

# Back on track towards malaria elimination – lessons and innovations



*The Lancet Regional Health – Western Pacific*

Malaria is an acute febrile illness threatening 241 million people in 85 countries and which deprived 627 000 people of their lives in 2020. Two of five parasite species that cause malaria in humans—*Plasmodium falciparum* and *Plasmodium vivax*—pose the greatest threat, transmitted to people through the bites of infected female *Anopheles* mosquitoes. Poverty and tropical location are intimately connected with malaria. Although the WHO Africa region accounts for 95% of malaria cases and deaths, the WHO Western Pacific region reported an estimated 1.7 million cases and 3200 deaths in 2020. Children younger than 5 years of age and pregnant women constitute the highest proportion of malaria cases and deaths.

Malaria is preventable and curable. WHO-recommended prevention tools—vector control and seasonal chemoprevention—are safe and cost-effective in reducing the global burden. Artemisinin-based combination therapy is currently the most effective antimalaria medicine, particularly for the deadliest *P falciparum* malaria. Over the past few decades, there efforts have greatly expanded globally towards the control and elimination of malaria, with the WHO Europe region achieving zero malaria in 2015 and 40 countries and territories certified as malaria-free by 2021. The global malaria case incidence reduced from 81 to 59 and deaths reduced from 896 000 to 562 000 over the period 2000–15; however, progress has stalled since 2015, hindered by some resurgences—55 countries reported an increase in cases between 2015 and 2017.

This stagnation in progress was further exacerbated in 2020, mainly due to the COVID-19 pandemic. According to the latest [World malaria report 2021](#), there was a 5% global increase in malaria incidence and 12% increase in malaria deaths in 2020 compared with 2019, with 47 000 additional deaths due to service disruptions during the pandemic. Only the WHO South-East Asia region met the 2020 milestone of [Global technical strategy for malaria 2016-2030](#) (GTS)—the current roadmap for malaria elimination, calling for a reduction in malaria case incidence and mortality rates

(compared with a 2015 baseline) of at least 40% by 2020 and 90% by 2030. In the WHO Western Pacific region, the GTS 2020 milestones for malaria morbidity was off target by 55% while mortality was off target by 53%. Increasing cases and deaths in Papua New Guinea, the Philippines, and the Solomon Islands have disrupted progress in the region. Other than the impact of COVID-19, missing the global target can also be attributed to other challenges—the existing hard-to-reach communities, destruction of ecosystems, emerging artemisinin resistance, mosquito resistance to insecticides, and invasive vector species.


In *The Lancet Regional Health – Western Pacific*, Sarthak Das and colleagues highlight the setbacks experienced by Bhutan and Timor-Leste whose malaria elimination efforts were hampered by the COVID-19 pandemic, and more importantly, propose key strategies to sustain progress. Of note, the paper calls for a whole-of-government approach, including sustaining political commitment, systemically collaborating across borders, empowering communities, and strengthening health systems through surveillance and data management. Some of these happen to coincide with China's experience in fighting malaria [from 30 million cases to zero](#). China launched its National Malaria Elimination Action Plan in 2010, which both reflects WHO's guidelines and incorporates responsive strategic adaptations. Remarkably, the implementation of the 1-3-7 surveillance and response strategy (case reporting within 1 day of case detection, case investigation and classification within 3 days, and targeted and tailored response activities within 7 days), the use of smaller administrative units for surveillance and case management, and the collaboration with border health facilities provide important clues for innovative explorations.

Additional innovative approaches are needed for new prevention strategies; more cost-effective, rapid, and accurate diagnosis especially for asymptomatic infections; treatment for artemisinin resistance; and for reaching the unreached at the societal level. Last year, WHO recommended the first-ever malaria vaccine, [RTS, S/AS01](#), for children at risk, based on the high safety and effectiveness data from a pilot programme launched in Ghana, Kenya, and Malawi. Adding a malaria vaccine into the routine child immunisation schedule will be a historic breakthrough for malaria prevention, at least for *P falciparum* malaria, and for child health. To ensure and expand access to the currently

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available tools among hard-to-reach communities, such as people living and working in remote forests and the minority Indigenous populations, [community-focused malaria interventions](#) are being implemented in Cambodia and Laos. Notably, Sarthak Das and colleagues emphasise the necessity of a gender-based perspective in the malaria elimination programme and the benefits of gender responsive strategies. The story of [the women tackling malaria in Vietnam's remote communities](#) shows us that enhancing women's active engagement in decision making and malaria programmes—who are often the primary caretakers of their households—helps

address potential biases and supports compliance in prevention and treatment. There have been signs of hope.

This year, [World Malaria Day 2022](#) is marked under the theme “Harness innovation to reduce the malaria disease burden and save lives”. It reminds us to learn lessons from countries that have experienced setbacks and use innovations from those that remain on the right trajectory. We have a clear target for malaria elimination and have had some extraordinary achievements, but going forward, we need to get back on track to lead us to a malaria-free future.