

## Press release

# Human behaviour and science, together, can defeat malaria

Kampala, Uganda, January 21, 2025/African Media Agency (AMA) / — Significant progress has been made in combating malaria, but the battle seems to have stalled, with the WHO's 2024 World Malaria Report noting that there were 11 million more cases of the disease in 2023 than there were in 2022. Another 600,000 people died from the disease in 2023 with no significant improvement compared to 2022.

Approximately 95% of deaths caused by malaria are in the African region, where many people still lack access to the services they need to prevent, detect and treat the disease - and half those deaths were in four African countries - Nigeria (30.9%), the Democratic Republic of Congo (11.3%), Niger (5.9%), and Tanzania (4.3%).

Nigeria (26%), the Democratic Republic of Congo (13%), Uganda (5%), Ethiopia (4%), and Mozambique (4%) carry the heaviest burden of cases. Eleven African countries still account for two-thirds of the global malaria burden, and despite improved political commitments to addressing the issue, it's clear that more still needs to be done.

Climate change has contributed to the proliferation of malaria in the region, with extreme weather events making it more difficult to sustain and expand prevention and treatment initiatives. According to the Malaria Atlas Project, working with Boston Consulting Group, climate change could lead to an extra 550,000 deaths due to malaria by 2050, with more than 90% of these caused by loss of protection caused by extreme weather.

"While vector control is a highly effective way to reduce malaria transmission, studies also suggest that human behaviour and social factors can contribute to reducing malaria cases in specific areas," says Dr. Martin Lukindu, Post-Doctoral Research Associate at the Uganda Virus Research Institute (UVRI) working for <a href="Target Malaria">Target Malaria</a> in Uganda. "Changing people's behaviours and encouraging them to make different choices are some of the most effective ways to help prevent the disease."

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"People in malaria areas face so many challenges that they sometimes forget to use mosquito nets, or to go for regular preventive treatments, while many struggle to afford the medication. Traditional remedies are also used to treat the disease and reduce its symptoms" he adds. "Science is working to eradicate malaria, and the 86.9% of parents in Uganda that take their children with a fever to seek medical attention shows that change is possible. However, science cannot work alone - people in affected areas need to actively avoid mosquito bites by doing what they can at home."

Dr. Lukindu highlights the steps that countries and individuals can take to protect their families and themselves from malaria:

## 1. Use treated mosquito nets

It's so important for everyone to use insecticide-treated mosquito nets - even in low transmission areas. Nets that are treated with dual-active ingredients are the most effective, particularly against mosquito species that have developed resistance to some insecticides. These dual-active nets accounted for more than 78% of the 195 million nets distributed in sub-Saharan Africa in 2023 - 59% more than in 2022.

#### 2. Vaccinate children

So far, 17 African countries have included the malaria vaccine as part of routine childhood immunisations. These will be even more effective if they are used with other malaria prevention tools.

#### 3. Seasonal medication

Monthly doses of antimalarial medication during peak malaria season is effective in protecting children under five years old - the group most likely to suffer severe malaria. The number of African children treated per cycle rose from 170,000 in 2012 to 53 million in 2023, with this step now implemented in 19 countries.

### 4. Treat early, treat well

Seek medical treatment as soon as symptoms like fever, headaches, nausea, shivering and chills start happening. Antimalarial medicines are widely available in high risk areas, and are easy to take and quick to help.

## 5. Protect pregnant women

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Malaria can be deadly for expectant mothers and their fetuses. Malaria in pregnancy can be prevented in areas of moderate to high malaria transmission via at least three doses of preventive treatment in the second trimester.

## 6. Invest and trust in malaria research

Many research groups in the world are working to develop new tools to fight malaria. It's important to continue to provide investment to these efforts. Communicating to the right audiences about these new tools is fundamental to make sure that all those concerned will be willing to listen, understand and trust.

Not-for-profit organisations like Target Malaria are using gene drive technology, a type of genetic modification, to reduce the population of malaria-transmitting mosquitoes and reduce the transmission of the disease. A recent <a href="mathematical">mathematical</a> modelling study investigated how gene technology could offer a long-term and cost-effective way to control malaria, especially in the largely rural areas that carry the bulk of the disease's burden.

"Each person can make simple changes to their daily lives to protect themselves against malaria," adds Dr. Lukindu. "Learning more about the early warning signs will also help make sure that treatment is sought early, to avoid serious illness."

"Target Malaria shares regular information, such as posters, videos, theatre productions, and radio programs in communities in Burkina Faso, Ghana and Uganda to help drive more education about the disease."

Recently, the organisation announced the launch of <u>Target Malara: The Game</u>, a digital game that's accessible to everyone, even in low-connectivity areas, and is available for free in both French and English on Itch.io. The game invites players to step into the role of a lab technician specialising in the genetic modification of mosquitoes, allowing players of all ages and backgrounds to explore the potential of genetically modified mosquitoes as a promising tool to fight malaria.

"Our scientists are working to genetically modify strains of mosquitos so we can end malaria in our lifetime and save hundreds of thousands of African lives. Until this happens, communities across Africa can make small changes to their behaviour, and by engaging in the resources available to them to deal with the disease now," concludes Dr. Lukindu.

### **ENDS**

Distributed by African Media Agency (AMA) for Target Malaria.

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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

Target Malaria receives core funding by the Bill & Melinda Gates Foundation and Open Philanthropy. The lead grantee organization is Imperial College London with partners in Africa, Europe and North America.

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