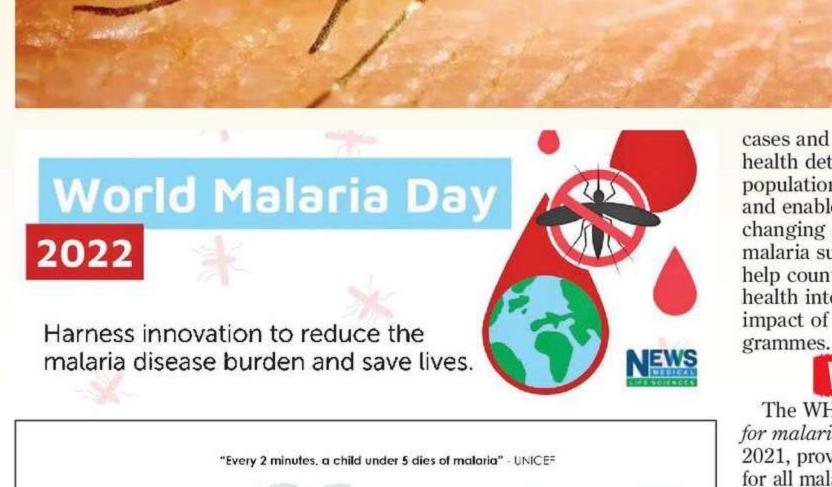


solve the problem of malaria. Innovative new tools are vital if the world is to achieve global elimination targets, including innovations in new vector control interventions and insecticides, improved diagnostics, and more effective medicines, among other tools. Under the theme "Harness innovation to reduce the malaria disease burden and save lives",this year's World Malaria Day has drawn attention to the critical role innovation plays in helping to achieve global elimination goals.

The six countries of the Greater Mekong subregion, including Cambodia, China (Yunnan Province), Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam continue to make progress in eliminating malaria, reporting a 97 percent reduction in malaria between 2000 and 2020. Malaria is an acute febrile illness caused by *Plasmodium* parasites, which are spread to people through the bites of infected female Anopheles mosquitoes. There are five parasite species that cause malaria in humans, and two of these species - P. falciparum and P. vivax – pose the greatest threat. P. falciparum is the deadliest malaria parasite and the most prevalent on the African continent. P. vivax is the dominant malaria parasite in most countries outside of sub-Saharan Africa.

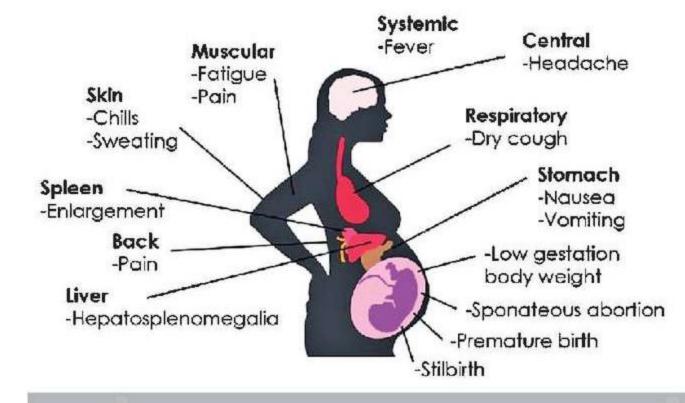
The first symptoms – fever, headache and chills – usually appear 10–15 days after the infective mosquito bite and may be mild and difficult to recognise as malaria. Left untreated, P. fal*ciparum* malaria can progress to severe illness and death within a period of 24 hours.

In 2020, nearly half of the world's population was at risk of malaria. Some population groups are at considerably higher risk of contracting malaria and developing the severe disease: infants, children under five years of age, pregnant women and patients with HIV/AIDS, as well as people with



There were an estimated An estimated 241 million 627,000 cases worldwide in 2020 of malaria deaths in 2020 The African region was home to 95% of malaria cases and 96% of malaria deaths

The Symptoms of Malaria



Over the last two decades, expanded

PREVENTION

According to the latest World malaria

report, there were 241 million cases of malaria in 2020 compared to 227 mil-

lion cases in 2019. The estimated num-

ber of malaria deaths stood at 627,000

in 2020 – an increase of 69,000 deaths

over the previous year. While about

two-thirds of these deaths (47,000)

were due to disruptions during the

COVID-19 pandemic, the remaining one-third of deaths (22,000) reflects a

recent change in WHO's methodology for calculating malaria mortality (irre-

The new cause-of-death methodology

spective of COVID-19 disruptions).

was applied to 32 countries in sub-

Saharan Africa that shoulder about 93

percent of all malaria deaths globally.

that malaria has taken a considerably

The WHO African Region continues

to carry a disproportionately high share

of the global malaria burden. In 2020,

the Region was home to 95 percent of

deaths. Children under five years of age

Four African countries accounted for

worldwide: Nigeria (31.9 percent), the

(13.2 percent), United Republic of Tan-

zania (4.1 percent) and Mozambique

accounted for about 80 percent of all

all malaria cases and 96 percent of

just over half of all malaria deaths

Democratic Republic of the Congo

malaria deaths in the Region.

(3.8 percent).

higher toll on African children every

year since 2000 than previously

thought.

Applying the methodology revealed

access to WHO-recommended malaria prevention tools and strategies – including effective vector control and the use of preventive antimalarial drugs - has had a major impact in reducing the global burden of this disease.

