

Category 3: Written or electronic notification within 7 days of diagnosing by private and public health laboratories. The case must be edited following laboratory confirmation

Non-Endemic arbovirus : ZIKA VIRUS

Disease epidemiology	Who must notify	Confirmed case definition
<p>Zika virus (ZIKV) was recognized as a human pathogen for the first time in 1964 following an occupationally acquired infection. The virus was isolated for the first time from a sentinel monkey in Uganda in 1947 and from <i>Aedes africanus</i> mosquitoes the following year. It is spread by daytime-active <i>Aedes</i> mosquitoes, such as <i>A. aegypti</i> and <i>A. albopictus</i>. For decades the virus remained relatively obscure, unreported and confined to the equatorial belt of Africa and Asia, until 2007 when it caused an outbreak on Yap Island in the Pacific Ocean. This was followed by a rapid expansion of the virus' geographical range throughout other islands in the Pacific Ocean until it reached South and Central America in 2014. In 2015-2016, an outbreak occurred in Brazil, rest of Latin America and Caribbean and North America.</p> <p>ZIKV infection during pregnancy can result in microcephaly and other congenital abnormalities, as well as preterm birth and miscarriage.</p> <p>ZIKV has been linked to Guillain-Barré syndrome, neuropathy,</p>	<p>✓ Laboratory detecting the virus</p> <p>NB: Only confirmed cases should be notified.</p>	<p>A confirmed case is a person with laboratory evidence as follows:</p> <ul style="list-style-type: none"> • Detection of RNA or Zika virus antigen in any specimen (serum, urine, saliva, tissue or whole blood); OR • Positive Zika IgM antibodies AND Plaque reduction neutralization (PRNT90) for Zika virus titers ≥ 20 and at least four-fold greater than the titers for other flaviviruses; AND exclusion of other flavivirus; OR • A four-fold rise in antibody titre in paired sera collected 2-3 weeks apart AND the absence of antibodies to other flaviviruses endemic to the area of exposure; OR

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and myelitis in both adults and children. From February–November 2016, WHO classified ZIKV-related microcephaly a Public Health Emergency of International Concern (PHEIC). Since 2017, ZIKV disease have seemingly reduced internationally, however ZIKV transmission remains low in numerous nations in the Americas and other endemic locations. To date, 89 nations and territories have reported cases of mosquito-borne ZIKV infection; nevertheless, worldwide surveillance remains insufficient. In 2019, local mosquito-transmitted ZIKVs were reported, and in 2021 in India. Although ZIKV is primarily transmitted by *Aedes* mosquitoes, human-to-human transmission through sexual transmission, or in-utero transmission are reported. ZIKV may be asymptomatic in many. Symptoms may appear 3–14 days after exposure and may include rash, fever, conjunctivitis, muscle and joint pain, malaise, and headache for 2–7 days. Most cases resolve without intervention and fatalities are rare (apart from congenital ZIKV disease).

Case definition for suspected cases of ZIKV disease:

Patient with rash* with **two or more** of the following signs or symptoms:

- fever, usually $>38.5^{\circ}\text{C}$
- conjunctivitis (non-purulent/hyperendemic)
- arthralgia
- myalgia
- peri-articular oedema

*usually pruritic and maculopapular

AND who

- in the 2 **weeks prior to onset, travelled to, or resided in, a geographic area where there is (a) known local**

- In autopsy specimens, detection of the viral genome (in fresh or paraffin tissue) by molecular techniques, or detection by immuno-histochemistry.

Note: Testing of paired (i.e. collected 2–3 weeks apart) specimens are recommended. Interpretation of serology may be complicated given substantial cross-reactivity with other flaviviruses (such as dengue and yellow fever). It is recommended to consider other arboviral infections for differential diagnosis, in particular dengue and chikungunya given the overlapping geographical distribution and similar clinical presentation.

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transmission of the ZIKV or (b) and area with known vector presence; OR

- **had unprotected sex, in** the 2 weeks prior to onset, with a person who travelled, in the previous 8 weeks**, to a geographic area with (a) known local transmission of the ZIKV or (b) and area with known vector presence.

**In accordance with WHO guidance, men and women returning from areas with ZIKV active transmission areas should adopt safer sex practices or consider abstinence for at least 3 months upon return and apply insect repellent for at least 3 weeks upon return to reduce the risk of onward transmission. Men and women should not get pregnant for at least 3 months upon return from areas with ZIKV active transmission areas. Pregnant women and partners living in areas of active transmission must take preventive measures to avoid mosquito bites.