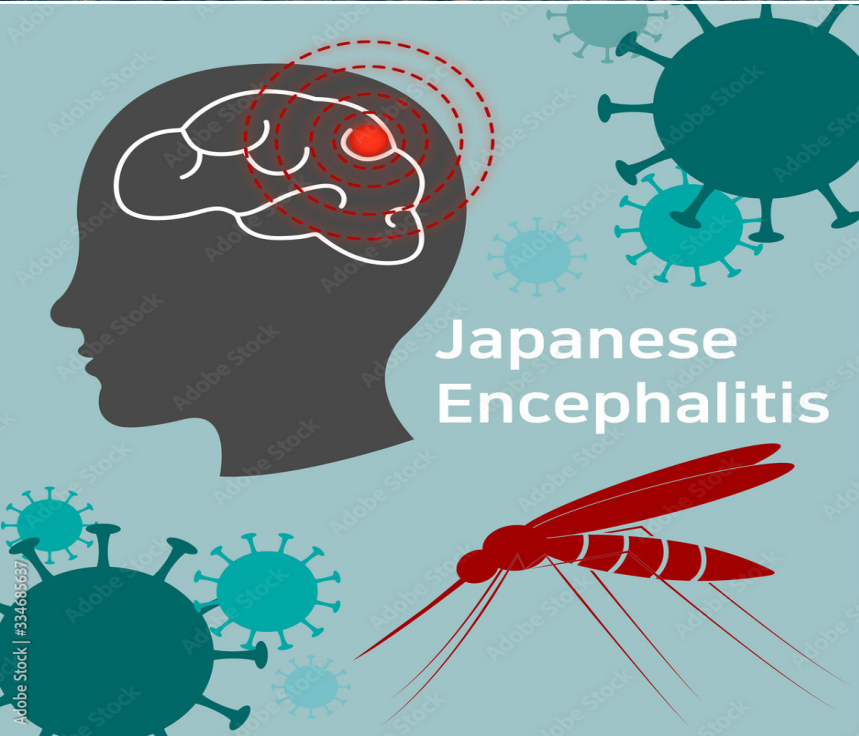




University of Colorado Infectious Diseases Travel Bulletin

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Rabies

Every year, dog-mediated rabies kills an estimated 70 000 individuals per the World Health Organization (WHO). Most cases are from Asia and Africa. In 2025, an increase in animal-bite cases and rabies related deaths have been reported worldwide, including 3 deaths in travelers and regional outbreaks in Timor Leste, India, and Thailand—prompting travel alerts in Bangkok and warnings about counterfeit rabies vaccines in India.

WHO recommends starting postexposure prophylaxis (PEP) within 24 hours of the animal associated injury. Current research shows that up to 60% of travelers experience PEP delays (de Feij M. et al. J Travel Med 2025). Improper wound management, failure to seek prompt treatment, unavailability of rabies treatment, not following the proper protocol, and improper vaccine/rabies immunoglobulin (RIG) administration may lead to rabies despite vaccination. Travelers should be advised to avoid bites and other animal exposures; to cleanse a wound using soap and water for at least 15 minutes to decrease rabies viral load; and to seek PEP (RIG and post-exposure vaccinations) within 24-72 hours of injury.

Dogs (both domestic and stray) pose the greatest risk for rabies exposure in developing countries; however, bat bites are also a cause of concern. Bat rabies is transmitted by bat bites or scratches (which may not be noticed) or, more rarely, by inhalation of aerosolized virus or contact with bat saliva in caves where numerous bats congregate. Rabies infection in rodents is very uncommon; no human rabies cases due to rodent bites have been reported. No cases of human rabies resulting from consumption of raw meat or raw milk from a rabid animal have been documented.

Rabies PrEP should be considered for travelers to high-risk countries (especially to those with limited access to

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RIG) as well as encouragement of timely (in-country) PEP for rabies and Macacine herpesvirus B when warranted. Rabies vaccines are well tolerated. Serious systemic, anaphylactic, or neuroparalytic reactions are rare. The deltoid area is the only acceptable site of vaccination for adults and older children. The vaccine should never be administered in the gluteal area.

