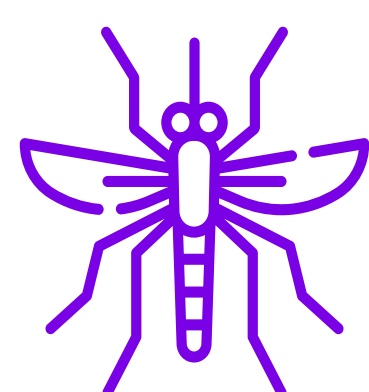


Travel & Endemic Newsletter

FEBRUARY 2024



DENGUE



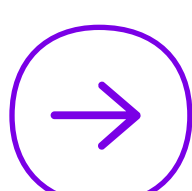
Prioritization of Vaccines for Travelers: A Post-COVID-19 Era Update

A literature search on the epidemiology of travel-related VPD and synthesized data for each disease with a focus on symptomatic cases and on the impact of the respective infection among travellers, considering the hospitalization rate, disease sequela and case fatality rate. The data summarized may provide a tool for travel health professionals to prioritize preventive strategies for their clients against VPD. Updated assessments on incidence and impact are ever more important since new vaccines with travel indications (e.g. dengue) have been licensed or are undergoing regulatory review.

Conclusions:

- Yellow fever has become more relevant for travelers given the recent trends in epidemiology, with an estimated risk of 1 case per 1,000 person-months in West Africa and 1 case per 10,000 person-months in South America.
- Hepatitis A has decreased globally with the improvement of vaccination programs and sanitation, although regional risk exists (highest in Africa).
- Dengue is a new VPD that is considered to occur more frequently than animal bites but less frequently than influenza.
- VPD risks are observed in travelers going to areas other than low- and middle-income countries (e.g., influenza, COVID-19, and tick-borne encephalitis).
- Incidence of VPD is one metric that should be considered in pretravel counseling and shared clinical decision-making. Other important considerations are acute impact of a given infection, health system coverage, cost of vaccine to a traveler, potential cumulative exposure of the traveler, and potential for long-term disability associated with an infection.

More at academic.oup.com



VACCINES DEVELOPMENT



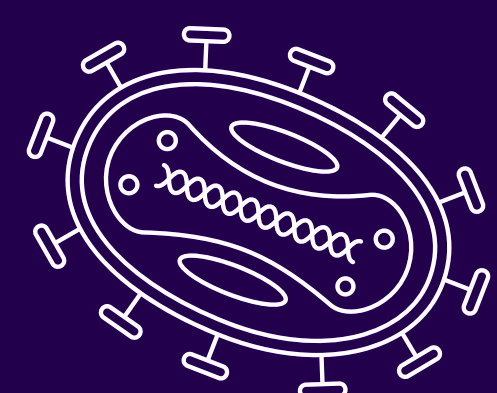
Live, Attenuated, Tetravalent Butantan–Dengue Vaccine in Children and Adults

- Butantan–Dengue Vaccine (Butantan-DV) is an investigational, single-dose, live, attenuated, tetravalent vaccine against dengue disease, but data on its overall efficacy are needed. In an ongoing phase 3, double-blind trial in Brazil, participants were randomly assigned to receive Butantan-DV or placebo, with stratification according to age. The objectives of the trial were to evaluate overall vaccine efficacy against symptomatic, virologically confirmed dengue of any serotype occurring more than 28 days after vaccination.
- Conclusions:
A single dose of Butantan-DV prevented symptomatic DENV-1 and DENV-2, regardless of dengue serostatus at baseline, through 2 years of follow-up.

More at nejm.org



ZIKA & DENGUE



Influence of previous Zika virus infection on acute dengue episode

The co-circulation of flaviviruses in tropical regions has led to the hypothesis that immunity generated by a previous dengue infection could promote severe disease outcomes in subsequent infections by heterologous serotypes. This study investigated the influence of antibodies generated by previous Zika infection on the clinical outcomes of dengue infection.