VECTOR CONTROL

Vector control is a vital component of malaria control and elimination strategies as it is highly effective in preventing infection and reducing disease transmission. The two core interventions are Insecticide-Treated Nets (ITNs) and Indoor Residual Spraying (IRS).

Progress in global malaria control is threatened by emerging resistance to insecticides among Anopheles mosquitoes. According to the latest World malaria report, 78 countries reported mosquito resistance to at least one of the four commonly-used insecticide classes in the period 2010–2019. In 29 countries, mosquito resistance was reported to all main insecticide classes.

Preventive chemotherapy is the use of medicines, either alone or in combination, to prevent malaria infections and their consequences. It includes chemoprophylaxis, Intermittent Preventive Treatment of infants (IPTi) and pregnant women (IPTp), Seasonal Malaria Chemoprevention (SMC) and Mass Drug Administration (MDA). These safe and cost-effective strategies are intended to complement ongoing malaria control activities, including vector control measures, prompt diagnosis of suspected malaria, and treatment of confirmed cases with antimalarial medicines.

Since October 2021, WHO also recommends the broad use of the RTS, S/AS01 malaria vaccine among children living in regions with moderate to high P. falciparum malaria

transmission. The vaccine has been shown to significantly reduce malaria, and deadly severe malaria, among young children. More than one million children in Ghana, Kenya and Malawi have received one or more doses of the world's first malaria vaccine, thanks to a pilot programme coordinated by WHO. The malaria vaccine pilots, first launched by the Government of Malawi in April 2019, have shown that the RTS, S/ AS01 (RTS, S) vaccine is safe and feasible to deliver, and that it substantially reduces deadly severe malaria.

CASE MANAGEMENT

Early diagnosis and treatment of malaria reduces disease, prevents deaths and contributes to reducing transmission. WHO recommends that all suspected cases of malaria be confirmed using parasite-based diagnostic testing (through either microscopy or a rapid diagnostic test). Diagnostic testing enables health providers to swiftly distinguish between malarial and non-malarial fevers, facilitating appropriate treatment.

The best available treatment, particularly for *P. falciparum* malaria, is artemisinin-based combination therapy (ACT). The primary objective of treatment is to ensure the rapid and full elimination of *Plasmodium* parasites to prevent an uncomplicated case of malaria from progressing to severe disease or death.

Over the last decade, antimalarial drug resistance has emerged as a

threat to global malaria control efforts in the Greater Mekong subregion. WHO is also concerned about more recent reports of drug-resistant malaria in Africa. Regular monitoring of drug efficacy is needed to inform treatment policies in malaria-endemic countries, and to ensure early detection of, and response to, drug resistance.

ELIMINATION

Malaria elimination is defined as the interruption of local transmission of a specified malaria parasite species in a defined geographical area as a result of deliberate activities. Continued measures to prevent the re-establish-

ment of transmission are required. In 2020, 26 countries reported fewer than 100 indigenous cases of the disease, up from six countries in 2000. Countries that have achieved at least three consecutive years of zero indigenous cases of malaria are eligible to apply for the WHO certification of malaria elimination.

Since 2015, nine countries have been certified by the WHO Director-General as malaria-free, including Maldives (2015), Sri Lanka (2016), Kyrgyzstan (2016), Paraguay (2018), Uzbekistan (2018), Argentina (2019), Algeria (2019), China (2021) and El Salvador (2021).

SURVEILLANCE

Malaria surveillance is the continuous and systematic collection, analysis and interpretation of malariarelated data, and the use of that data in the planning, implementation and evaluation of public health practice. Improved surveillance of malaria

cases and deaths helps ministries of health determine which areas or population groups are most affected and enable countries to monitor changing disease patterns. Strong malaria surveillance systems also help countries design effective health interventions and evaluate the impact of their malaria control pro-

WHO RESPONSE

The WHO Global technical strategy for malaria 2016-2030, updated in 2021, provides a technical framework for all malaria-endemic countries. It is intended to guide and support regional and country programmes as they work towards malaria control and elimination.

The strategy sets ambitious but achievable global targets, including: reducing malaria case incidence by at least 90 percent by 2030

- reducing malaria mortality rates by at least 90 percent by 2030
- eliminating malaria in at least 35 countries by 2030
- preventing a resurgence of malaria in all countries that are malaria-free. Guided by this strategy, the Global Malaria Programme coordinates the WHO's global efforts to control and
- eliminate malaria by: setting, communicating and promoting the adoption of evidencebased norms, standards, policies,
- technical strategies and guidelines; keeping independent score of glob-
- al progress; developing approaches for capacity
- building, systems strengthening, and surveillance; and
- identifying threats to malaria control and elimination as well as new areas for action.

MALARIA ACHIEVEMENTS

- China has reported zero indigenous malaria cases since 2017 and was certified malaria-free by WHO in 2021.
- In 2020, Malaysia had zero cases of human malaria for the third consecutive year but reported over 2,600 cases of P. knowlesi (zoonotic malaria).
- Two countries reported fewer than 1,000 malaria cases in 2020: the Republic of Korea and Vanuatu. Cambodia, the Lao People's Democratic Republic, Malaysia, the Republic of Korea, Vanuatu and Viet Nam all reported zero indigenous malaria deaths in 2020

CALL TO ACTION:

- Step up innovation in the fight
- against malaria Expand access to the tools we have
- Expand the use of the first malaria vaccine, RTS,S
- Strengthen country ownership Ensure resilient and equitable
- health systems Tailor responses to the local setting
- Improve surveillance systems. (UN News)