

Center for Policy, Planning and Evaluation Administration
Division of Epidemiology-Disease Surveillance and Investigation

January 21, 2016

Health Notice for Health Care Providers

Update on Travel-Associated Illnesses: Zika and Ebola Virus Disease

Summary

Every day nearly one million travelers arrive to the United States. The District of Columbia Department of Health (DOH) strives to track the movement and spread of communicable diseases in the District, including those related to travel-associated exposures.

We are asking health care providers to assist us in our surveillance by doing the following:

- **Consistently collect travel history information during the clinical evaluation of patients.**
- **Promptly report suspected cases of travel-associated illness.**

Case reports are an essential means by which we collect and accurately report data on the burden of illnesses among District residents. We would like to share important information on Zika and Ebola virus disease, including current data on the Zika outbreak and details about the discontinuation of active monitoring of travelers for Ebola after travel from Guinea, Liberia, or Sierra Leone.

Zika Virus Disease

Background

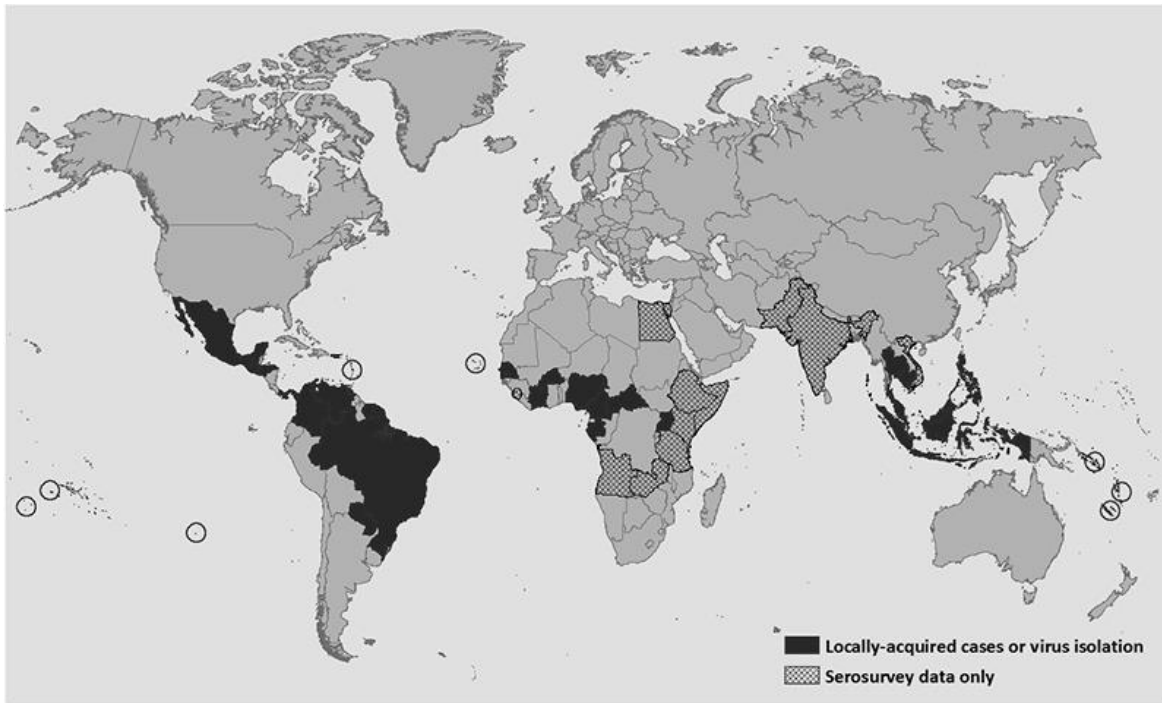
Zika is a flavivirus transmitted by mosquitoes. It is closely related to yellow fever, dengue, and West Nile Viruses and is endemic in some areas of Africa and Asia. It is transmitted by *Aedes* mosquito spp., which is found in tropical and sub-tropical areas throughout the world. The first transmission reported outside of Asia and Africa occurred in 2007.¹ Zika virus infection generally presents with a mild illness, characterized by low grade fever (< 38.5°C) and a maculopapular rash, but can include symptoms such as myalgias/arthralgias, headache, conjunctivitis, pain behind the eyes, and vomiting. Severe disease is uncommon and no deaths have been reported.²

