



Department for Public Health Statewide Healthcare Conference Call Summary April 8, 2016

PURPOSE

The purpose of this communication is to summarize the topics from Friday's call which focused on Zika Virus situation update.

Topics of Call

Zika Virus Summit Update:

- The CDC held a Zika Virus Plan Summit in Atlanta on April 1, 2016.
 - Those attending the summit represented individuals actively involved in Zika planning.
 - Three major elements to the discussion presented by Dr. Frieden included the role of vector control, the science of Zika, including research in vaccine development and diagnostic testing, and public awareness campaigns.
 - Dr. Frieden stated the important role of a true community based response and reinforced that the primary objective is protecting women who are pregnant and who will get pregnant.
 - The need to address resources for low income women and guidance for preventing unintended pregnancies was stated as well.
 - Sustainable mosquito control is key.
 - Readiness action planning tracks included:
 - Vector control
 - Diagnostics
 - Prevention and care for pregnant and reproductive aged women
 - Health communications
 - Surveillance to detect local transmission
 - Surveillance and services for children with birth defects (registry)
 - Blood and tissue safety

Zika Virus Update and "Who to Test":

Unlike Dengue and Chikungunya, symptoms of Zika are usually mild and pass within a week. An enhanced targeted focus has been placed on Zika due to adverse effects on pregnancy or birth outcomes that have not been typically associated with Chikungunya or Dengue. Symptoms considered clinically compatible with Zika virus are fever, rash, joint pain, and/or



conjunctivitis. Symptomatic patients that are tested for Zika are typically tested for Dengue and Chikungunya as well. Chikungunya, Dengue and other arboviral illness testing can be obtained through reference labs. Zika Virus testing is performed at the CDC.

There are 346 cases of Zika across the continental United States. To the best of our knowledge, Zika has been reported in all but 9 states in the continental United States. All cases have been travel-associated and there have been no cases of locally acquired cases reported in the continental United States, which differs from the US territories. There have been 351 locally acquired cases reported in the US territories of American Samoa, Puerto Rico, and the US Virgin Islands. There are 42 countries or territories listed as areas with active Zika transmission. CDC keeps list of Zika-affected areas on their website which can be found at:

- <http://www.cdc.gov/zika/geo/active-countries.html>

With recent international outbreaks, the number of Zika cases among travelers visiting or returning to the U.S. will likely increase. – The imported cases could result in local spread of the virus in some areas of the U.S.

Kentucky has had three positive cases of Zika. All patients had at least three of the four symptoms clinically compatible with Zika. We have collected specimens from 67 patients for Zika, thus far.

- Any case of Zika should be reported on the EPID200 form. Be sure to mark pregnancy status appropriately, along with weeks of gestation.

Currently, the CDC is performing all Zika testing for residents of Kentucky. Due to increasing evidence supporting a link between Zika virus infection during pregnancy and adverse pregnancy and/ or adverse birth outcomes, an emphasis has been placed on testing pregnant women with history of recent travel to Zika-affected area, regardless if symptoms are present or not. However, CDC recently expanded testing for Zika to include any traveler meeting the following criteria:

- Any traveler with recent travel to a Zika-affected area that developed two of four signs or symptoms clinically compatible with Zika (fever, rash, joint pain, and/or conjunctivitis) within two weeks of travel.
- Any pregnant traveler with recent travel to a Zika-affected area during anytime of her pregnancy or within 8 weeks of conception. (Pregnant women do not need to exhibit symptoms for testing.)
- An Infant born to a mother with positive or inconclusive Zika test result.



It is taking approximately 3-4 weeks to get results from CDC. We hope to decrease the turn-around-time to a couple of days when testing can be performed at the state lab, Kentucky Division of Laboratory Services.

If you have a patient that you suspect may be infected with Zika please call your local or state health department. You will be provided instructions and forms to submit lab specimens. Because CDC is prioritizing testing for pregnant women, all specimens must be approved by KDPH before testing. If you call the local or state health department first, this will speed your process and decrease time between specimen collection and results.

All providers are encouraged to continue obtaining a travel history as part of assessment and evaluation to quickly identify and treat any infectious disease. Travel-related health problems have been reported in as many as 22-64% travelers to developing countries. Most post-travel infections become apparent soon after travel, resulting in symptoms within first 2 weeks after travel and travelers seeking medical attention within 1 month of return from their destination. Occasionally, an infection such as tuberculosis or leishmaniasis can manifest months-years later.

Zika prevention should be provided to every traveler pre/post travel and includes the following:

- Asymptomatic male travelers should use condoms (correctly and consistently) for 8 weeks after departure from a Zika-affected area.
- Symptomatic male travelers should use condoms (correctly and consistently) for 6 months (24 weeks) after departure from a Zika-affected area.
- Couples in which the woman is pregnant and the man has traveled to or lives in an area with Zika should use condoms, or not have sex during the pregnancy.
- All travelers should take steps to prevent mosquito bites during travel to endemic areas and apply insect repellent for 3 weeks after travel. This is intended to prevent the transmission of Zika within the US.

Zika Laboratory Testing:

Currently DLS is sending our specimens to CDC Fort Collins, where testing is performed for three Arboviruses-ZIKA, CHIKV and Dengue. These specimens are tested for IgM antibodies and for viral RNA using RT-PCR for each of these 3 viruses due to the potential for cross reactivity with these viruses. Any positive IgM is confirmed using a neutralization antibody test called plaque reduction neutralization test (PRNT).



