



EPI WATCH

Monthly Epidemiology and Preparedness Newsletter

July 2016

Florida Department of Health in Pinellas County

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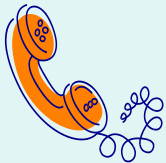
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For more information, or to add your e-mail address to the distribution list, please contact the Editor.

Division of Disease Control and Health Protection



Disease Reporting

To report diseases and clusters of illness:

Phone: (727) 824-6932
Fax: (727) 820-4270
(excluding HIV/AIDS)

To Report HIV/AIDS
by mail:

Surveillance Room 3-138
205 Dr. MLK Jr St. N
St. Petersburg, FL 33701

Animal Bite Reporting:

Phone: (727) 524-4410
x7665

Yellow Fever: Angola and DRC Outbreak Update



As the yellow fever outbreak in Angola and Democratic Republic of the Congo (DRC) continues, the World Health Organization (WHO) and other public health partners are working to support the local government activities and implement an emergency vaccination campaign. The outbreak began in Angola in December 2015 and since then over 3,625 suspected cases have been reported, of which 876 have been confirmed. In addition, the DRC has investigated over 1,790 suspected cases of yellow fever. Despite a mass reactive vaccination campaign, circulation of the virus persists. Ongoing transmission has been identified in heavily populated cities in both Angola and DRC; however, the risk is high for potential spread to new provinces and countries.

Yellow fever is an acute viral hemorrhagic disease transmitted by infected mosquitoes. The "yellow" in the name refers to the jaundice that some infected individuals develop. Additional symptoms of yellow fever include fever, headache, muscle pain, nausea, vomiting and fatigue. The Centers for Disease Control and Prevention (CDC) reports that 15% of individuals who contract the virus develop illness that can lead to organ failure and sometimes death. The virus is endemic in tropical areas of Africa and Central and South America.

A single dose of yellow fever vaccine is sufficient to confer sustained immunity and life-long protection against yellow fever disease. In countries with a high risk for yellow fever, more specific vaccination recommendations have been outlined. The vaccine provides effective immunity within 30 days for 99% of persons vaccinated. At this time, the manufacturer of yellow fever vaccine has notified CDC that supplies are limited and ordering restrictions have been implemented. The CDC is recommending that people who have never been vaccinated against yellow fever should not travel to Angola.

For up to date information on the yellow fever and the ongoing outbreak, please refer to the CDC website <http://www.cdc.gov/yellowfever/index.html> and the WHO situation reports <http://www.afro.who.int/en/yellow-fever/>

Zika Reports in the MMWR

Suspected Female-to-Male Sexual Transmission of Zika Virus — New York City, 2016

Early release: July 15, 2016

The New York City Department of Health and Mental Hygiene recently reported a suspected female-to-male sexual transmission of Zika virus. A woman engaged in sex without a condom with a male partner the day she returned to NYC from travel to an area with ongoing Zika virus transmission. Her serum and urine later tested positive for Zika virus RNA. Seven days after intercourse with the woman, the male partner developed Zika-related symptoms. Zika virus RNA was detected in his urine but not serum. An extensive interview revealed the man had not traveled outside the United States during the year before his illness, had any other recent sexual partners, or been bitten by a mosquito.

Projected Zika Virus Importation and Subsequent Ongoing Transmission after Travel to the 2016 Olympic and Paralympic Games — Country-Specific Assessment, July 2016

Early release: July 13, 2016

The 2016 Olympic and Paralympic Games (Games) will be hosted in Rio de Janeiro, Brazil during August–September 2016. As of June 30, 2016, CDC had issued Zika-related travel notices for 49 countries and U.S. territories, including Brazil. Mosquito-borne Zika virus transmission is expected to be low during the Games, because they will be held during the winter season in Brazil and cooler, drier temperatures generally reduce mosquito populations. This report provides a risk assessment for importation and sustained, local mosquito-borne transmission of Zika virus from travel to the Games.

The complete MMWR reports are available here: <http://www.cdc.gov/mmwr/index.html>

The Florida Sentinel Chicken Surveillance Program, Past and Present

By Sheila Alaghemand, MPH

The subtropical and temperate climate in Florida is optimal for mosquito breeding and reproduction all year round. Mosquitoes are ideal vectors that can transmit debilitating and fatal diseases to both humans and animals, such as St. Louis encephalitis (SLE), a viral disease and the earliest mosquito related epidemic recorded in Florida. In 1959-1961, roughly 222 people were infected with SLE, resulting in 43 fatalities during its final year¹. This outbreak demonstrated the importance of mosquito surveillance programs in protecting the health of the public. Following the SLE outbreak, sentinel chickens became a vital tool for understanding the epidemiology of the disease and for preparing for future outbreaks. As a result, the Florida Sentinel Chicken Surveillance Program was established in 1978 to monitor arboviral (a virus that can be transmitted from the bite of a mosquito, tick or flea) diseases circulating in the state.