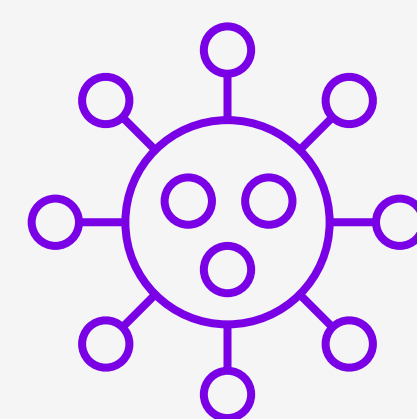
In this study, the prior Zika virus infection was associated with a higher frequency of more severe forms in subsequent dengue. Preliminary findings did not suggest that the mechanism is the same one triggered in secondary dengue, known as antibody-dependent enhancement.

More at journals.plos.org



* About the Impact of prior dengue virus infection on Zika virus infection during pregnancy in marmosets you can [read here](#) (was published in the September 23 Travel & Endemic Newsletter edition)

DISEASE OUTBREAKS



ZIKA

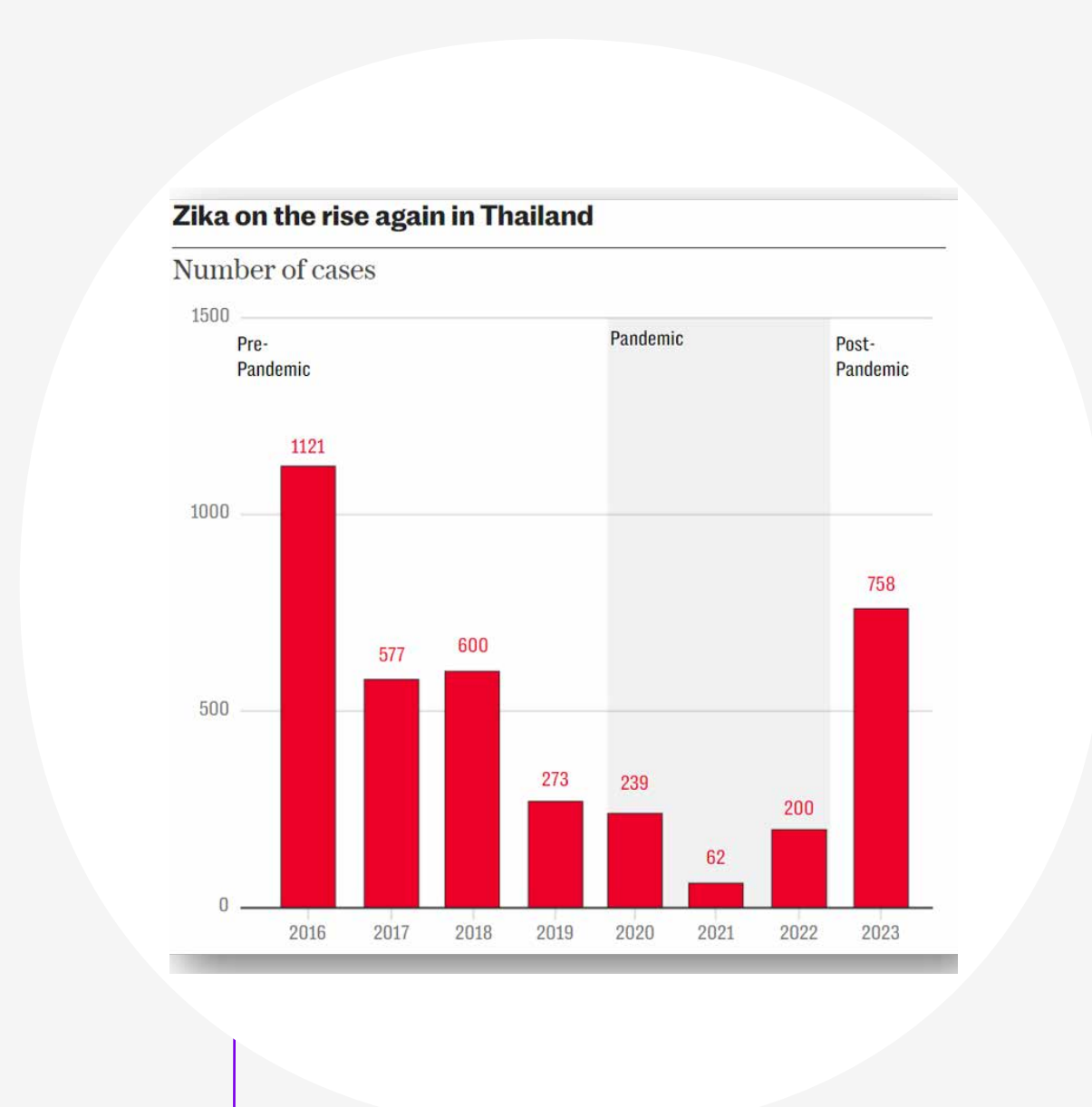
Thailand reports more than 300% increase in Zika infections in 2023

Zika has surged to levels not seen since before the pandemic in Thailand, with more than 750 people infected and at least 13 babies born with birth defects in 2023.

