



AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

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Malaria Issue Brief 1st Session, 111th Congress (2009)

The American Society of Tropical Medicine and Hygiene (ASTMH) – the nation’s leading professional organization for tropical medicine – represents 3,300 researchers and clinicians engaged in the battle against infectious and tropical disease in the United States and internationally. ASTMH promotes world health through research and education to prevent and control tropical diseases.

As part of our efforts, we advocate implementation and funding of federal policies and programs that seek to reduce, prevent, and control myriad infectious tropical diseases, including, but not limited to, malaria.

For the 1st Session of the 111th Congress (2009), our public policy efforts are focused principally on issues related to malaria control. ASTMH supports and encourages Congress and the Administration to expand funding for – and commitments to – international malaria control initiatives. ASTMH supports balanced appropriations for malaria control and malaria research and development, along with sustaining and increasing support for the President’s Malaria Initiative (PMI) and the Global Fund for AIDS, Tuberculosis, and Malaria (Global Fund).

ASTMH Capacity in Global Malaria Control

ASTMH counts among its members the world’s foremost experts in malaria control, with expertise ranging from basic science to field research.

What is Malaria?

- Malaria is a global health emergency that primarily affects children under the age of five in Africa. The World Health Organization (WHO) estimates there were 350 to 500 million malaria cases in 2000 and at least one million deaths from malaria.
- Malaria is an acute and often fatal disease caused by a single-celled parasite that is transmitted to humans by the female *Anopheles* mosquito, and can cause anemia, jaundice, kidney failure, and death. Despite being treatable and preventable, malaria is one of the leading causes of death and disease worldwide.

- WHO estimates that one half of the world's people are at risk for malaria, and that 109 countries are endemic for malaria.
- Malaria-related illness and mortality not only take a human toll, but also severely impact economic productivity and growth. The WHO has estimated that malaria reduces sub-Saharan Africa's economic growth by up to 1.3 percent per year.

What Can Be Done to Treat and Prevent Malaria?

Malaria is both preventable and treatable using four types of relatively low-cost interventions: (1) the indoor residual spraying (IRS) of insecticide on the walls of homes; (2) long-lasting insecticide-treated nets (LLIN); (3) Artemisinin-based combination therapies (ACTs); and (4) intermittent preventive therapy (IPT) for pregnant women.

- Bed nets are particularly effective at killing mosquitoes and, as such, can significantly lower the risk of contracting malaria. While some *Anopheles* mosquitoes are becoming increasingly resistant to DDT, pyrethroids, and other insecticides, bed nets remain a highly-effective method of preventing malaria.
- Highly-effective malaria drugs, notably ACTs, are available and when patients receive these drugs promptly their lives can be saved.

However, the currently available interventions are not reaching, or being utilized by all individuals and communities in need. Financing, logistics, and political attention to malaria have, until recently, not been adequate to address the enormous burden that malaria places on communities, mainly in rural Africa.

What About a Malaria Vaccine?

Researchers continue to seek to develop an effective malaria vaccine to immunize individuals against malaria infection. The complexity of the *Plasmodium* life cycle has made it difficult to create an effective vaccine. There are now several very promising candidate vaccines in clinical trials. However, it will be at least 5-10 years before any of these could be available for use.

Malaria Related Death, Illness and Suffering Can be Greatly Reduced with Strategic Investments

Until malaria is conquered, it will continue to ravage the most vulnerable populations of the world's most impoverished nations, leading to death, disease, and the continuing cycle of poverty and illness.

ASTMH maintains that the battle against malaria requires funding for a comprehensive approach to disease control, including public health infrastructure improvements, mosquito abatement initiatives, increased availability of existing anti-malarial drugs, development of new anti-malarial drugs and better diagnostics, and research to identify an effective malaria vaccine. The U.S. Agency for International Development (USAID) and the CDC are using lessons learned from their long experience in malaria control and prevention efforts, as well as CDC's

research into more promising methods, as the agencies work to implement the PMI, which supports an integrated package of malaria interventions. The Global Fund has played a leading role in fighting AIDS, TB, and malaria around the world and now provides two-thirds of all donor-funding for malaria.

These public and private collaborative initiatives are exciting and delivering concrete results. Additional funds and a greater commitment from the federal government are necessary to continue to make progress in malaria prevention, treatment, and control; these efforts are the building blocks to greatly reducing malaria-related death, illness, and poverty.

ASTMH calls upon the Congress and the Administration to dedicate significant new resources to support a comprehensive effort to eradicate malaria, including providing full funding for the PMI and increasing appropriations to the CDC, NIH, USAID, DOD, and the Global Fund for their malaria programs. In addition ASTMH calls on Congress to develop appropriate oversight procedures to monitor the effectiveness of all federally-funded malaria efforts.