

IRI Writing Assignment
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In support of her candidacy as Communications Officer
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Please note: this piece was developed as a one-page "flyer" that could be printed for distribution or adapted for the Web. All of the images are for placement purposes only and should not be considered as final format. The target audience for this piece is the general public.

References:

Web-based climate information resources for malaria control in Africa by Emily K Grover-Kopec, M Benno Blumenthal, Pietro Ceccato, Tufa Dinku, Judy A Omumbo and Stephen J Connor.

www.malariajournal.com/content/5/1/38

CDC Web site, www.cdc.gov/malaria

UN Millenium Development Goals Web site, www.un.org/millenniumgoals

IRI's *A Gap Analysis for the Implementation of the Global Climate Observing System Programme in Africa*, 2006

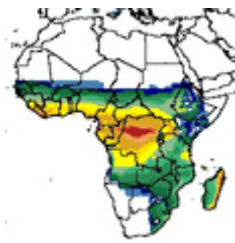
Phone conversation with Dr. Emily Grover-Kopec, 25 August 2006

Climate and Malaria Resource Room

"Each year, 350–500 million cases of malaria occur worldwide and over one million people die, most of them young children in sub-Saharan Africa."

As this sobering quote from the U.S. Centers for Disease Control and Prevention (CDC) indicates, malaria goes uncured in large parts of the world. A key factor in the incidence of this preventable disease is climate. Local and seasonal climate changes can create the ideal conditions for malaria to thrive. Left unchecked, these conditions can quickly lead to epidemic outbreaks that tax local and regional resources.

IRI's Climate and Malaria Resource Room (CAMRRoom) provides information on climate variability in the most vulnerable part of the world—Africa. Within this virtual workspace are interactive maps, climate "snapshots," and other geographic tools developed with the end users—malaria control workers—in mind. CAMRRoom offers new hope for disease planning and preparedness in areas that need it most. To help users take full advantage of these tools, IRI provides training at local, regional, and national levels.



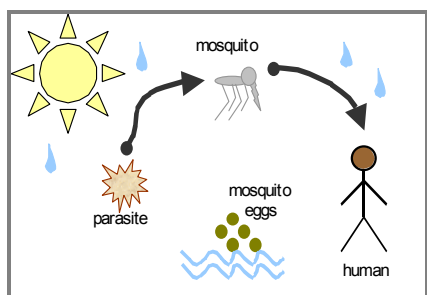
[CAMRRoom map of endemic/epidemic regions]

What is epidemic malaria?

In certain parts of Africa, particularly below the Sahara Desert, climate and local conditions are so variable that people cannot build up and sustain immunity to malaria. Highest at risk are children under 5 years of age, women who are pregnant, and travelers from other countries. In these populations, a malaria outbreak can occur suddenly and severely.

How is malaria transmitted?

The spread of malaria depends on interactions between three kinds of organisms: parasites, mosquitoes, and humans. The carrier is a one-celled parasite. To complete its life cycle, this parasite needs a host. One of its hosts is the *Anopheles* (an-AHF-uhl-eez) mosquito. If bitten by an infected mosquito, humans may become unwitting hosts to the malaria parasite.



Path of malaria transmission

Why is climate information useful?

The *Anopheles* mosquito requires certain climate conditions for its survival. The "best" conditions for the mosquito are

- sufficient rainfall to create "breeding sites" where the mosquito can lay eggs and its young can develop
- warm air temperatures
- relative humidity above 60%

Climate also influences people's behaviors, which can affect their chances of contracting the disease. For example, agricultural workers may sleep in nearby fields during harvest season, without protective nets. It is not surprising that, where malaria control measures are lacking, its distribution is closely linked to local climate.



[vignette photo]

What is the CAMRRoom's role?

CAMRRoom is an important piece of an advanced, integrated approach to forecasting and controlling epidemic malaria. Here are searchable collections of climate data and interactive maps showing current, past, and predicted conditions. The tools are automatically updated as new climate data become available.

CAMRRoom's resources are especially useful in assessing the potential risk of epidemic malaria. Regarding its use, "Feedback has been very positive," says Dr. Emily Grover-Kopec of IRI. Customized tools that "are developed with the users in mind and with their input" can be created as needed within days or weeks.