

## Malaria: Blood, Sweat, and Tears

4/20/2011

The mosquito kills more people than any other creature in the world. That's one startling message from *Malaria: Blood, Sweat, and Tears*, a fascinating public health exhibit now showing at the Global Health Odyssey Museum on CDC's Roybal campus in Atlanta.

### Malaria Part of CDC's Roots

Malaria is in CDC's DNA, said CDC Director Tom Frieden, MD, MPH, speaking at the opening of the exhibit. "CDC has a long history and connection with malaria. It actually stemmed from a wartime agency, Malaria Control in War Areas, designed to help keep the southeast US malaria-free during World War II." CDC's mission to combat malaria began at its inception on July 1, 1946. And while malaria was eliminated in the US in the late 1940s, approximately half of the world's population is still at risk.

The exhibit, which captures those risks in eye-catching ways, was conceived and produced by the Malaria Consortium and award-winning photographer Adam Nadel, explains Global Health Odyssey museum Director Judy Gantt. "The exhibit uses a variety of media, including photographs, stamps, illustration, and 3-dimensional objects, such as mosquito nets, to discuss the history, science, and global impact of malaria."

That impact is staggering. In 2008, malaria caused an estimated 243 million cases of malaria and 863,000 deaths. Although cases occur across the globe, 85 percent of the world's malaria deaths occur in Africa, where a child dies from malaria every 45 seconds and the disease accounts for up to 40 percent of public health expenditures.

### From United Nations to CDC

The exhibition opened at the United Nations' main gallery in spring 2010 with the support of Vestergaard Frandsen (an emergency response and disease-control company that manufactures bed nets) in cooperation with the Roll Back Malaria Partnership. Now it is at CDC. The opening reception was sponsored by Vestergaard Frandsen with the help of the CDC Foundation.

The exhibition puts a human face on this devastating disease, a disease which threatens 3.3 billion people. "Almost half the world population is at risk," noted Frieden. "It's a public health problem in more than 100 countries. Fifty thousand visitors come to our museum every year from around the US and around the world. Having this exhibit here will spread the word about malaria and CDC's work to prevent and control it."

The need for prevention is critical. A tiny mosquito can be a killing machine, striking with stealth, attacking without provocation. Malaria is caused by a parasite carried by the Anopheles mosquito. People with malaria typically are very sick with high fevers, shaking chills and flu-like illness, and they can die if they do not receive proper medical treatment. Pregnant women and children under 5 who have little to no immunity are more likely to become severely ill and die.

Photographer Adam Nadel traveled to a number of malaria-endemic countries, including Nigeria, Uganda and Cambodia, building up a poignant portfolio of images for the exhibition. The collection educates the viewer on the devastating impact of malaria on communities, the history of the disease, and the science that underpins a positive way forward. The images provide highly personal stories of the physical, emotional, economic and scientific spectrum of malaria, illustrating the impact of the disease on families, health workers, malaria researchers and local communities.

### CDC Foundation Supports CDC Mission

CDC Foundation CEO Charlie Stokes said, "Malaria, certainly, is an area where CDC has a rich history. Exhibits like this one give CDC a platform to talk about what's going on now - to highlight the key challenges and



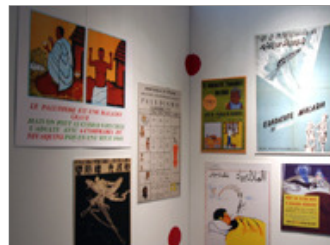
Photographer Adam Nadel answers questions at the opening of the exhibit *Malaria: Blood, Sweat and Tears*. Photo by Kathy Nellis



CDC Director Tom Frieden and Torben Vestergaard Frandsen discuss efforts to fight malaria during a tour of the exhibit. "There is considerable hope," says Frieden. "Malaria is preventable and treatable." Photo by Kathy Nellis



CDC Foundation CEO Charlie Stokes says, "Exhibits like this one give CDC a platform to talk about what's going on now" to highlight the key challenges and successes in their ongoing fight against malaria worldwide." Photo by Kathy Nellis



The exhibit uses a variety of media, including photographs, stamps, illustration, and 3-dimensional objects, such as mosquito nets, to discuss the history, science, and global impact of malaria. Photo by Kathy Nellis

successes in their ongoing fight against malaria worldwide... These exhibits, and the opportunity to invite people to come and experience them and meet the artists and other individuals involved, are opportunities to elevate important public health issues and showcase CDC's work in those areas."