Domestic chickens are the preferred birds for sentinel surveillance because they are usually vulnerable to infection, resistant to the effects of the disease, will have an observable immune response, and are typically dead-end-hosts (cannot pass the virus to other mosquitoes). The goal of this surveillance is monitor for an increase in the circulation of the virus so control measures can be implemented early enough to prevent transmission to humans².

The Sentinel Chicken Program originally ran surveillance for Eastern Equine Encephalitis Virus (EEEV), Highlands J (HJ), and St. Louis Encephalitis (SLE). West Nile Virus (WNV) was added to the Florida surveillance program in 2001 after its introduction to New York in 1999, and its rapid spread throughout the United States³. Florida currently has 34 of its 67 counties participating in the program, placing thousands of sentinel chickens at different sites throughout the state to monitor arboviral enzootic transmission on a weekly basis.

Pinellas County Mosquito Control manages the program locally. Blood is collected each week from the sentinel chickens and shipped to the Department of Health, Bureau of Public Health Laboratories in Tampa to test for EEEV, HJ, SLE, and WNV antibodies. If a chicken comes back positive for the antibodies they are removed from the flock and replaced with a non-infected chicken. The information on the number of infected chickens is relayed back to Mosquito Control and the Epidemiology Program so the data can be analyzed for arboviral trends, and to determine if control measures need to be implemented. Information on the weekly arboviral surveillance reports can be found on the Department of Health (DOH) website: <http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/surveillance.html>. The report includes arboviral activity in humans, sentinel chickens, and other animals, such as horses and deer.

One of the best ways to protect yourself from an arboviral infection is to limit the mosquito breeding sites around your home. According to Pinellas County Mosquito Control, mosquitoes only need 1/4 to 1/2 inch of standing water to survive. Protect yourself from mosquito bites when working outdoors by wearing mosquito repellent and covering skin with long sleeves and pants.

Additional information about Pinellas County Mosquito Control can be found at <http://www.pinellascounty.org/residents.htm>



Sources:

¹Azar, G. J., Bond, J. O., Chappell, L., & Lawton, A. H. (1966). FOLLOW-UP STUDIES OF ST. LOUIS ENCEPHALITIS IN FLORIDA: SENSORIMOTOR FINDINGS. American Journal of Public Health, 1074-1081.

²Florida Department of Health. (2014). Surveillance and Control of Selected Mosquito-borne Diseases in Florida . Retrieved 02 25, 2015, from Mosquito-borne and Other Insect-borne Diseases: <http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/>

³Johnson, A. J., Langevin, S., Wolff, K. L., & Komar, N. (2003). Detection of Anti-West Nile Virus Immunoglobulin M in Chicken Serum by an Enzyme-Linked Immunosorbent Assay. Journal Of Clinical Microbiology, 2002-2007