No evidence exists of risk to the fetus from vaccinating pregnant women with rabies vaccine. Pregnancy and breast feeding are not considered contraindications to PrEP or PEP. Whether rabies vaccines are excreted in human breast milk is unknown.

Consider testing for antibody response after vaccination in individuals taking corticosteroids, chemotherapy agents, and immunosuppressive agents as these can interfere with the development of active immunity after vaccination. T

DENGUE

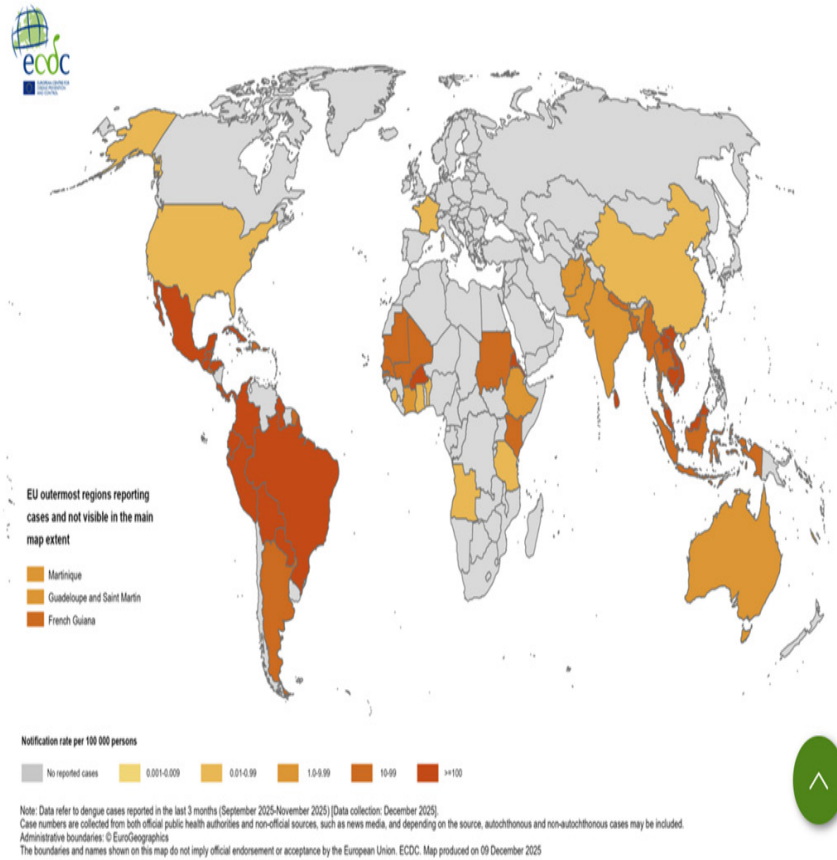
Dengue is a year-round risk in many parts of the world. 2025 saw high dengue activity, with over 5 million cases and over 3000 dengue-related deaths reported by late 2025 across the Americas, Asia, and Africa, exceeding previous years in many areas. The Region of the Americas was particularly hard hit, with over 90% of global cases, led by Brazil, Argentina, and Mexico, straining healthcare systems.

Travelers to Central/South America, South-East Asia, the Middle East, Africa, and Pacific Islands faced the highest risk, with the CDC issuing advisories for these regions.

In 2025, approximately 5000 travel-related dengue cases have been reported across various U.S. jurisdictions, with some local transmission occurring in Florida Texas, Arizona, California, and Hawaii. Dengue is common in the U.S. territories of American Samoa, Puerto Rico, the U.S. Virgin Islands, Micronesia, the Marshall Islands, and the Republic of Palau.

While the CDC currently authorizes the first-generation dengue vaccine for use in Puerto Rico, where dengue has become endemic, no Dengue vaccine is available in the mainland U.S. Prevention remains key--avoiding mosquito bites.

