



EPI-GAZETTE

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The Florida Department of Health in Seminole County
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Epidemiology Update: Influenza

Influenza

Influenza, or flu, is a respiratory illness caused by influenza viruses that can be spread by coughing, sneezing, and close contact. The "flu" is a common catch-all term used for a variety of illnesses, but it correctly applies only to the upper respiratory disease caused by the influenza virus. Estimates are that between 15% and 40% of the population will develop illness from influenza every year. An average of about 36,000 people per year in the United States die from influenza, and 114,000 per year have to be admitted to the hospital as a result of influenza infection. Anyone can get the flu (even healthy people), and serious problems from influenza can happen at any age. People age 65 years and older, people of any age with chronic medical conditions, and very young children are more likely to get complications from influenza. For the most current information about influenza in Florida, please see Florida's weekly surveillance report, the Florida Flu Review, [included below](#) under the Influenza Surveillance section on this page.

Week 52, 2013 Florida Flu Review Surveillance Summary

National:

- **Influenza and influenza-like illness (ILI) levels are increasing nationwide, particularly in the South East region according to Centers for Disease Control and Prevention (CDC) reports.**
- Using Florida ILINet data, CDC calculated minimal ILI intensity for Florida in week 52.

State:

- **In recent weeks the FDOH has received reports of severe influenza illness, including hospitalizations requiring intensive care unit (ICU) care, among pregnant women.**
- None of these women had received the 2013-2014 influenza vaccine.
- **Most Florida counties reported mild influenza activity.** In week 1, 30 counties reported increasing influenza activity.
- **Emergency department (ED) and urgent care center (UCC) ILI visits have decreased slightly in recent weeks and the statewide percent of ED visits for ILI is at typical levels for this time of year.**
- While activity statewide is at expected levels, in recent weeks there has been an increase in the number of pregnant women presenting to EDs for care that is above expected levels for this time of year.

Also in this issue:

- Chikungunya Virus Update
- Reportable Disease Table

- Pregnant women are among those at high risk for severe complications due to influenza infection. More information can be found here: http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/2013/flu-fact-sheet-pregnant-women.pdf
- **In Florida, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) in recent weeks has been influenza A (2009 H1N1).**
 - In week 1, 2 of 13 specimens submitted for influenza testing at BPHL tested PCR positive for influenza. One was PCR positive for influenza A (2009 H1N1) and one was PCR positive for influenza A unspecified. All of these are seasonal strains of influenza.
 - Nationally (including Florida), almost all circulating influenza is a good match for the vaccine.
- **One influenza outbreak (epidemiologically-linked cases of influenza in a single setting) was reported in a Bradford County prison in week 1.**
- **No pediatric influenza-associated deaths were reported in week 1.** One pediatric influenza-associated death has been reported in the 2013-2014 season.
- **The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 52 is lower than the seasonal baseline, based on previous years' data.** Estimated deaths due to pneumonia and influenza are identified using preliminary death certificate data.
- **Because of moderate influenza activity in some regions of the state, Florida reported regional influenza activity to CDC in week 1.** This activity level represents the geographic spread of influenza in Florida.
- For more information on influenza surveillance in Florida visit the Florida Department of Health Influenza website at: <http://www.floridahealth.gov/diseases-and-conditions/influenza/index.html>

Letter to Providers About Severity of Influenza Illness in Pregnant Women

Dear Colleague:

At ten weeks into the 2013-2014 influenza season (September 29th, 2013 to December 12th, 2013) levels of influenza and influenza-like illness are increasing across the state. Influenza A (2009 H1N1) has been identified as the predominantly circulating strain of influenza this season nationwide and in Florida. In recent weeks, the Florida Department of Health has received reports of severe illness, including hospitalizations requiring ICU care, among pregnant women. None of these pregnant women experiencing severe complications had received the 2013-2014 influenza vaccine.

