

More than half the world's population is at risk from malaria, with up to 500 million cases each year and more than one million deaths directly resulting from the disease. Those at highest risk from the disease are people living in endemic areas, travelers to endemic areas, small children and pregnant women. Malaria is a constant risk to the overall health of the global population.

Treatment of malaria depends on the species of infecting parasite, the area where the infection was acquired and its drug resistance status, the clinical status of the patient, any co-morbidities, pregnancy, drug allergies or other medications taken by the patient. Proper treatment of malaria will shorten its duration, prevent complications and help to avoid the majority of deaths. Currently the best available treatment is a combination of drugs known as artemisinin-based combination therapies (ACTs). This therapy works rapidly and has little or no resistance to date. In order to protect against the development we must combine drugs with

different mechanisms of action against the same stages of the parasite.

Malaria prevention includes vector control, chemoprophylaxis use and the future possibility of vaccine use. Vector control is achieved with the use of insecticide treated mosquito nets and indoor residual spraying of insecticides. Education is essential for the traveler and they must be fully versed in the use of long sleeves, pants and footwear that provides full coverage. Chemo prophylactic drugs are very effective in preventing disease with the exception of chloroquine and sulfadoxine– pyrimethamine which have high rates of resistance. Thus mefloquine is the most commonly used drug by travelers in recent times. There are no vaccines currently available to prevent malaria but there are many under development with the pre-erythrocytic candidate RTS,S/AS0 being the most ready for commercial release.

The economic tolls of malaria as thrown some developing countries into a downward spiral of poverty. The disease has caused a drop in GDP by as much as 1.3% and has accounted for up to 40% of public health expenditures.