There are several Dengue vaccine candidates in late-stage development. ▮



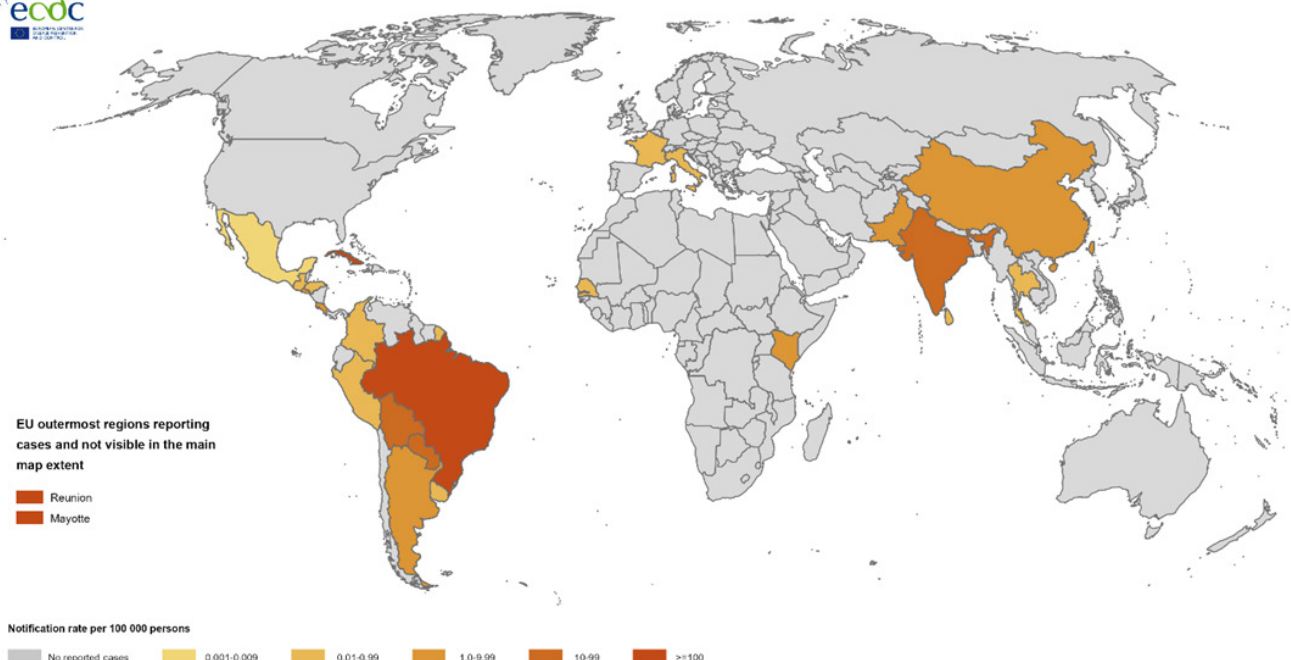
CHIKUNGUNYA

In 2025, there have been 485,908 CHIKVD cases and 229 associated deaths reported worldwide, an increase over cases in 2024.

Brazil had the highest absolute number of reported CHIKV cases globally, accounting for a large majority of infections in the Americas, while India also experienced a significant outbreak. Other countries with notable outbreaks included China (Guangdong province), Sri Lanka, Mauritius and the island of La Réunion (France). Mexico has reported CHIKVD cases for the first time in 2025. Currently, 14 countries have ongoing CHIKV outbreaks (time window of last 60 days)—these include Argentina, Barbados, Bolivia, Brazil, Colombia, Cuba, El Salvador, Guatemala, Honduras, Mexico, Uruguay, China, Pakistan, Singapore. Avoidance of mosquito bites is key but vaccination is also available.

ACIP recommends chikungunya vaccine for persons travelling to a country or territory where there is a chikungunya outbreak (a sudden increase in disease cases beyond what's normally expected in a specific area or population or a cluster of cases linked by time, place, or common exposure). In addition, chikungunya vaccine may be considered for persons travelling or taking up residence in a country or territory without an outbreak but with elevated risk for U.S. travelers if planning travel for 6 months or more.