Please encourage your pregnant and postpartum patients to get vaccinated against influenza:

- Influenza is five times more likely to cause severe illness in pregnant women than women who are not pregnant.
 - Changes in immune, heart and lung functions during pregnancy increase the risk for severe complications from influenza
 - Pregnant women with underlying health conditions are at greater risk of serious illness from flu than their healthy counterparts.
 - Influenza infections also increase the risk for premature labor and delivery.
- Pregnant women receiving a recommendation and offer of vaccination by their healthcare provider were over six times more likely to get vaccinated (65%) than women who did not receive a recommendation or offer (10%).
 - The CDC estimates that only 41% of pregnant women have received influenza vaccine so far this influenza season.
- Inactivated influenza vaccines are safe and the best protection for pregnant women and their fetuses.
 - Inactivated trivalent and quadrivalent influenza vaccines are indicated for use in pregnant

women. Pregnancy is contraindicated for vaccination with live attenuated influenza vaccine, which is administered intranasally. Postpartum women, including those who are breastfeeding can receive either type of vaccine.

- Vaccination is indicated at any time during the pregnancy.
- Vaccination during pregnancy has been shown to protect both the mother and her infant (up to 6 months of age) from influenza illness, influenza hospitalizations, and influenza-related preterm birth.
- Inactivated influenza vaccines are safe. No evidence exists to suggest harm to the fetus from maternal vaccination.

Early treatment is important for pregnant women

- Antiviral treatment is recommended **as early as possible** for pregnant or postpartum (within two weeks of delivery) women with confirmed or suspected influenza. Delayed antiviral treatment (longer than 2 days) has been associated with increased risk of severe illness (such as hospitalization and death).
- **Postpartum women and caretakers of children under six months old should get vaccinated** against influenza to protect against transmission of influenza to children too young to be vaccinated.

Influenza A (2009 H1N1) is included in all 2013-2014 influenza vaccine formulations. You play a crucial role in helping to prevent influenza and its severe complications in your patients and their infants. More information can be found at: <http://www.cdc.gov/flu/professionals/vaccination>.

Sincerely,



Anna M. Likos, MD, MPH
Director & State Epidemiologist
Division of Disease Control & Health Protection

Notice to Public Health Officials and Clinicians: Recognizing, Managing, and Reporting Chikungunya Virus Infections in Travelers

Summary

On December 7, 2013, the World Health Organization (WHO) reported the first local (autochthonous) transmission of chikungunya virus in the Americas. As of December 12th, 10 cases of chikungunya have been confirmed in patients who reside on the French side of St. Martin in the Caribbean. Laboratory testing is pending on additional suspected cases. Onset of illness for confirmed cases was between October 15 and December 4. At this time, there are no reports of other suspected chikungunya cases outside St. Martin. However, further spread to other countries in the region is possible.

Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia, especially those who have recently traveled to the Caribbean. Healthcare providers are encouraged to report suspected chikungunya cases to their state or local health department to facilitate diagnosis and to mitigate the risk of local transmission.

Thank You For Your Participation!

The Epidemiology Program would like to thank the following healthcare providers for their diligence in timely reporting from Florida's "List of Reportable Diseases/Conditions":

Joanne Barnett, RN, Central Florida Regional Hospital
 Veronica Butler, RN, Florida Hospital
 Sandra Delahoz, RN, South Seminole Hospital

For more information about Florida's List of Reportable Diseases/Conditions, please contact Peggy Booth, RN at 407-665-3294.