The pathogen has long circulated in the southeast Asian nation, but cases jumped by almost 300 per cent last year as the virus, carried by the *Aedes aegypti* mosquito, resurfaced following several years of limited transmission.

A coordinated effort, combining data sharing, integrated control programs, community engagement, and innovative methods, is essential to curb the spread of arboviruses like Zika and protect public health in Thailand.

More at [telegraph.co.uk](https://www.telegraph.co.uk)



Source:
● *ministry of public health thailand*

ZIKA In Mali

The Mali Ministry of Health (MOH) reported 12 confirmed Zika cases in December 23 from the Barnako region.

More at outbreaknewstoday.substack.com



ZIKA In Singapore

There were 22 Zika cases in Singapore in the first half of 2023. A total of 15 cases were found in a cluster at Kovan. The cluster is now closed and is currently under surveillance.

More at [channelnewsasia.com](https://www.channelnewsasia.com)



DENGUE

South America dengue spike: South America is seeing a surge in cases of the mosquito-borne disease dengue during the southern hemisphere summer.

Argentina has seen a sharp spike in the disease that's endemic in much of Latin America. **Brazil** this month has started spraying insecticide from trucks as the disease rips through previously unaffected regions. hospitals in **Paraguay** have set up night clinics to attend to the sick due to elevated dengue activity.

More at [gulf-times.com](https://www.gulf-times.com)



Dengue cases in Brazil nearly triple: High rainfall and temperatures associated with El Niño phenomenon and climate change have caused cases of dengue fever in Brazil to triple in the first few weeks of 2024. Health officials predict record case numbers this year of between 1.7 million and 5 million. Brazil will become the first country in the world to offer a dengue vaccine through the public health system.

More at [laprensa-latina.com](https://www.laprensa-latina.com)



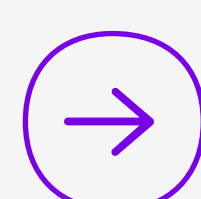
Costa Rica's Dengue Cases: As 2024 unfolds, Costa Rica finds itself grappling with an unwelcome guest that refuses to leave – dengue fever. This mosquito-borne menace has been a thorn in the side of this tropical paradise for years, impacting both locals and tourists alike. With over 1,000 cases confirmed early in the year, the situation is buzzing with concern.

More at [costaricantimes.com](https://www.costaricantimes.com)



Peru increase in dengue cases: The Peru Ministry of Health (Minsa) issued an epidemiological alert on January 31 due to an increase in dengue fever across the country.

More at outbreaknewstoday.substack.com



MEASLES

Measles outbreaks in U.S. and across England:

The sudden outbreak of measles has sounded alarm bells among experts in the **US**, **Europe** and several parts of **Asia**.

The World Health Organization (WHO) recently announced a 30-fold increase in measles cases across Europe and has called for urgent action to close immunity gaps through vaccination. The number of cases in the European region has skyrocketed to 42,200 in 2023, compared to 941 in 2022.

The Center for Disease Control and Prevention (CDC) has issued a health alert as measles cases are on the rise. The CDC explains that the outbreaks are mostly among children who have not been vaccinated.

Also, CDC recommends vaccination before traveling abroad.

More at [healthline.com](https://www.healthline.com)



A map of U.S. states showing those (shaded red) that have had cases of measles recorded by health officials this year as of February 6, 2024, and the locations of the cases. © Newsweek/Getty



International health officials have reported elevated measles activity in multiple areas in **England**, especially West. Local health officials have urged the public to get their measles vaccinations up to date to prevent disease transmission.

More at [crisis24.garda.com](https://www.crisis24.garda.com)



The UK Health Security Agency (UKHSA) has declared a national incident.

More at [healthline.com](https://www.healthline.com)



Kazakhstan has seen the highest number of measles cases, with 13,677 recorded in 2023, 65% of which were in children under five.