Ixchiq (live-attenuated) chikungunya vaccine is currently not available in the U.S.; the FDA pulled it from U.S. markets in January 2026 due to serious safety concerns like chikungunya-like illnesses and severe adverse events. Vimkunya (CHIK VLP) chikungunya vaccine is available—see updates below. $\bar{\pi}$



Note: Data refer to Chikungunya virus disease cases reported in the last 12 months (December 2024–November 2025) [Data collection: December 2025]. Case numbers are collected from both official public health authorities and non-official sources, such as news media, and depending on the source, autochthonous and non-autochthonous cases may be included. Administrative boundaries: © EuroGeographics. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. ECDC. Map produced on 12 December 2025



JAPANESE ENCEPHALITIS

In 2025, Japanese Encephalitis (JE) outbreaks were reported in Asia and the Western Pacific including new endemic areas in Australia. High burden/endemic countries include India, Indonesia, Philippines, Vietnam, Thailand, Myanmar, Cambodia, Malaysia, Nepal, and Sri Lanka. High vaccination rates in Japan, South Korea, and Taiwan have drastically reduced cases, though transmission still occurs in some areas.

In 2025, Nepal experienced a surge of cases (175 cases and 35 deaths) by December with a demographic shift noted—more than 70% of deaths occurring in adults over 40 years instead of in young children. As of December 24, 2025, nine JE cases and five deaths were reported in Australia during the 2024–25 summer season. Several traveler cases have been reported in recent years from Bali, Indonesia, and resort and coastal areas of southern Thailand.

A recent study published in the journal *Nature* highlights significant public health concerns stemming from changes in the dominant genotype, the emergence of epidemics in new regions, and the re-emergence of previously dormant genotypes. (Nanda Kishore KJ et al. Tracing the evolutionary trajectory of Japanese encephalitis virus across hosts and countries www.nature.com/scientificreports)

Though most JE cases are asymptomatic, the mortality rate can reach 20-30%, and 30-50% of surviving cases have neurological or psychiatric sequelae. CDC recommends that international travelers avoid mosquito bites and consider getting vaccinated if they are visiting areas experiencing outbreaks of JE. ☐

YELLOW FEVER



YELLOW FEVER

As of late 2025, the WHO and partners reported a significant surge in yellow fever (YF) cases in the Americas, particularly in Brazil, Colombia, Peru, Bolivia, and Ecuador, with 235 confirmed cases and 96 deaths. The outbreak was attributed to sylvatic transmission, reduced vaccination coverage, and climate factors. Brazil and Colombia reported infections in areas where city expansion meets rural and forested zones, such as São Paulo and Tolima—regions traditionally outside the YF risk zone. The occurrence of YF cases outside of the Amazon basin is concerning due to risk of introduction of YF into urban settings due to increased sylvatic transmission with potential for international spread if urban contingency measures are inadequate.

Angola, Burkina Faso, Niger, Liberia, and Nigeria also reported confirmed cases of Yellow Fever in 2025.

Colombia declared a nationwide health emergency in 2025. The CDC issued a Level 2 Travel Health Notice for several South American regions, recommending vaccination at least 10 days before travel. Travelers to newly affected areas are now recommended to get vaccinated (see map).

All international travelers aged 9 months and above heading to areas at risk of YF transmission are advised to get vaccinated unless the vaccine is medically contraindicated. A booster dose may be given to travelers who received their last dose of YF vaccine at least 10 years previously and who will be in a higher risk setting. Pregnant women should avoid or postpone travel to an area where there is risk of YF. Though, if travel cannot be avoided, vaccine may be given if benefits outweigh risks. WHO recommends delaying pregnancy for 4 weeks after receiving the YF vaccine. †



MONKEY POX

As of January 2026, the global picture of Mpx activity involves two clades with distinct transmission patterns. The Clade I outbreak is predominant in Central and East Africa, while Clade II circulates at lower levels globally, with localized community transmission of Clade Ib identified in a growing number of countries. The Democratic Republic of the Congo (DRC) is the epicenter of the more severe Clade I outbreak, with a high number of cases and associated deaths. The Clade Ib variant, which emerged in 2023, is a primary concern due to its potential for faster spread and more severe outcomes. Countries with significant or ongoing Clade Ib transmission include Burundi, DRC, and Uganda. In addition to sustained transmission in Africa, travel-related cases have led to localized community transmission of Clade Ib in other regions- including Italy, Malaysia, Netherlands, Portugal, Spain, United States of America, Israel and the United Kingdom.

