TARGET MALARIA
A Vector Control Research Alliance

Press release

The goal of eliminating malaria by 2030 is in jeopardy

Africa could see 554,000 additional malaria deaths due to climate change, unless urgent action is taken.

The goal of eliminating malaria by 2030 is in jeopardy, as climate change, population growth, and funding shortfalls converge to reverse hard-won gains over the past decade.

"Shifting temperature and rainfall patterns are expanding and altering malaria risk zones, which will continue to disproportionately affect vulnerable populations, especially children under five," says Dr. Patric Epopa, researcher at the Health Sciences Research Institute (IRSS) and Field Entomology Coordinator at Target Malaria Burkina Faso.

According to a climate impact model developed by Boston Consulting Group and the Malaria Atlas Project to predict changes in extreme weather events and to estimate their impact on malaria deaths to the year 2049, the increase in extreme weather events is reshaping malaria risk. The findings indicate:

- Between 2030 and 2049, climate change is expected to cause 554,000 more malaria deaths than if today's climate remained unchanged. This is despite some regions seeing reduced transmission rates. Extreme weather events will drive 92% of these additional deaths.
- Stepping up malaria control with current tools could reduce the additional deaths, but climate change may weaken their impact by up to 17%, making progress fragile.
- By 2050, climate change will make malaria eradication harder for 75% of sub-Saharan Africa's population,equating to 1.3 billion people.

"Extreme weather is one of the biggest drivers of malaria spikes," says the researcher. "Displaced communities are often left unprotected without mosquito nets, indoor spraying, or access to early diagnosis and treatment."

According to African Leaders Malaria Alliance's (ALMA) 2024 Africa Malaria Progress Report and the WHO, the continent accounted for 95% of global malaria cases and 97% of global deaths in 2023, which are 251 million infections and nearly 580,000 lives lost, mostly children under five.

"Without urgent, coordinated action, we risk undoing decades of progress and failing an entire generation of African children, warns Epopa."

View of the village of Bana, Burkina Faso. Credit: Target Malaria

Innovation must match the scale of the malaria crisis

Despite widespread use of insecticide-treated nets (ITNs) and artemisinin-based combination therapies (ACTs), many regions continue to suffer high malaria burdens due to insecticide resistance and environmental factors that reduce the effectiveness of these tools.

In Burkina Faso, for example, malaria remains the leading cause of death among young children, despite major investments in control programs.

That's why scientists and public health experts are urgently turning to next-generation technologies to complement traditional approaches.

One promising innovation is gene drive technology. Not-for-profit research consortium, Target Malaria, is developing gene drive technology, a type of genetic modification, to reduce the population of malaria-transmitting mosquitoes and reduce the transmission of the disease.

"Gene drive isn't a silver bullet, but we hope that it could dramatically cut transmission by reducing the number of female mosquitoes, the Anopheles mosquito, which bites and spreads malaria," says Patric Epopa.

Mathematical modelling studies suggest that gene drive could significantly reduce mosquito populations, particularly in West Africa, if integrated into national malaria strategies.

"Now more than ever, we need bold tools and local innovation to stay ahead of this disease," adds Patric Epopa. "African governments must also embed malaria control into broader systems, like primary healthcare, gender equity, and climate resilience if we want lasting impact."

Without bold action now, the vision of a malaria-free Africa by 2030 may become another missed milestone.

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About Target Malaria

Target Malaria is a not-for-profit research consortium that aims to develop and share new, cost-effective and sustainable genetic technologies to modify mosquitoes and reduce malaria transmission. Our vision is to contribute to a world free of malaria. We aim to achieve excellence in all areas of our work, creating a path for responsible research and development of genetic technologies, such as gene drive. www.targetmalaria.org

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