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MEMORANDUM

To: Illinois OB/GYNs, Family Practitioners, and Nurse Midwives

From: Communicable Disease Control Section

Date: January 15, 2016

Subject: Zika Virus Disease: Surveillance and Laboratory Testing

The purpose of this memorandum is to alert health care providers who may have pregnant women under their care to consider Zika virus disease in the differential diagnosis when considering possible mosquito-borne diseases.

I. Disease Surveillance

Zika virus disease is transmitted by the *Aedes* species mosquito, which also transmits dengue fever, yellow fever, and chikungunya. Outbreaks of Zika virus disease have been reported in tropical areas, including Africa, Southeast Asia, and the Pacific Islands. It has now spread to Central and South America and the Caribbean, including Puerto Rico. Though Zika virus disease has not been acquired in the continental United States, cases may be reported in travelers from endemic areas.

Clinical findings include fever with maculopapular rash, joint pain, conjunctivitis, muscle aches, headache, retro-orbital pain, and vomiting. Approximately 1 in 5 persons who are infected will exhibit symptoms, and most of these persons will only develop mild symptoms. Severe illness is rare and deaths due to Zika virus disease have not been reported. Non-specific clinical symptoms can make it difficult to diagnose. Hence, other possible etiologies (*e.g.*, chikungunya virus, dengue fever, malaria, rickettsia, Ross River) should also be considered. Supportive therapy is the standard of care. A possible link between Zika virus disease in pregnant women and subsequent birth defects is being investigated.

Health care providers should consider the diagnosis of Zika virus disease in clinically compatible persons—particularly pregnant women—who have travelled to an endemic area in the 3 to 12 days prior to illness onset. Laboratory diagnosis is generally accomplished by testing serum or plasma to detect virus, viral nucleic acid, or virus-specific immunoglobulin M and neutralizing antibodies. **Laboratory tests have not been evaluated for use in asymptomatic persons with a travel history, so these individuals should not be tested for Zika virus disease as the results would be difficult to interpret.**

II. Laboratory Testing

Serum specimens for Zika virus disease testing will be sent by the Illinois Department of Public Health (IDPH) Chicago laboratory to the Centers for Disease Control and Prevention (CDC). Health care providers should first contact their local health department for a consultation on suspect cases. Then local health departments should call the IDPH Communicable Disease Control Section (CDCS) if the case meets criteria for testing (clinically compatible and travel history). To obtain authorization for Zika virus disease testing, the following criteria must be provided to the IDPH CDCS Arboviral Disease Coordinator:

- patient age and gender
- travel history including travel destination, dates of departure and return
- clinical symptoms and onset
- was the patient pregnant at the time of exposure
    - approximate gestation/trimester when she traveled and became ill
    - current status of pregnancy and any issues identified with the fetus or infant
- specimen collection date,
- specimen source,
- specimen ID number,
- additional tests and results for other etiologies
- vaccination history for Japanese Encephalitis and Yellow Fever

Although Zika virus disease is not a reportable disease, the IDPH CDCS is asking medical providers and local health departments to voluntarily report suspect and confirmed cases. Case report information should be entered in the Illinois National Electronic Disease Surveillance System (I-NEDSS) Zika virus disease module.

Resources for public health professionals are available on the IDPH web portal in the "Communicable Disease Topics A to Z" pages under "Zika virus disease".

The IDPH CDCS Arboviral Disease Coordinator can be reached at 217-782-2016 or via email at Debbie.Freeman@illinois.gov.