with the parasite. The disease kills nearly a million people, annually; 85 percent are children under age 5. That’s 2,000 children dying each day, or one every 40 seconds, making it the fourth leading cause of death for children under five worldwide. In Africa, malaria is among the top two killers of children.

Children and pregnant women suffer the most. Young children are particularly at risk of malaria illness because they have not yet developed any immunity to the parasite. Among those children who survive, many miss or fall behind in school due to chronic anemia and repeated malaria episodes. Malaria harms both pregnant women and their unborn children, causing about 10,000 maternal deaths each year. Malaria parasites often infect the placenta, decreasing the flow of essential nutrients, and leading to miscarriages, stillbirths, low birth-weight babies, and increased risk of neonatal death.

People indirectly affected by malaria:

Approximately 3.3 billion people, or roughly half the world's population, are at risk of contracting malaria. Though not all individuals living in these regions will succumb to malaria infection, non-infected individuals are greatly impacted by the disease. Malaria threatens economic growth on both a local and global scale. Approximately \$12 billion in economic productivity is lost annually in sub-Saharan Africa alone. People who are sick with malaria are often too ill or weak to work, resulting in lost income. Studies have shown malaria can cost households as much as a third of their entire monthly income. Medicines are often unavailable or unaffordable, creating financial burdens that can have a catastrophic impact on poor families. Analysis shows malaria control to be highly cost effective in sub-Saharan Africa; a package of malaria preventive interventions is the second most cost effective health intervention after immunizations (Roll Back Malaria Global Malaria Action Plan).

Is malaria contagious?

Malaria is considered an infectious disease, because it is transmitted from one person to another. Malaria is contagious, but not in the way one might typically expect, such as through direct contact with another individual. Transmission of malaria requires a carrier or “vector” – the *Anopheles* mosquito – which is responsible for passing the parasite from person to person.

Where is malaria most common, and why?

Malaria is found on five of the seven continents, most commonly in the tropical regions of Africa, Asia and Latin America. Sub-Saharan Africa bears the greatest burden, where approximately 90 percent of all deaths occur. The primary reason most deaths occur in sub-Saharan Africa is because the most lethal malaria parasite, *Plasmodium falciparum*, is the predominant species found there. Malaria has also been referred to as a disease of poverty, as it is most commonly found among – and has its greatest impact on – the poorest populations. While there are multiple factors, a significant reason for this is that poor households are often unable to afford the basic items needed to protect themselves from becoming infected with malaria, nor to treat the disease when a family member becomes sick. Another reason for malaria's great impact on poor populations is that it is often fatally linked with hunger and undernutrition.

Can I get infected with malaria in the United States?

Malaria was eliminated from the United States nearly 60 years ago, and thus it is highly unlikely that someone could contract malaria in United States. However, it is possible for Americans traveling abroad to regions where malaria still exists to be bitten by mosquitoes infected with the parasite, and since they have no immunity, become extremely ill with malaria. Cases of malaria in the United States today are almost always traced to individuals becoming infected in another country.

Are malaria and HIV and AIDS connected?

Malaria and HIV and AIDS are often referred to as the “deadly duo,” because their combination can prove lethal. Each year, more than 3 million people die from malaria and AIDS combined. Malaria infection in an HIV positive individual temporarily increases the viral load heightening the risk of transmitting HIV to another person.

Can malaria be prevented? How?

Malaria is preventable using proven, cost-effective measures at the community level. Simple measures such as sleeping under a long-lasting insecticidal bed net or having the house interior walls sprayed with insecticide (Indoor Residual Spraying) can prevent infection.

Treated bed nets cost as little as \$6 to obtain and deliver to a household. For \$18, World Vision is able to purchase and deliver treated nets to an entire family, including hanging the net in the house and providing training for proper use. Nevertheless, those most at risk often do not have access to bed nets or Indoor Residual Spraying (IRS).

Can malaria be treated?

