FLORIDA DEPARTMENT OF HEALTH IN PINELLAS COUNTY

EPI WATCH

Monthly Epidemiology Newsletter

September 2018

Florida Department of Health in Pinellas County
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Division of Disease Control and Health Protection

Disease Reporting

To report diseases and clusters of illness:

Phone: (727) 824-6932

Fax: (727) 484-3865 (excluding HIV/AIDS)

To report HIV/AIDS by mail:

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

Prenatal Tdap Vaccination

By Rachel Steele, MPH, CPH

Infants younger than a year old are not yet fully vaccinated against tetanus, diphtheria, and pertussis and are vulnerable to higher rates and greater severity of pertussis infection[1,2]. As immunity in the general population continues to decrease, the Advisory Committee on Immunization Practices (ACIP) has explored new strategies to prevent infection in this age group and has found that prenatal vaccination with the pertussis, tetanus and diphtheria (Tdap) vaccine effectively transfers pertussis-specific antibodies to the fetus, which may protect infants against whooping cough two months after birth[2]. ACIP recommends pregnant women receive the Tdap vaccine at 27-36 weeks gestation for every pregnancy, regardless of previous vaccination status[2,3].

Research studies have assessed the safety of the Tdap vaccination in pregnant women pertaining to birth outcomes and have demonstrated no increased risk of low birth weight, preterm delivery, infant hospitalization or infant death, when women are vaccinated prenatally[4]. A recent study published in September 2018 in the journal, *Pediatrics,* evaluated the risk of autism spectrum disorder (ASD) in children whose mothers received Tdap while pregnant. They found that there was no increased risk of ASD in children born to vaccinated women (n=81,993 children, HR: 0.98, 95% confidence interval: 0.77-0.95), further bolstering ACIP's recommendations for prenatal vaccination[5].

For more information on immunizations and disease prevention research for infants, please visit the CDC's research page and CDC's recommendation page.

1. CDC. Immunization schedules. https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html. Updated February 6, 2018. Accessed September 13, 2018.
2. Winter K, Glaser C, Watt J, et al. Pertussis epidemic – California, 2014. MMWR Morb Mortal Wkly Rep. 2014;63(49);1129-32.
3. CDC. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) in pregnant women–Advisory Committee on Immunization Practices (ACIP), 2012. MMWR Morb Mortal Wkly Rep. 2013;62:131–5.
4. ukumaran L, McCarthy ML, Kharbanda EO, et al. Association of Tdap vaccination with acute events and adverse birth outcomes among pregnant women with prior tetanus-containing immunizations. JAMA. 2015;314(15):1581-7: 10.1001/jama.2015.12790.

Measles Update

In August, the Florida Department of Health in Pinellas County identified seven outbreak-associated cases of measles. All cases were unvaccinated for measles. More than 1,400 people who had possible exposure to the cases were identified. Contact was initiated to determine vaccination status, identify potential new cases and prevent further transmission.

Measles is a highly contagious respiratory disease caused by a virus that can be spread through coughing and sneezing. Symptoms typically begin about seven to 14 days after infection and include fever, runny nose and red, watery eyes. Three to five days after symptoms start, a reddish-brown rash will develop from the face downward. Symptoms commonly clear up within a few days; however, complications may occur leading to hospitalization or death.

A total of 11 cases have been reported in Florida to date. Due to high vaccination rates, measles is rare, but sporadic cases do occur annually. The two-dose measles vaccination schedule has been successful at decreasing cases, and measles was eliminated from the United States in 2000. Unfortunately, measles is still common in many parts of the world and unvaccinated individuals (Americans and foreign travelers) get measles while abroad and bring it to the United States.

If a healthcare provider suspects measles, they should contact their local health department immediately (24/7) to ensure timely testing and public health intervention.

More information on Florida cases can be found here: http://www.floridahealth.gov/diseases-and-conditions/vaccine-preventable-disease/measles/index.html