Zika has recently come to attention because of transmission in South and Central America, in countries which have had no previously reported cases (**Figure 1**). An outbreak of Zika characterized by maculopapular rash, fever, myalgias/arthralgias, and conjunctivitis occurred in 2015 in Brazil.³ Symptoms can be mild and last days to weeks. In addition, it has been reported that the number of babies born with birth defects such as microcephaly in Brazil increased dramatically in 2015; a possible link between microcephaly and the increased incidence of Zika virus infection is currently being investigated as it is unknown how many are associated with infection and what are the factors that may cause increased risk to the fetus.

Zika is diagnosed by RT-PCR if the serum specimen is collected in the first week of illness, and Immunoglobulin M and neutralizing antibody testing should be performed on specimens collected ≥ 4 days

after onset of illness. Zika virus IgM antibody assays can be positive due to antibodies against related flaviviruses (e.g., dengue and yellow fever viruses). Virus-specific neutralization testing may not discriminate between cross-reacting antibodies in people who have been previously infected with or vaccinated against a related flavivirus, which is why it is important to collect this information as part of the medical history. There is no treatment for Zika virus other than the provision of supportive care. Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) should be avoided until dengue can be ruled out to reduce the risk of hemorrhage.

Figure 1. Countries that have past or current evidence of Zika virus transmission (as of December 2015)²



Recommended Actions

Evaluating patients for Zika infection⁴

DOH recommends laboratory testing for patients with clinically compatible symptoms AND who traveled to areas with ongoing transmission in the two weeks prior to onset of illness. If you encounter a patient who meets these criteria, please take the following steps:

1. Notify DOH by phone about any suspected cases of Zika virus infection: (202) 442-8141 (8:15am-4:45pm)/1-844-493-2652 (after-hours calls)
2. Complete the DOH Communicable Disease Case Report Form (<http://doh.dc.gov/publication/communicable-disease-case-report-form>) and fax it (202) 442-8060.
3. Obtain a laboratory serum sample (any tube) for testing.
 - a. Sample submission is coordinated through the DC Public Health Laboratory for testing by the CDC. Preliminary results should be reported to DOH within one week.
4. Complete the CDC 50.34 sample submission form and include it with your sample. <http://www.cdc.gov/laboratory/specimen-submission/form.html>
 - a. Fill out the form completely and ensure the following information is accurate:
 - i. Date of onset of clinical signs/symptoms

- ii. Travel history and dates
- iii. Sample collection date

Special considerations for pregnant women⁵

Out of an abundance of caution, pregnant women should consider postponing travel to areas with ongoing Zika virus transmission. If a pregnant woman does travel to these areas, steps should be taken to strictly avoid mosquito bites such as obtaining lodging with air conditioning and window screens, wearing long sleeves and pants, and using insect repellent while outdoors (all Environmental Protection Agency-registered repellents can be used safely by pregnant women as according to the label).

If you have a pregnant patient with a positive travel history but without clinically compatible symptoms, follow the algorithm as outlined in the CDC interim guidelines (<http://www.cdc.gov/mmwr/volumes/65/wr/mm6502e1er.htm>). At this time, serum blood testing is not recommended for asymptomatic patients and CDC will not perform testing in these cases; however a fetal ultrasound to look for microcephaly or intracranial calcifications should be performed. A fetal ultrasound is also indicated for women who had a negative test result.