More at [weforum.org](https://www.weforum.org)



Sri Lanka experiencing an imported Measles outbreak

Sri Lanka is currently experiencing an imported Measles outbreak since May 2023. considerable number of cases are reported to date predominantly among vaccine refusal communities and subsequently spreading to those who were partially vaccinated (between 9 months - 3 years) or not eligible for MMR vaccination through routine immunization programme (< 9 months of age). As a response measure to this situation, the Ministry of Health has launched a Supplementary Immunization Activity (SIA) on 6th January 2024, targeting vulnerable children (6 – 9 months of age) in selected high-risk districts.

More at epid.gov.lk



Measles outbreak in Israel among unvaccinated individuals

The Health Ministry knows of 20 reported cases of the disease in recent months, two in the Haifa area, six in the north, 10 in Tel Aviv, one in Netanya, and one in Jerusalem all contracted measles.

More at jpost.com



Due to the increase in the incidence of measles in the world together with the state of emergency in Israel and the extensive evacuation of citizens, there is concern of measles outbreaks in additional centers. Therefore, The Ministry of Health issued national interim guidelines for raising awareness, preventative and treatment guidelines in the various medical settings and health bureaus. The guidelines are based on current recommendations of the American Association of Pediatricians (RedBook) with adjustments for Israel, according to recommendations Advisory Committee on Infectious Diseases and Vaccines.

Link to *Guidlines*



POLIO

Kenya declares polio outbreak

Kenya confirmed a polio outbreak, raising concerns about the contagious disease's resurgence in the country after a decade, prompting the government in Nairobi to announce the launch of emergency vaccination campaigns in high-risk areas, targeting more than 7.5 million children in affected counties. Fourteen cases of polio have been confirmed as of Jan. 27. All cases have been detected in Garissa County, which is located in northeastern Kenya, as well as in the capital Nairobi. Kenya successfully eradicated wild poliovirus in 2014 and was declared polio-free.

More at aa.com.tr



CHOLERA OUTBREAK

- After decades of progress against cholera, the disease has seen a global upsurge since 2021. In 2023 over half of the countries reporting cases were from Africa.
- Door-to-door vaccination starts to fight **Zimbabwe cholera outbreak**. Zimbabwe launched a cholera vaccination campaign to immunise over 2 million people against the waterborne disease. Cholera had killed 452 people and infected a total of 20,446 in the southern African country as of Jan 24, since the outbreak started in February 2023, according to health ministry statistics. About half of the cases have involved children.

More at dunyanews.tv



Somalia Floods Trigger Cholera Outbreak

The **IRC** (International Rescue Committee) said: “The outbreak presents a grave public health crisis, with the majority of cases being severe and affecting the most vulnerable population.”

More at news.yahoo.com



Zambia Battles Worst Outbreak In Decades

Zambia is among the latest to battle its worst outbreak in decades and it's vaccination rollout is under pressure as stocks face increased global demand.

More at bbc.com



HEPATITIS E

A deadly Hepatitis E outbreak in South Sudan

Doctors Without Borders/Médecins Sans Frontières (MSF) announced that since April 2023, they have treated 501 cases of Hepatitis E at the MSF hospital in Old Fangak, Jonglei state. In addition, 19 deaths were reported, primarily in women. This has prompted MSF to launch a mass vaccination campaign in collaboration with the Ministry of Health to safeguard women and girls of reproductive age, who are at greatest risk of death from the disease.

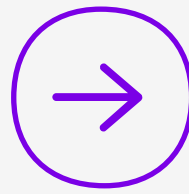
More at doctorswithoutborders.org



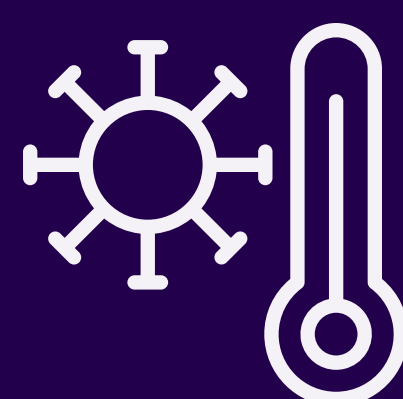
A spike in hepatitis E infections in Finland

The National Institute of Health and Welfare (THL) is investigating the reasons for the increase. In January 24, 19 people fell ill due to a hepatitis E infection in different parts of the country. In 2023, only one hepatitis E infection was reported.