The Foundation, a sponsor of the reception and exhibition, is the sole entity authorized by Congress to raise private funds in support of the mission and work of the CDC. "Thanks to partners and supporters, since 1995, the CDC Foundation has provided \$300 million to support CDC's work, launched more than 500 programs around the world, and built a network of individuals and organizations committed to supporting CDC and public health," explained Stokes.

Bed nets are just one of the many success stories of recent global malaria efforts by CDC Foundation and by multiple partners worldwide. In the last 10 years, enough insecticide-treated bed nets had been purchased and delivered to sub-Saharan Africa to cover three-quarters of the 765 million people living in areas where malaria is transmitted.

**CDC's malaria program:**

- Implements the President's Malaria Initiative, a US government initiative led by USAID and jointly implemented by USAID and CDC to cut malaria deaths in 17 sub-Saharan Africa countries and the Greater Mekong subregion; provides technical assistance to the Amazon Malaria Initiative, another US government initiative to strengthen malaria prevention and treatment measures in countries where multi-drug resistance is a major problem. Both initiatives are part of the US Global Health Initiative;
- Partners with [Global Fund to Fight AIDS, TB, and Malaria](#), the [World Bank](#), [Roll Back Malaria](#), [UNICEF](#), and Ministries of Health to help achieve global malaria goals;
- Provides technical expertise to Ministries of Health and partners worldwide in policy development, program guidance and support, scientific research, and monitoring and evaluation of progress toward Roll Back Malaria goals;
- Conducts strategic and applied research to better understand malaria and develop safe, effective interventions for its prevention and control;
- Works to prevent the resurgence of malaria in the US by monitoring cases brought back to the US ("imported" cases), responding to infrequent outbreaks in the US, and providing guidance to protect US travelers.

"There is considerable hope, says Frieden. "Malaria is preventable and treatable. And there has been progress in the fight against malaria. Deaths decreased more than 10 percent from 2008 to 2009. And 11 of Africa's 43 endemic countries have reductions greater than 50 percent in either confirmed cases or deaths over past decade. The numbers show that investments in malaria control are effective and current strategies work. We need to work together; we need to be persistent in our efforts."

Learn more when you visit the exhibit.

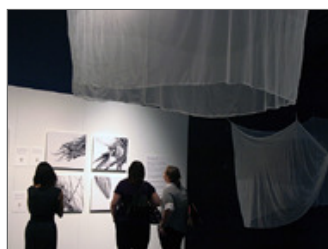
Patrick Kachur, MD, a medical epidemiologist and chief of the Strategic and Applied Sciences Unit in the Malaria Branch, DPDM, CGH, says, "One of the more interesting things for me was the gleaming new Hudson-brand spray pump on display near the end of the exhibit. It is a simple looking, but precisely engineered piece of equipment carefully calibrated to apply just enough insecticide to the indoor walls of houses. In the past seven years, CDC has helped revive spray programs across Africa and deployed hundreds of workers with these devices. Just down the stairs, in the permanent exhibit is a nearly identical—albeit, well worn—of the same equipment used to help eliminate malaria from the US more than 60 years ago. Together they demonstrate the continuity of commitment and persistence that CDC has applied to address this global public health issue."

*Malaria: Blood, Sweat, and Tears* is at the GHO through May 20, 2011. The museum is open Monday through Friday, 9:00 a.m. – 5:00 p.m., with hours extended on Thursday to 7:00 p.m. The museum is closed on all federal holidays.

For more on malaria, watch for a story on World Malaria Day, April 25, coming in **CDC Connects**.



One of the many eye-catching photos in the exhibit, which is on display in the GHO through May 20.



Bed nets, lifesaving tools in the fight against malaria, hang from the ceiling as visitors enjoy the exhibit. *Photo by Kathy Nellis*



Distinguished guests at the opening celebration include: Charlie Stokes, CDC Foundation; Ellen Dotson, S.P. (Patrick) Kachur, and Robert Wirtz, CDC's Division of Parasitic Diseases and Malaria; Torben Vestergaard Frandsen; Adam Nadel, photographer and curator; Whitney Addington, Malaria Consortium, and Mikkel Vestergaard Frandsen CEO of Vestergaard Frandsen. *Photo by Kathy Nellis*

This *Inside Story* by Kathy Nellis.

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