For a pregnant woman diagnosed with Zika infection during the pregnancy, the current recommendations as outlined in the CDC interim guidelines are to consider amniocentesis for RT-PCR testing (as described in “Evaluating patients for Zika infection”), and serial ultrasounds every 3-4 weeks to detect microcephaly or intracranial calcifications. All clinical decisions should be made only after discussions with an obstetrician.

Providers should regularly check for updated guidelines on the CDC website as the information and recommendations on Zika virus infection are rapidly evolving.

Ebola Virus Disease

Background

Since March 2014, West Africa has experienced the largest outbreak of Ebola in history, with multiple countries affected. In October 2014, CDC implemented enhanced entry screening at five U.S. airports that receive over 94% of travelers from Guinea, Liberia, and Sierra Leone, including at Dulles International Airport. DC DOH began actively monitoring travelers from these countries residing or visiting the District in October 2014. CDC has periodically updated its recommendations and guidelines over the past 14 months as the control of the outbreak in West Africa has improved and come to a halt in the affected countries. Per updated CDC guidelines, DC DOH ended monitoring of travelers from Liberia on June 17, 2015, and travelers from Sierra Leone on November 10, 2015.

Update

On December 29, 2015, the World Health Organization (WHO) declared Guinea free of Ebola virus transmission after 42 had passed since the last patient with Ebola tested negative for the disease twice. As of December 29, 2015, enhanced entry screening and monitoring have changed for travelers entering the United States from Guinea. These travelers will continue to enter the United States through one of the designated U.S. airports conducting enhanced entry screening. However, CDC no longer recommends active monitoring for travelers arriving in the United States from Guinea. As a result of these changes, DC DOH is no longer actively monitoring travelers from Guinea, as of December 29, 2015.

For more information, or to report suspected Zika cases or other travel-associated illnesses, please contact the Division of Epidemiology–Disease Surveillance and Investigation:

Phone: (202) 442-8141 (8:15am-4:45pm) | 1-844-493-2652 (after-hours calls)

Fax: (202) 442-8060

Email: doh.epi@dc.gov

Additional Resources

- Information from the CDC on Zika virus: <http://www.cdc.gov/zika>
- Information on the possible association with microcephaly: <http://www.cdc.gov/zika/pdfs/possible-association-between-zika-virus-and-microcephaly.pdf>
- Additional instructions for submitting specimens for Zika virus testing: <http://www.cdc.gov/nceid/dvbd/specimensub/arboviral-shipping.html>
- Information on protection against mosquitoes: <http://wwwnc.cdc.gov/travel/yellowbook/2016/the-pre-travel-consultation/protection-against-mosquitoes-ticks-other-arthropods>
- Information from the CDC on the 2014 EVD outbreak in West Africa: <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/>.

References

1. World Health Organization Western Pacific Region. Zika virus. (May 2015). Retrieved January 6, 2016, from: http://www.wpro.who.int/mediacentre/factsheets/fs_05182015_zika/en/
2. Centers for Disease Control and Prevention. Zika virus. (December 2015). Retrieved January 6, 2016, from <http://www.cdc.gov/zika/index.html>
3. Campos GS, Bandeira AC, Sardi SI. Zika virus outbreak, Bahia, Brazil [letter]. *Emerg Infect Dis*. 2015 Oct [January 7, 2016]. <http://dx.doi.org/10.3201/eid2110.150847>
4. Centers for Disease Control and Prevention. Recognizing, Managing, and Reporting Zika Virus Infections in Travelers Returning from Central America, South America, the Caribbean, and Mexico. Accessed January 19, 2016 from <http://emergency.cdc.gov/han/han00385.asp>
5. Petersen EE, Staples JE, Meaney-Delman, D, et al. Interim Guidelines for Pregnant Women During a Zika Virus Outbreak — United States, 2016. *MMWR Morb Mortal Wkly Rep* 2016;65(Early Release):1–4. DOI: <http://dx.doi.org/10.15585/mmwr.mm6502e1er>