CDC has designed a lab testing algorithm as guidance for the appropriate times to collect specimens in order to make a correct diagnosis. According to this algorithm, any patient who has had <7 days symptoms/exposure would receive RT-PCR testing for each virus. If exposure/symptoms are >4 days, they are also tested for IgM antibodies; if that is positive, neutralization testing is performed to confirm results.

For any sample that is collected before 7 days of exposure/symptoms for IgM antibody testing, it would be prudent to collect a convalescent sample (2-12 weeks), to confirm the presence or absence of infection. .

Division of lab services is working to bring testing for Zika virus in house using an Emergency Use Authorization (EUA) pathway in collaboration with CDC. Until then, we will continue sending all specimens to CDC, Fort Collins.

Zika Surveillance Update:

- There are three basic components of Zika Surveillance that will occur:
 - Surveillance for travelers to affected areas that are symptomatic, collection of lab testing information and patient information on these possible cases, especially pregnant women.
 - Collection of information on babies born to Zika-positive women (sometime during pregnancy) who have microcephaly or birth defects at birth
 - Follow-up of babies who are born healthy to women who were Zika-positive during their pregnancy for one year to detect any future sequelae from Zika infection
- The prenatal exposure data collection for pregnant women and babies will be conducted by our Reportable Disease Section as described by Shelley Wood
- Collection of information on symptomatic babies will be conducted by our Maternal and Child Health Division the same as other birth defects. This will be described by Trina Miller on this call.
- Follow-up of healthy babies will most likely be conducted by CDC but a final determination has not yet been made. We are looking into this and waiting to see their process. Either way, it will involve phone contact with the provider at 6 months and 1 year to collect developmental assessment information on the baby, including head circumference, vision, and hearing checks, and neurological assessment.
- If Zika Virus becomes endemic in Kentucky, we will likely be modifying this process due to an increased burden of testing and especially initial inquiries to rule out people for testing.



- This already involves infectious disease staff at local health departments, such as Regional Epidemiologists and infectious disease nurses in conducting the prenatal data collection so likely a larger burden of that data collection would be spread out to the local health departments to make the data collection manageable.

Pregnancy Registry and Birth Surveillance:

- Currently we plan to use the EPID 200 Main Reporting Form for Zika Reporting. If the Zika case is female, please be sure to note if the woman is pregnant on the form. We will follow up using the CDC Zika Pregnancy registry forms, which are currently under development. These forms include:
 - Mother's Zika Virus Infection form
 - Neonate Assessment at Delivery form
 - Infant Follow-up forms at 2 months, 6 months, 12 months
- Important information about completing the live birth certificate and the stillbirth certificate is as follows; If a baby is born with microcephaly, in box 54 please check "Other" and write "microcephaly". On the Stillbirth certificate, if the baby has microcephaly, please check "other" in box 40 and write "microcephaly".
- The Division of Maternal and Child Health will develop a letter for hospitals and providers that will discuss the importance of completing the live birth certificate and the stillbirth certificate in regards to microcephaly as mentioned above.
- The KY Birth Surveillance Registry (KBSR) currently completes chart abstraction for specific birth defects. In April, they will begin looking for microcephaly during this process.

Vector Surveillance and Control:

- Public Health Protection and Safety (PHPS) is increasing capacity to provide mosquito surveillance across the state by purchasing additional traps and increasing the contract amount with the University of Kentucky's Department of Entomology.
- PHPS is also increasing capacity to control mosquitoes by offering additional pesticide training that will certify local health department environmental health staff to apply larvicide in areas known to harbor breeding mosquitoes.
- PHPS has distributed mosquito prevention and control materials to LHDs in the form of a "tool kit" and encourage them to engage their partners and community members in order to raise awareness about how they can better prevent and protect themselves from mosquitoes. These materials include, but are not limited to, sample press releases/news articles, posters and pamphlets, sample PowerPoint presentation and Zika "Fight the Bite"



graphic for additional outreach materials. These materials will focus on the “Three Ds” which includes: **Drain** areas where mosquitoes can breed, **Dress** in long sleeves and pants when outdoors and **Defend** against mosquito bites by properly using an EPA approved insect repellent.

- A reminder that the mosquito of greatest concern is one that has a relatively short flight range and prefers to breed in containers commonly found around the home. For those reasons, it is imperative that homeowners eliminate potential breeding sites and ensure all screens, doors, windows and other potential openings to their homes remain closed and in good repair to prevent mosquitoes from entering the home.
- Medical providers are encouraged to share this and other information on how to prevent and control mosquitoes with their patients. Numerous CDC and EPA documents and visual aides to assist with this can be found on the KDPH Health Alert Network webpage.

Zika Virus Prevention and Communication:

- FIGHT THE BITE: DAY AND NIGHT is the motto for this educational engagement with the communities
- Tool Kits: environmental and clinical will be distributed to LHDs
- Engagement of LHDs with city and county elected officials regarding community awareness and prevention will be very important if we are to be successful.
- Real-time dissemination of information to healthcare providers is an imperative as we learn more about the disease itself, and the actionable things that will need to be done.
- Media day, May 9 at the KSU farm will provide a communication opportunity to provide relevant information to the press and the public on prevention.
- Access to the KDPH web-site and tweeting activities are being encouraged.
- How do you want to receive up-to-date, real-time information? We continue to evolve our methods of communication with providers throughout the state.