

Experts split on global warming, highland malaria link

November 28 2010, by Boris Bachorz



Women wash clothes in a river formed by the melting snow of the Rwenzori mountains near Bundibugyo in western Uganda on May 2009. Malaria cases in east African highland areas hitherto unaffected by the disease have caused worry that global warming is creating new mosquito breeding grounds but experts disagree on whether there is actually any link between the two.

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"We have recently seen waves of epidemics in highland areas. ... They have actually killed people," said Dr. Amos Odiit, who was until October head of clinical paediatrics at Mulago hospital in the Ugandan capital Kampala.

The first cases of [malaria](#) in Uganda's western Kabale region, which rises 2,000 metres above sea level, were reported in 2007, said Seraphine Adibaku, the head of the national programme against malaria.

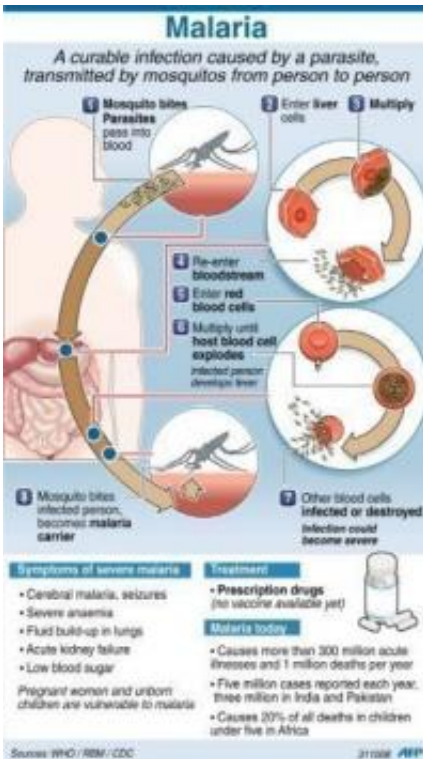
"It is [climate change](#). Kabale is not as cold as before," she added.

Climatologists say Africa has become warmer by 0.7 degrees Celsius over a century, favouring the spread of malaria as mosquitoes that carry the parasite thrive in warmer climes and cannot survive in temperatures below 15 degrees.

However, linking [global warming](#) and increase in malaria has remained one of the most contested debates of the effects of climate change.

For Kenyan doctor Andrew Githeko, who leads a research project into climate change and human health, the relationship between the two phenomena is clear.

"There is a very direct link between malaria and climate. As climate changes further, more areas will become suitable for transmission" of the malaria parasite, argued Githeko.



Graphic factfile on malaria. Malaria cases in east African highland areas hitherto unaffected by the disease have caused worry that global warming is creating new mosquito breeding grounds but experts disagree on whether there is actually any link between the two.

Citing his research at Tumutumu hospital in central Kenya, a region that stands 1,768 metres above the sea, Githeko says average temperatures there have risen and remained above 18 degrees and malaria infections have increased.

But the theory is just a juxtaposition according to other experts who explain that the spread of malaria is determined by the effectiveness of public health interventions and a country's state of economic development.

Contrary to the theory that malaria has increased due to rising global

temperatures, the disease has not spread any further than it had in the past century, said Simon Hay of Oxford University.

"Our study shows clearly there has been no expansion of malaria in the last 100 years," he said, referring to a recent research entitled "Malaria Atlas Project."

"It has systematically retreated from the temperate regions to the tropics," he added.

"The success or failure of our efforts against the parasite in the coming century are likely to be determined by factors other than climate change."

Many researchers however seem to agree that while there is a theoretical relationship between climate change and rising malaria infections, this trend can be curbed by robust public health drives.

Ninety-one percent of the 881,000 malaria deaths every year occur in Africa, but Rwanda, Sao Tome and Eritrea have slashed deaths by 50 percent between 2000 and 2006 through distribution of medicines and bed nets, according to Roll Back Malaria, a global coalition against malaria.

Rory Nefdt, a UNICEF official in charge of malaria control in east and southern Africa, conceded that climate change creates favourable conditions for the spread of malaria, but says public health programmes can, if implemented properly, outweigh the effects of climate change.

"I do believe that the malaria control programmes that have been implemented are having a much greater beneficial effect against the parasite."

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