EPI Update for Friday, February 26, 2016

Center for Acute Disease Epidemiology (CADE)

Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Three cases of Zika virus in Iowa**
- **Interim influenza vaccine effectiveness**
- **Sexual transmission of Zika**
- **Staff changes within CADE**
- **Meeting announcements and training opportunities**

Three cases of Zika virus in Iowa

Two Iowa women, who recently traveled to countries where Zika virus transmission is ongoing, tested positive for the virus this week. This brings the total of Zika virus cases in Iowa to three. All three Iowans had traveled to either the Caribbean, Central America or South America.

In Iowa, the general public is not at risk of contracting this virus because the mosquitoes that transmit Zika are not established in Iowa; however, Iowans traveling to areas where there is ongoing Zika virus transmission should take care to protect themselves from mosquito bites.

Healthcare providers suspecting Zika virus infection should contact CADE at 800-362-2736. CADE staff will work with the provider to determine if the patient meets CDC testing criteria. If testing is warranted, the correct specimen will be determined and arrangements made for the courier to pick up specimens and deliver them to the State Hygienic Laboratory. The specimen(s) will then be packaged and sent to CDC for testing.

For more information about Zika, visit www.idph.iowa.gov/ehi/zika or www.cdc.gov/zika/disease-qa.html.

Interim influenza vaccine effectiveness

CDC has reported the preliminary overall influenza vaccine effectiveness (VE) for preventing clinic visits is 59 percent.

The following specific VE estimates were released:

- 51 percent VE against the H1N1 viruses responsible for most flu illness this season
- 76 percent VE against all influenza B viruses
- 79 percent VE against the B/Yamagata lineage of B viruses

Until more data is available, VE by age group, VE against H3N2 viruses, or B/Victoria lineage viruses cannot be calculated. The interim VE estimates are based on data collected from the U.S. Flu VE Network from November 2, 2015 through February 12,

2016. For more information on influenza laboratory and disease surveillance data, visit www.cdc.gov/flu/weekly/fluactivitysurv.htm. For more information on influenza activity in Iowa, visit idph.iowa.gov/influenza.

Sexual transmission of Zika

"Immune privilege" is an evolutionary adaptation meant to shield the brain, eyes, and testes from the immune system, but as a result, these areas have fewer defenses against invading pathogens**.** This has happened with both Ebola and Zika viral infections.

In March 2015, a Liberian woman was diagnosed with Ebola after the country had been declared Ebola-free. She had no known direct exposure to Ebola, but had recently had unprotected intercourse with a male who had been hospitalized for Ebola in October, 2014. The male was tested again for Ebola and although his blood was negative, his semen was positive. Recent studies indicate the Ebola virus can be detected up to 406 days (after the onset of symptoms) in the semen. This is well beyond clinical recovery and disappearance of the virus from blood.

It appears Zika virus may also be transmitted sexually. In August 2008, a male returned to Colorado after completing a mosquito-sampling project in Senegal. He fell ill with symptoms consistent with Zika and developed hematospermia. Later, his non-traveling wife became symptomatic. Zika serology was positive in both individuals, indicating sexual transmission. Also, in December 2013, a male from Tahiti who developed symptoms of Zika with hematospermia was tested and virus was found in his semen, but not in his blood. Recently (February 2016), a case of sexual transmission in Dallas was confirmed by CDC and 14 additional cases of possible sexual transmission are being investigated.

CDC recommends that males returning from areas of active Zika transmission abstain from sexual activity or consistently use condoms with a pregnant sexual partner to prevent transmission to the woman and the fetus. Males returning from areas of active transmission with non-pregnant partners should consider these measures as well.

Further studies are currently being conducted to determine the duration of viral persistence in semen, time of fetal vulnerability during pregnancy, and the impact of sexual transmission on Zika epidemiology. Recommendations will be modified as more information becomes available.

For CDC guidelines on sexual transmission of Zika virus, see www.cdc.gov/mmwr/volumes/65/wr/mm6505e1.htm. For WHO guidelines regarding

sexual transmission of Ebola virus, see
www.who.int/reproductivehealth/topics/rtis/ebola-virus-semen/en/.

Staff changes within CADE

After 33 years of dedication to promoting the health of Iowans, Matt Hobson has retired. We appreciate Matt's leadership on public health issues, both within the department and in coordination with associations and community partners. Prior to joining CADE, Matt spent many years working as a disease prevention specialist within the department's STD program. Matt's broad experience and expertise have been invaluable to the department.

Andy Weigel has accepted a field epidemiologist position within CADE. Andy has over 15 years of experience working for the Johnson County Public Health Department and he will bring great perspective and experience to the position. Andy will be working with the northern Iowa counties previously assigned to Matt.

And finally, Jill Newland will be joining CADE as the Iowa Disease Surveillance System Data Manager. Jill's prior experience as a medical secretary will be very valuable in her new position.

Meeting announcements and training opportunities

None

Have a healthy and happy (and warmer) week!

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800-362-2736