More at foodsafetynews.com



MALARIA

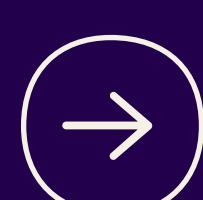


Assessing the daily natural history of asymptomatic Plasmodium infections in adults and older children in Katakwi, Uganda

This longitudinal cohort study aimed to classify the natural history of Low-density asymptomatic Plasmodium infections in a high transmission area. Participants were healthy, malaria-asymptomatic, afebrile, adults (age 18–59 years) and older children (age 8–17 years) in Katakwi District, Uganda, who were negative for Plasmodium infection on rapid diagnostic tests.

This study evaluated infection profiles and dynamics of asymptomatic, low-density Plasmodium infections using dried blood spots (DBSs) self-collected by participants daily for 29 days. About a third of all DBSs collected were positive for Plasmodium and 60% of all participants had a Plasmodium infection identified during the study. This results highlight the pitfalls of single timepoint measurements for Plasmodium infection status, especially in areas with high prevalence of low-density infections. The findings indicate that more frequent sampling might be needed to better understand the different types of trajectories in endemic areas and the frequency at which these infections occur, and to assess the effect of these dynamics on transmission and elimination efforts.

More at [thelancet.com](https://www.thelancet.com)



Treatment Failure in a UK Malaria Patient

A traveler, who returned to the UK from Uganda in 2022 with Plasmodium falciparum malaria, twice failed treatment with full courses of artemether-lumefantrine. Parasites from the patient exhibited significantly reduced susceptibility to and lumefantrine. Genotyping identified the presence of pfk13 mutations encoding L145V and A675V. Parasites with reduced susceptibility to both artemisinin and lumefantrine may be emerging in Uganda.

More at academic.oup.com



Similar Malaria treatment failure report from Israel, was published in the December 23 edition.

More at academic.oup.com



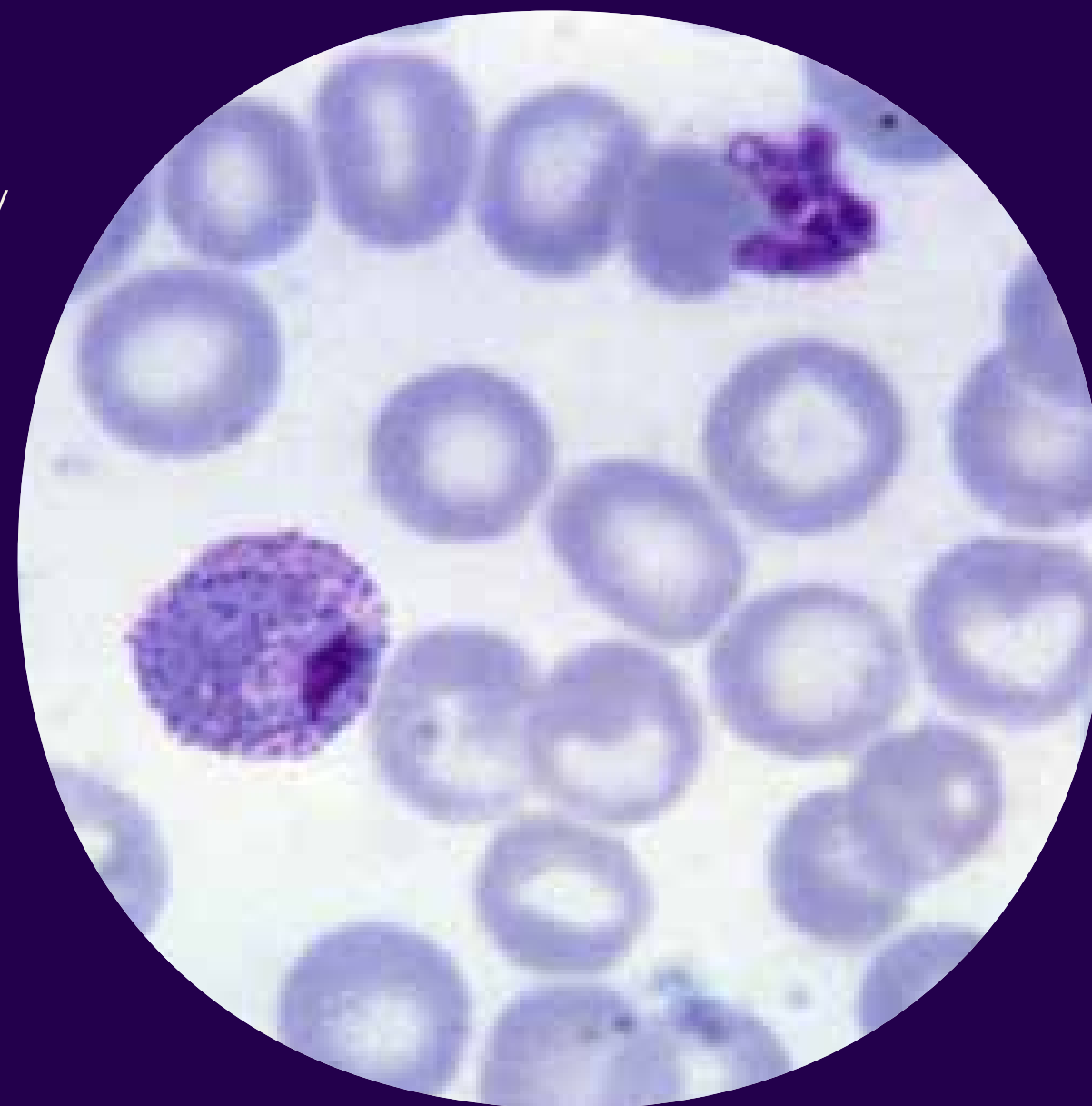
Effect of primaquine dose on the risk of recurrence in patients with uncomplicated Plasmodium vivax

