

Drug-resistant malaria is spreading across Southeast Asia, study warns



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(CNN) Drug-resistant strains of malaria are spreading across Southeast Asia, raising fears of a "potential global health emergency," two new studies have found.

The [reports were published](#) Monday in The Lancet, warning that a multi-drug-resistant strain had evolved and was spreading across Thailand, Cambodia, Laos, and Vietnam.

The new findings come as countries and health experts struggle to fight the parasitic disease. There have been some successes -- Algeria and Argentina were declared malaria-free in May -- but in other places, cases have been rising significantly.

The evolution of the resistant strains in Southeast Asia has had "disastrous consequences," researchers said -- they have rendered a widely-used drug essentially ineffective, leading to treatment failures at "alarmingly high rates."



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The drug, dihydroartemisinin-piperaquine (DHA-PPQ), has now reached a 62% failure rate in western Cambodia, 27% in northeastern Cambodia, 53% in southwestern Vietnam, and 87% in northeastern Thailand, researchers said in a [statement](#).

The original strain of resistant malaria first spread across western Cambodia in 2008. Since then, it has evolved and mutated into several new subgroups of resistant parasites, said the studies, which were conducted by several institutes including the Wellcome Sanger Institute and the University of Oxford.

The speed at which the subgroups have spread to neighboring countries suggest "enhanced fitness" and "an increased survival advantage," said the researchers, who urged countries to stop using DHA-PPQ.

"This highly successful resistant parasite strain is capable of invading new territories and acquiring new genetic properties, raising the terrifying prospect that it could spread to Africa where most malaria cases occur, as resistance to chloroquine did in the 1980s, contributing to millions of deaths," said Olivo Miotto, a researcher from the University of Oxford and the Wellcome Sanger Institute, in the statement.

Now that the DHA-PPQ drug is failing, countries need to adopt alternative treatments and speed up elimination of the resistant strains before they spread globally, his team warned.



Malaria on the rise in more than 13 countries, experts warn

This problem is both new, and not -- malaria strains have developed resistance to treatment drugs many times over the years, and often in Southeast Asia. [It was in this region](#) that malaria became resistant to chloroquine in the late 1950s, and to artemisinin in recent years.

Malaria, which is transmitted through the bite of female Anopheles mosquitoes, is both preventable and treatable -- yet an estimated 435,000 people die of it each year.

Between 2000 and 2015, there was a 62% reduction in malaria deaths, according to the World Health Organization (WHO), and a 41% reduction in the number of cases. However, more recent data suggests that malaria is making a comeback: a 2018 WHO report found malaria cases had risen significantly in 13 countries, and an increase of 2 million cases globally between 2016 and 2017.

"It's a difficult disease to deal with. The tools we have are modestly effective, but drugs and insecticides wear out; after 10, 20 years, mosquitoes become resistant," Adrian Hill, director of the Jenner Institute at the University of Oxford, told CNN earlier this year.

"There's a real concern that in 2020s, (cases) are going to jump back up again," he added.