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CHILDREN'S ENVIRONMENTAL HEALTH CENTER OF THE HUDSON VALLEY PROTECTING CHILDREN AGAINST ENVIRONMENTAL THREATS

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August 1, 2016 - CHILDREN'S HEALTH ADVISORY Zika Virus: The Latest

August 1, 2016: In early 2016, the WHO warned about an outbreak of Zika virus in several countries and issued health travel advisories, particularly for pregnant woman traveling to high risk areas. Since then, there has been a dramatic rise in the number of cases, and still no cure for this devastating disease. Many individuals were being exposed to the virus through travel. Currently, Zika virus can be contracted by travelling to a place with those mosquitoes and getting bitten, having sexual intercourse with an infected male, or receiving a blood transfusion from someone infected with the virus. The fetus of a pregnant woman infected with Zika virus is at risk for severe birth defects, including microcephaly.

According to the CDC, as of July 27, there were 1,658 cases of Zika reported in the US. None of those were the result of local spread by mosquitoes. Most were contracted from travel outside of the US, 15 were believed to be caused by sexual transmission, and 1 one was the result of laboratory exposure. However, in July 29, 2016, health officials have ruled out travel and sexual transmission as possible routes of transmission for 4 Florida people infected with the virus, these people likely have the Zika virus as a result of a mosquito bite. This means Florida is the first place in the United States to have local transmission of the Zika virus.

What is Zika Virus? Zika virus is a member of the virus family Flaviviridae and the genus Flavivirus. It is spread by daytime-active Aedes mosquitoes, such as *A. aegypti* and *A. albopictus*. It's name comes from the Zika Forest of Uganda, where the virus was first isolated in 1947. Zika virus usually causes mild illness. Symptoms most commonly include a slight fever

or rash, appearing a few days after a person is bitten by an infected mosquito. Although many will not develop any symptoms at all, others may also suffer from conjunctivitis, muscle and joint pain, and fatigue. The symptoms usually last from 2 to 7 days. A rare nervous system disorder, Guillain-Barre syndrome, which can cause temporary paralysis has been linked to the infection. The biggest concern is the impact on the brains of developing babies in the womb. Upon birth, many complications can occur to a child infected with the virus. Microcephaly is a condition in which a baby is born with a smaller head, and an underdeveloped brain. CDC scientists announced that there is now enough evidence to conclude that Zika virus infection during pregnancy is a cause of microcephaly and other severe fetal brain defects and has been linked to problems in infants, including eye defects, hearing loss, and impaired growth. The severity varies, but it can be deadly if the brain is so underdeveloped that it cannot regulate the functions vital to life. Children that do survive face intellectual disability and major development delays.

Regulation and Prevention: The CDC (Center for Disease Control) and WHO (World Health Organization) are focusing on surveillance systems in countries that are already known to have Zika Virus cases, as well as countries that are suspected to have cases in the near future. The WHO is also working on developing vaccines as well as tools to better control the mosquito population, therefore preventing bites from occurring in the first place.

The CDC and WHO states that everyone, not only women, should be careful when traveling to countries known to have mosquitoes infected with Zika. Helpful tools and tips for preventing potential Zika virus transmission include: wearing long sleeves and long pants, using Environmental Protection Agency-registered insect repellent, eliminating and avoiding containers with standing water, using bed nets and sleeping indoors in a cool room. If traveling to a country with known Zika Virus is necessary, one should take precaution. Otherwise, the CDC recommends avoiding travel to those countries.

The Latest: Summary of the latest recommendations from the CDC in the light of the new cases from Florida:

- On August 1, 2016, the Centers for Disease Control and Prevention (CDC) issued a Health Advisory with travel and testing guidance for pregnant women and women of reproductive age related to the investigation for local mosquito-borne Zika virus transmission in Miami-Dade and Broward Counties in Florida.

- This CDC Health Advisory recommends that pregnant women should avoid all non-essential travel to the area with active Zika virus transmission identified by the Florida Department of Health (<http://www.cdc.gov/zika/intheus/florida-update.html>).
- Zika virus testing should be offered to pregnant women who have lived in or travelled to this area after June 15, 2016.
- Additional recommendations for pregnant women and their partners can be found in the CDC advisory, including recommendations for prevention of mosquito bites and prevention of Zika virus transmission through sexual contact.

For More Information

1. <http://www.cdc.gov/zika/>
2. <http://www.who.int/topics/zika/en/>