Malaria can be treated with anti-malarial medicine. There is no single type of drug used and length of treatment can vary depending on the type of malaria, the place where the person contracted the parasite, their age, whether they are pregnant, and how sick they are at the start of treatment. Unfortunately, drug-resistance has developed in many parts of the world to some older anti-malarial medicines, so new combination therapies are often the most effective treatments. Artemisinin-based combination therapies are the most effective treatments available today. In order for the treatment to be effective, the patient should be treated early. (<http://www.cdc.gov/malaria/faq.htm#10>)

Receiving prompt diagnosis and treatment are proven to be effective in dramatically reducing the impact of this deadly disease. However, communities affected by malaria may not have access to or may not be able to afford medical consultation and treatment.

Can malaria be eliminated?

Malaria has already been eliminated in some countries, as it was in the United States 60 years ago. With existing tools, renewed focus on combating the disease, increased investment and good coordination between governments, non-governmental organizations and local communities, malaria can be eliminated in many regions of the world. However, global eradication will likely require the introduction of additional tools, such as a vaccine.

So far, though, donor governments and international humanitarian organizations have been unable to generate sufficient resources and public interest to eliminate the disease in a large part of the world.

What is World Vision doing about it?

In June 2008, World Vision launched a major initiative that aims to reduce the illness and death caused by malaria. World Vision has committed to significantly increasing funding to help protect and treat children and their families at risk of malaria, and will contribute to filling the global shortage of insecticide-treated bed nets by expanding their distribution in the communities where we work.

World Vision operates in 62 of the 109 countries where malaria is endemic, 23 of which are in Africa, and in 13 of the 15 countries targeted in the U.S. President's Malaria Initiative. We have experience implementing malaria interventions at the community level, including the distribution of long-lasting insecticidal nets and anti-malarial drugs.

Our goal for highly malaria-endemic countries is to have all children and their families in areas where World Vision works sleeping under bed nets by 2012, and to contribute to a 75 percent reduction in malaria cases and near zero deaths from malaria by 2015. To this end, we initiated Operation Safety Net, a program in partnership with the Against Malaria Foundation that will provide 3 million nets in Zambia, Mozambique, Kenya and Mali, protecting 6 million people from malaria.

We are also pressing the international community to do more to combat malaria, recognizing that ending the disease is not possible without greater resources and strong coordination between governments, businesses, civil-society organizations, non-governmental organizations, and local citizens. Thus, World Vision is working to

ensure the U.S. government keeps its commitment to provide at least \$1 billion a year to combat global malaria, and is advocating for improved coordination among the international community.

World Vision is committed to raising awareness of the global burden of the disease, expanding delivery of prevention tools and anti-malaria treatments to communities at risk, partnering with socially responsible corporations to provide resources to vulnerable communities, and calling on governments and the international community to support the long-term goal of eradication by fully investing in malaria prevention and control efforts worldwide.

What is the U.S. government doing to help?

In 2005, President Bush started the President's Malaria Initiative (PMI), a five-year, \$1.2 billion program to address malaria in 15 target countries through prevention and treatment efforts. PMI has assisted in developing national malaria control plans to reduce malaria deaths by 50 percent and reach 85 percent of vulnerable individuals (children under five and pregnant women) with prevention and treatment by 2010.

In July 2008, Congress passed and the President signed into law the Global AIDS, Tuberculosis and Malaria bill that included, among other items, an authorization for \$5 billion over five years for malaria activities. However, this legislation served only as guidance to the level of funding the U.S. government will provide each year for malaria. As such, the actual yearly U.S. contribution to malaria is dependent upon the annual appropriations bills. In FY 2008, the U.S. Government provided \$350 million for malaria and the Bush Administration requested \$385 million for FY 2009.

It is estimated that the United States will need to contribute at least \$1 billion per year, along with other nations and the United Nations, if the long-term goal of eradication of malaria is to be achieved.

How can I help?

Advocate: [Send a message to your government leaders](#) urging them to increase the U.S. contribution to fight malaria.

Pray: [Pray](#) for health and fullness of life for those vulnerable to malaria. Pray for the collective will to eradicate malaria, once and for all.

Give: \$20 will provide treated [bed nets](#) for a family, including training in their use. Single gifts of \$35-\$70 will be multiplied three-fold to supply nets, community education and treatment for vulnerable individuals. Or, sponsor a child from a malaria-endemic country at www.worldvision.org.

Visit www.endmalaria.org to learn more.