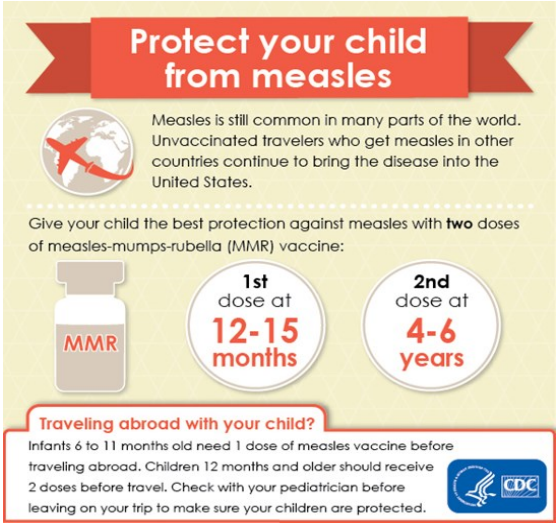
Health Advisories and Alerts

Outbreak of Salmonella Infections Linked to Chicken

Multidrug-Resistant *Salmonella* Infections Linked to Raw Turkey Products

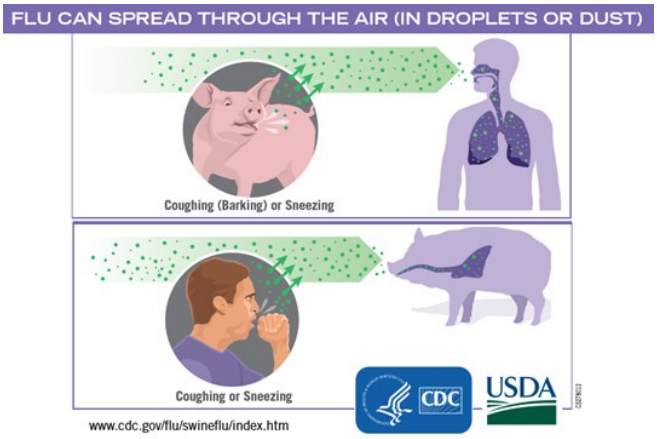
Multistate Outbreak of Cyclosporiasis Linked to Fresh Express Salad Mix Sold at McDonald's Restaurants — United States, 2018

Multistate Outbreak of Vibrio parahaemolyticus Infections Linked to Fresh Crab Meat Imported from Venezuela



Human Infections with Variant Viruses

By Abdiel E. Laureano-Rosario, PhD



Swine Influenza (swine flu) is a respiratory disease caused by type A influenza viruses that circulate in pigs and may cause mild illness among the herd. Although rare, these viruses can infect humans resulting in what is called variant viruses. In 2018, a total of 13 variant viruses have been reported in the United States, including AH3N2v and AH1N2v. Human infections with variant viruses occur after exposure to infected pigs – the infections happen through the air as these pig cough or sneeze, and droplets of influenza are spread[1]. There have been limited reports of variant influenza being transmitted from person-to-person[2]. Swine influenza has not been shown to be transmissible to people through eating properly handled and prepared pork or other products derived from pigs.

Variant virus infections mostly show mild symptoms like the seasonal flu (e.g., fever, lethargy, lack of appetite, coughing), yet severe illness leading to hospitalization and death is possible, depending on their age and health status (e.g., compromised immune system). For example, in 2012 309 cases were reported, with 16 hospitalized and one death[3]. Respiratory specimen would generally be needed (within first four to five days of illness or shedding period) to diagnose variant influenza A virus infection. Nevertheless, children may shed the virus longer. There are three recommended antiviral drugs in the United States for the treatment of influenza: oseltamivir, peramivir, and zanamivir[1].

Recommendations to reduce the risk of infection

People who are at high risk of serious flu complications include children younger than five years, people 65 years and older, pregnant women, and people with certain long-term health conditions. Note: *People with high-risk factors who develop flu symptoms should call a health care provider.*

- Do not take toys, pacifiers, cups, baby bottles, strollers, food or drinks into pig areas.
- Avoid close contact with pigs that look or act ill and wear protective clothing.
- Wash your hands often with soap and running water before and after exposure to pigs.
- Avoid contact with pigs if you have flu symptoms. Wait to have contact with pigs until seven days after your illness started or until you have been without fever for 24 hours without the use of fever-reducing medications.

For more information about variant virus, please visit https://www.cdc.gov/flu/swineflu/keyfacts-variant.htm.

References:
[1] Variant Influenza Viruses: Background and CDC Risk Assessment and Reporting. https://www.cdc.gov/flu/swineflu/variant.htm. Last updated July 5, 2018. Accessed September 12, 2018.
[2] Key Facts about Human Infections with Variant Viruses. https://www.cdc.gov/flu/swineflu/keyfacts-variant.htm. Last updated August 6, 2018. Accessed September 12, 2018.
[3] Reported Infections with Variant Influenza Viruses in the United States since 2005. https://www.cdc.gov/flu/swineflu/variant-cases-us.htm#table-infections Last updated July 6, 2018. Accessed September 12, 2018.