Selected Diseases/Conditions Reported to the Seminole County Health Department	2013 through Week 48	2012 through Week 48	2011 through Week 48	2010–2012 Average through Week 48
AIDS*	28	29	33	35
Animal Bite to Humans**	26	10	13	11.0
Animal Rabies	10	4	5	4.3
Campylobacteriosis	31	42	30	27.7
Chlamydia	1163	1199	1275	1232.0
Cryptosporidiosis	8	6	2	3.7
Cyclosporiasis	1	1	1	1.3
Dengue	2	3	0	2.0
<i>E. coli</i> Shiga toxin-producing	7	9	5	6.3
Giardiasis	9	18	13	21.0
Gonorrhea	249	282	226	276.7
<i>Haemophilus influenzae</i> (invasive)	10	1	4	2.3
Hepatitis A	0	3	3	2.3
Hepatitis B (acute and chronic)	48	63	86	70.0
Hepatitis C (acute and chronic)	338	335	274	298
Hepatitis B in Pregnant Women	4	5	9	7.3
HIV*	53	41	57	50
Lead poisoning	3	9	2	5.0
Legionellosis	10	6	2	3.3
Lyme Disease	5	3	2	2.0
Meningococcal Disease	1	1	0	0.3
Pertussis	8	11	2	4.7
Salmonellosis	77	95	81	96.0
Shigellosis	4	44	15	23.0
<i>S. pneumoniae</i> – drug resistant	12	6	12	11.0
Syphilis	35	27	26	20.0
Tuberculosis	3	5	8	6.0
Varicella	20	15	16	18.0

* HIV data includes those cases that have converted to AIDS. These HIV cases cannot be added with AIDS cases to get combined totals since the categories are not mutually exclusive. Current AIDS/HIV data are provisional at the county level.

** Animal bite to humans by a potentially rabid animal resulting in a county health department or state health office recommendation for post-exposure prophylaxis (PEP), or a bite by a non-human primate.

Reported cases of diseases/conditions in **Bold** are >10% higher than the current three year average for the same time period.

Background

Chikungunya virus is a mosquito-borne alphavirus transmitted primarily by *Aedes aegypti* and *Aedes albopictus* mosquitoes. Humans are the primary reservoir during epidemics. Outbreaks have been documented in Africa, Southern Europe, Southeast Asia, the Indian subcontinent, and islands in the Indian and Pacific Oceans. Prior to the cases on St. Martin, the only chikungunya cases identified in the Americas were in travelers returning from endemic areas.

Clinical Disease

A majority of people infected with chikungunya virus become symptomatic. The incubation period is typically 3–7 days (range, 2–12 days). The most common clinical findings are acute onset of fever and polyarthralgia. Joint pains are often severe and debilitating. Other symptoms may include headache, myalgia, arthritis, or rash. Persons at risk for more severe disease include neonates (aged <1 month) exposed intrapartum, older adults (e.g., ≥ 65 years), and persons with underlying medical conditions (e.g., hypertension, diabetes, or cardiovascular disease).

Diagnosis

Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgia who recently returned from the Caribbean. Laboratory diagnosis is generally accomplished by testing serum to detect virus, viral nucleic acid, or virus-specific immunoglobulin M (IgM) and neutralizing antibodies. During the first week of illness, chikungunya virus infection can often be diagnosed by using viral culture or nucleic acid amplification on serum. Virus-specific IgM and neutralizing antibodies normally develop toward the end of the first week of illness. To definitively rule out the diagnosis, convalescent-phase samples should be obtained from patients whose acute-phase samples test negative.

Chikungunya virus diagnostic testing is performed at CDC, two state health departments (California and New York), and one commercial laboratory (Focus Diagnostics). Healthcare providers should contact their state or local health department to facilitate testing.

Treatment

No specific antiviral treatment is available for chikungunya fever. Treatment is generally palliative and can include rest, fluids, and use of analgesics and antipyretics. Because of similar geographic distribution and symptoms, patients with suspected chikungunya virus infections also should be evaluated and managed for possible dengue virus infection. People infected with chikungunya or dengue virus should be protected from further mosquito exposure during the first few days of illness to prevent other mosquitoes from becoming infected and reduce the risk of local transmission.

Prevention

No vaccine or preventive drug is available. The best way to prevent chikungunya virus infection is to avoid mosquito bites. Use air conditioning or screens when indoors. Use insect repellents and wear long sleeves and pants when outdoors. People at increased risk for severe disease should consider not traveling to areas with ongoing chikungunya outbreaks.

For more information please visit the Chikungunya webpage at the CDC website at:

<http://www.cdc.gov/chikungunya/>

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*Our mission is to protect, promote, and improve the health of all people in Florida
through integrated state, county, and community efforts*

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