The U.S. FDA-approved MVA-BN[®] vaccine is reported to provide 66–89% effectiveness against clade II strains when two doses are administered. A recent study in the *Journal of Infectious Disease* found that MPXV-specific neutralizing antibodies (NAb) waned at >2 years from previous infection

MONKEY POX-Cont

or vaccination, often becoming undetectable. Higher NAb titers at six months (univariate) and prior smallpox vaccination (multivariate) were associated with NAb detection at >2 years, whilst previous Mpox was marginally associated (Moschetta N. et al. J Infect Dis. 2026 Jan 6.)

POLIO

In 2025, polio cases continued globally, with both endemic Wild Poliovirus Type 1 (WPV1) and circulating vaccine-derived poliovirus (cVDPV), with hundreds of WPV1 cases and numerous vaccine-derived cases reported by late 2025. Afghanistan and Pakistan remain the only two countries where wild poliovirus is endemic, with intense transmission and geographic spread in cross-border regions. Ongoing risk of cVDPV international spread indicates continued low routine immunization, ongoing conflict, and lack of access in several countries.

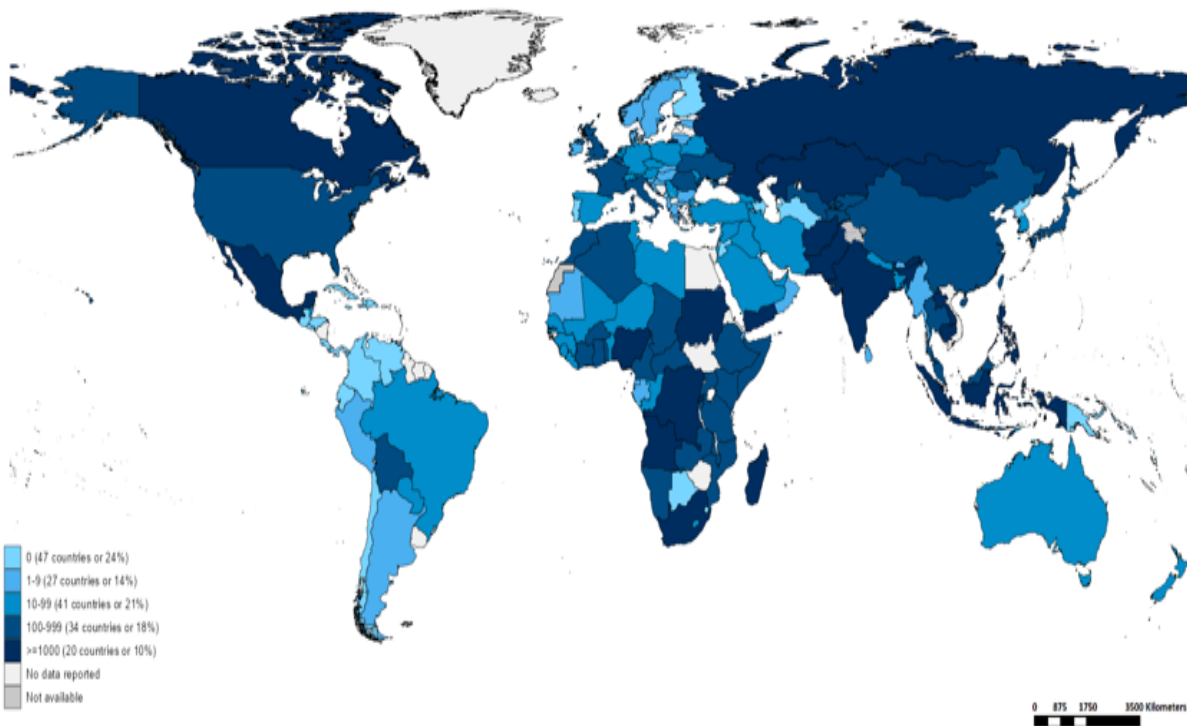
In 2025, the CDC identified 39 countries at risk for the spread of poliovirus and recommends up-to-date polio vaccination before any international travel. Adults who completed their childhood series usually need a single lifetime IPV booster.

