

Rise in malaria cases sparks fears of a resurgence

Progress in the fight against a curable disease that kills hundreds of thousands of children has stalled, according to the World Health Organization.

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Sukree Sukplang/Reuters

A child is tested for malaria at a clinic in western Thailand.

The number of malaria cases rose in many countries in 2016, suggesting that progress has halted in the global fight against the disease, the World Health Organization (WHO) said in a report on 29 November¹.

Globally, malaria infections increased by about 5 million from 2015 to 2016, for a total of 216 million, with apparent jumps in parts of Asia, Africa and South America. The number of people who died from

the disease remained relatively steady, at around 445,000, the WHO found. Although data on malaria is often inexact in countries with weak health-care systems, many researchers are concerned by the trends described in the WHO report, which the agency attributes to flat funding levels for anti-malaria programmes.

“For the first time, we can confidently say that we have stopped making progress,” says Pedro Alonso, the director of the Global Malaria Programme at the WHO in Geneva, Switzerland. Alonso worries that governments and donors have become complacent about malaria, given that deaths from the disease fell by an estimated 62% between 2000 and 2015. “We know what happens when we stop applying pressure,” Alonso says. “Malaria comes back with a vengeance.”

Access to treatment

When governments listed malaria reduction as one of the United Nations’ Millennium Development Goals in 2000, billions of dollars in funding flowed in from the Global Fund to Fight AIDS, Tuberculosis and Malaria and other donors, and death rates began to drop. One of the strongest pushes involved getting the gold-standard cure for the disease — pills called artemisinin-combination therapies (ACTs) — to remote regions. Children are at particularly high risk of death if malarial fevers are not treated within a couple of weeks.

Strategies for lowering the cost of ACTs to less than a few dollars per treatment course and to distribute the drugs to health workers have been relatively successful over the past decade. The Global Fund estimates that the malaria-control programmes it has helped to fund have provided 668 million malaria treatments.

And the spread of rapid diagnostic tests for malaria have likely helped to delay the development of drug resistance, by limiting the number of children who are treated for suspected, but not confirmed, cases of the disease. The percentage of suspected cases tested in sub-Saharan Africa — the region hit hardest by malaria — increased from 36% in 2010 to 87% in 2016.

That does not mean that everyone who needs treatment is getting it. Between 2014 and 2016, 39% of African children under the age of five who developed fevers were not taken to a trained health-care provider, the WHO report says, citing household surveys. The percentage of children receiving care for fevers is often used as an indication of how many may have sought treatment for malaria, although it is an imperfect measure.

“If you ask me, the number-one priority must be to ensure that people stop dying of a disease that is entirely curable,” says Alonso.

Resistance fears

The spread of drug-resistant malaria is also a worry. Strains of *Plasmodium falciparum*, the parasite that causes the most deadly form of the disease, have become resistant to artemisinin in Thailand, Cambodia, Myanmar, Laos and Vietnam.

Southeast Asia accounts for just 3% of the world's malaria cases. But if drug-resistant malaria spreads from Asia to Africa, where 90% of *P. falciparum* cases occur, it would wreak havoc, says Nick White, a malariologist at the Mahidol Oxford Tropical Medicine Research Unit in Bangkok, Thailand. “There is a narrow window of opportunity to eliminate malaria in southeast Asia before we lose the drugs, and it’s shutting,” White says. “Time is running out.”

Next week at a meeting in Nay Pyi Taw, Myanmar, researchers and government officials from across southeast Asia will discuss how to accelerate malaria elimination. Achieving that goal by 2030 in a 22-nation area stretching from Afghanistan to Vanuatu would cost around US\$29 billion, according to an analysis by the Global Health Group, a think-tank at the University of California, San Francisco. But it would also save roughly \$90 billion over that period from reduced health-care costs and gains in productivity, the group found.

Nonetheless, the money available for malaria-elimination programmes has been dropping². A review of 75 malaria resurgences between 1930 and 2011 found that most upticks in the disease followed funding disruptions that weakened malaria-control programmes³. Other causes included conflict and natural disaster.

However, François Nosten, a malariologist at the Mahidol Oxford Tropical Medicine Research Unit facility in Mae Sot, Thailand, would like to see more data. “We need to have a clear understanding of what needs to be done,” he says. “The solution is not just about money.”

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References

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3. Cohen, J. *et al. Malaria J.* **11**, 122 (2012).