A systematic review and individual patient data meta-analysis to investigate the efficacy and tolerability of different primaquine dosing regimens to prevent P vivax recurrence.

23 studies with patient-level data from 6879 patients from 16 countries were included in the efficacy analysis. The results show the benefit of high total dose (7 mg/kg) compared with low total dose (3.5 mg/kg) primaquine to reduce vivax recurrences across most vivax-endemic regions. The increase in the daily dose of primaquine (from 0.25 mg/kg per day to 0.5–1 mg/kg per day) resulted in a small increase in gastrointestinal adverse events.

The implications of all the available evidence are that High total dose primaquine (7 mg/kg) might halve the risk of P vivax recurrences in most vivax-endemic regions over 180 days of follow-up. Increased daily doses need to be balanced against increased risk of gastrointestinal side-effects and haemolysis in vulnerable patients.

More at academic.oup.com



WHO Certified Cape Verde as Malaria Free country

With this significant achievement, Cape Verde joins the ranks of 43 countries and 1 territory that WHO has awarded this certification. Cape Verde is the third country to be certified in the WHO African region, joining Mauritius and Algeria.

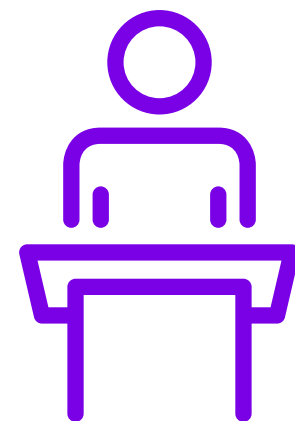
Malaria elimination certification is granted by the WHO when a country has: shown that malaria transmission by Anopheles mosquitoes has been interrupted nationwide for at least three consecutive years demonstrated the capacity to prevent the re-establishment of malaria transmission Malaria burden is the highest on the African continent, which accounted for approximately 95% of global malaria cases and 96% of related deaths in 2021.

Malaria prevention measures are not required for travellers to Cape Verde, although insect bites should be avoided as other vector-borne infections may be present.

More at afro.who.int



UPCOMING CONGRESSES

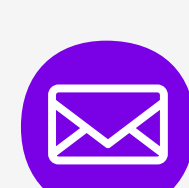


THE ANNUAL MEETING OF
THE ISRAEL SOCIETY FOR
PARASITOLOGY,
PROTOZOOLOGY AND
TROPICAL DISEASES

06 March 2024

ADELIS Conference center
Tel Aviv, Israel

Click for Registration



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