Countries with circulating poliovirus as of November 2025 include Afghanistan, Algeria, Angola, Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Ethiopia, Finland, French Guiana, Germany, Ghana, Guinea, Indonesia, Israel, the West Bank and Gaza, Kenya, Liberia, Niger, Nigeria, Pakistan, Papua New Guinea, Poland, Republic of South Sudan, Senegal, Sierra Leone, Somalia, Spain, Sudan, Tanzania, including Zanzibar, Uganda, United Kingdom, Yemen, and Zimbabwe.



MEASLES

Number of Reported Measles Cases (Last 6 months)



Country	Cases*
Indonesia	14,406
Yemen	9,277
Mongolia	8,483
Pakistan	8,310
India**	8,184
Angola	5,823
Nigeria	4,676
Mexico	3,164
Russian Federation	2,939
Lao People's Democratic Republic	2,859



Map production: World Health Organization, 2026. All rights reserved
Data source: IVB Database

Disclaimer: The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The United States experienced a major surge in measles in 2025 with 2,255 confirmed cases across 45 states, the highest in over 30 years. Approximately 93% of cases were among unvaccinated or unknown-status individuals. A total of 25 measles cases were reported among international travelers to the United States--many directly imported by travelers returning from countries like Canada, Mexico, and nations in Asia. Major travel hubs, including LAX and Denver International Airport, were identified as hot spots for measles exposures in 2025.

The CDC recommends that all international travelers should be fully vaccinated against measles with a total of two doses at least 28 days apart for anyone 12 months old or older without adequate evidence of immunity. Acceptable evidence of immunity against measles includes at least one of the following:

- Written documentation of adequate vaccination
- Laboratory evidence of immunity
- Laboratory confirmation of measles
- Birth before 1957 $\bar{\pi}$



VACCINE UPDATE

VIMKUNYA®, a non-live Chikungunya virus-like particle (VLP) vaccine produced by Bavarian Nordic A/S, was approved for individuals 12 years of age and older in the U.S. and Europe in February 2025.

Hills SL et al. (J Trav Med 2025) reviewed 6 months post-vaccination data for CHIK-VLP (Vimkunya). At 6 months post-vaccination, seroresponse rates were 85% in adolescents and younger adults and 76% in older adults. The most common adverse effects after vaccination included minor injection site pain, fatigue, headache, and myalgia. No concern for Chikungunya-like serious adverse reactions was identified. Bavarian Nordic A/S is awaiting longer-term data and post-marketing surveillance to assess durability of immunoresponse and detection of rare adverse events. At present, there are no restrictions for use in older people or immunosuppressed individuals, although, immunodeficiency could result in a diminished immune response to vaccination. Events after vaccination with CHIK VLP occurring through Sept 2025 were reported to VAERS—these included one episode each of a localized reaction, a vasovagal episode, an allergic reaction and generalized lymphadenopathy.

Pregnancy was an exclusion criterion in the clinical trials, so data are insufficient to determine whether any safety risks from CHIK-VLP vaccinations during pregnancy exist. In a developmental and reproductive toxicity (DART) study in rabbits, the postnatal survival rate within 28 days was significantly lower for kits born to vaccinated mothers (42%) compared with kits in the control group (69%). In a DART study in rats, reduced pup survival rates were not observed. No human data are available on administration of CHIK-VLP to breastfeeding women. Pregnant and breastfeeding women should avoid travel to an area with CHIK virus transmission particularly during an outbreak. U.S. guidance indicates pregnancy is a precaution for vaccination with CHIK-VLP and vaccination should generally be deferred until after delivery. However, when the risk of infection is high and exposure cannot be avoided, vaccination can be considered after the first trimester or during breastfeeding after a discussion of risks and benefits. CHIK-VLP should ideally be administered a minimum of 2 weeks prior to the expected delivery date, and preferably earlier, to allow protection around the time of delivery and development of antibodies that could be transferred to the infant to provide protection after birth. (Hills, SL et al. Chikungunya vaccination for travellers: practical guidance for clinical decision-making. Journal of Travel Medicine, 2025, Vol.32, No.8). †