The Centers for Disease Control and Prevention (CDC) Rocky Mountain Spotted Fever (and other tickborne diseases) Toolkit for Healthcare Providers is now available on their website: https://www.cdc.gov/rmsf/resources/toolkit.html. You will be able to find training videos, pocket cards, clinical timeline and of RMSF and a manual highlighting other tickborne diseases of the United States.

RMSF and other spotted fever rickettsioses cases are identified year-round in Florida without distinct seasonality. When evaluating a patient for suspect RMSF/spotted fever rickettsiosis, the appearance of an eschar (open or scabbed sore with a dark center that forms at the location of the tick bite) should be considered and a swab can be collected for confirmatory testing. Additional information can be found here: https://www.cdc.gov/ticks/tickbornediseases/rickettsiosis.html

Please contact DOH-Pinellas, Epidemiology Program at 727-824-6932 for disease reporting and questions related to testing.

Select Reportable Diseases in Pinellas County

	Pinellas		YTD Total		Pinellas County Annual Totals		
Disease	**August 2018**	**August 2017**	**Pinellas 2018**	**Florida 2018**	**2017**	**2016**	**2015**
A. Vaccine Preventable							
Measles	**7**	**0**	**7**	**11**	0	0	0
Mumps	**0**	**0**	**2**	**37**	2	0	0
Pertussis	**7**	**3**	**16**	**228**	35	18	17
Varicella	**1**	**0**	**41**	**553**	24	74	38
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)	**0**	**1**	**0**	**12**	2	2	3
Meningitis (Bacterial, Cryptococcal, Mycotic)	**0**	**0**	**2**	**69**	7	7	6
Meningococcal Disease	**0**	**0**	**1**	**15**	0	0	1
C. Enteric Infections							
Campylobacteriosis	**27**	**27**	**181**	**3331**	207	137	104
Cryptosporidiosis	**7**	**1**	**26**	**389**	40	27	49
Cyclosporiasis	**0**	**3**	**4**	**69**	6	5	3
E. coli Shiga Toxin (+)	**0**	**0**	**9**	**566**	9	3	2
Giardiasis	**5**	**3**	**31**	**745**	45	41	30
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**8**	0	0	0
Listeriosis	**0**	**0**	**1**	**30**	0	2	2
Salmonellosis	**19**	**31**	**146**	**4091**	278	188	196
Shigellosis	**3**	**1**	**36**	**1016**	26	19	174
D. Viral Hepatitis							
Hepatitis A	**9**	**0**	**31**	**180**	0	2	4
Hepatitis B: Pregnant Woman +HBsAg	**1**	**3**	**12**	**264**	25	28	37
Hepatitis B, Acute	**4**	**4**	**33**	**581**	51	68	57
Hepatitis C, Acute	**1**	**3**	**31**	**450**	30	49	32
E. VectorBorne/Zoonoses							
Animal Rabies	**0**	**0**	**4**	**103**	2	4	1
Rabies, possible exposure	**14**	**3**	**96**	**2764**	140	131	114
Chikungunya Fever	**0**	**0**	**0**	**3**	0	1	2
Dengue	**0**	**0**	**0**	**20**	0	2	3
Eastern Equine Encephalitis	**0**	**0**	**0**	**3**	0	0	0
Lyme Disease	**2**	**6**	**9**	**106**	17	11	6
Malaria	**0**	**0**	**0**	**36**	0	0	2
West Nile Virus	**0**	**0**	**0**	**7**	0	1	1
Zika Virus Disease	**0**	**0**	**1**	**99**	5		
F. Others							
Chlamydia	**399**	**403**	**2949**	**n/a**	4188	4133	4168
Gonorrhea	**127**	**156**	**982**	**n/a**	1574	1566	1439
Hansen's Disease	**0**	**0**	**0**	**10**	0	0	0
Legionellosis	**5**	**3**	**15**	**297**	23	19	18
Mercury Poisoning	**1**	**0**	**1**	**35**	1	0	1
Syphilis, Total	**25**	**34**	**274**	**n/a**	382	400	289
Syphilis, Infectious (Primary and Secondary)	**15**	**16**	**128**	**n/a**	160	188	151
Syphilis, Early Latent	**7**	**10**	**86**	**n/a**	128	146	83
Syphilis, Congenital	**0**	**0**	**2**	**n/a**	5	2	3
Syphilis, Late Syphilis (Late Latent; Neuro-syphilis)	**3**	**8**	**58**	**n/a**	89	64	52
Tuberculosis	**2**	**4**	**19**	**n/a**	28	31	14
Vibrio Infections	**0**	**2**	**2**	**162**	11	8	11

n/a = not available at this time.

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.