Selected Reportable Diseases in Pinellas County

| Disease | Pinellas | | YTD Total | | Pinellas County Annual Totals | | |
|--|-----------|-----------|---------------|--------------|-------------------------------|------|------|
| | June 2016 | June 2015 | Pinellas 2016 | Florida 2016 | 2015 | 2014 | 2013 |
| A. Vaccine Preventable | | | | | | | |
| Measles | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| Mumps | 0 | 0 | 0 | 6 | 0 | 0 | 0 |
| Pertussis | 0 | 0 | 9 | 173 | 17 | 19 | 17 |
| Varicella | 1 | 2 | 53 | 440 | 38 | 35 | 19 |
| B. CNS Diseases & Bacteremias | | | | | | | |
| Creutzfeldt-Jakob Disease (CJD) | 0 | 1 | 0 | 5 | 3 | 0 | 0 |
| Meningitis (Bacterial, Cryptococcal, Mycotic) | 1 | 1 | 5 | 63 | 6 | 4 | 5 |
| Meningococcal Disease | 0 | 0 | 0 | 7 | 1 | 0 | 1 |
| C. Enteric Infections | | | | | | | |
| Campylobacteriosis | 6 | 20 | 48 | 937 | 104 | 103 | 63 |
| Cryptosporidiosis | 2 | 2 | 11 | 208 | 49 | 240 | 19 |
| Cyclosporiasis | 0 | 0 | 0 | 4 | 3 | 0 | 5 |
| <i>E. coli Shiga Toxin (+)</i> | 1 | 0 | 1 | 80 | 2 | 6 | 7 |
| Giardiasis | 3 | 5 | 16 | 578 | 30 | 42 | 34 |
| Hemolytic Uremic Syndrome (HUS) | 0 | 0 | 0 | 5 | 0 | 0 | 1 |
| Listeriosis | 1 | 0 | 1 | 17 | 2 | 0 | 0 |
| Salmonellosis | 18 | 18 | 60 | 1994 | 196 | 216 | 203 |
| Shigellosis | 1 | 18 | 12 | 330 | 174 | 21 | 5 |
| D. Viral Hepatitis | | | | | | | |
| Hepatitis A | 0 | 0 | 2 | 51 | 4 | 2 | 6 |
| Hepatitis B: Pregnant Woman +HBsAg | 3 | 3 | 16 | 212 | 37 | 21 | 17 |
| Hepatitis B, Acute | 6 | 2 | 31 | 286 | 57 | 44 | 39 |
| Hepatitis C, Acute | 3 | 1 | 23 | 131 | 32 | 19 | 17 |
| E. VectorBorne/Zoonoses | | | | | | | |
| Animal Rabies | 0 | 0 | 2 | 41 | 1 | 2 | 0 |
| Rabies, possible exposure | 16 | 6 | 60 | 1597 | 114 | 190 | 193 |
| Chikungunya Fever | 0 | 0 | 1 | 8 | 2 | 10 | 0 |
| Dengue | 0 | 0 | 1 | 38 | 3 | 1 | 2 |
| Eastern Equine Encephalitis | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lyme Disease | 3 | 0 | 5 | 44 | 6 | 5 | 8 |
| Malaria | 0 | 1 | 0 | 20 | 2 | 3 | 1 |
| West Nile Virus | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Zika Virus | 2 | 0 | 6 | 197 | 0 | 0 | 0 |
| F. Others | | | | | | | |
| AIDS** | 15 | 9 | 71 | n/a | 118 | 129 | 114 |
| HIV** | 26 | 29 | 157 | n/a | 252 | 171 | 157 |
| Chlamydia | 319 | 346 | 2052 | n/a | 4147 | 3853 | 4141 |
| Gonorrhea | 132 | 131 | 784 | n/a | 1438 | 1295 | 1424 |
| Hansen's Disease | 0 | 0 | 0 | 8 | 0 | 0 | 0 |
| Lead Poisoning: Children < 6 years: | 1 | 0 | 2 | 66 | 6 | 8 | 4 |
| Legionellosis | 1 | 0 | 6 | 114 | 18 | 13 | 10 |
| Mercury Poisoning | 0 | 0 | 0 | 14 | 1 | 2 | 0 |
| Syphilis, Total | 36 | 16 | 188 | n/a | 283 | 186 | 114 |
| Syphilis, Infectious (Primary and Secondary) | 19 | 9 | 99 | n/a | 151 | 75 | 52 |
| Syphilis, Early Latent | 12 | 5 | 67 | n/a | 83 | 61 | 37 |
| Syphilis, Congenital | 0 | 0 | 0 | n/a | 3 | 0 | 0 |
| Syphilis, Late Syphilis (Late Latent; Neurosyphilis) | 5 | 2 | 22 | n/a | 52 | 50 | 25 |
| Tuberculosis | 1 | 2 | 8 | n/a | 14 | 25 | 30 |
| <i>Vibrio Infections</i> | 0 | 1 | 2 | 74 | 11 | 10 | 11 |

n/a = not available at this time. Blank cells indicate no cases reported. Reportable diseases include confirmed and probable cases only. All case counts are provisional. Data is collected from the Merlin Reportable Disease database, surveillance systems maintained at the Florida Department of Health in Pinellas County, and Florida CHARTS <http://www.floridacharts.com/charts/default.aspx>.

*STD data in PRISM is continually updated. Please note, data from the previous month takes up to an additional month or more to be correctly updated.

**Current HIV Infection data by year of report reflects any case meeting the CDC definition of 'HIV infection' which includes all newly reported HIV cases and newly reported AIDS cases with no previous report of HIV in Florida. If a case is later identified as being previously diagnosed and reported from another state, the case will no longer be reflected as a Florida case and the data will be adjusted accordingly. Data from the most recent calendar year (2015 or 2016) are considered provisional and therefore should not be used to confirm or rule out an increase in newly reported cases in Florida.