In the last several weeks, influenza and influenza-like illness (ILI) activity levels have steadily increased across the state. Several influenza outbreaks in long-term care facilities (LTCF) have already been reported across Florida this season and three (3) pediatric influenza mortalities have been reported.

Influenza A (H3) is the predominantly circulating strain of influenza so far this season nationwide and in Florida. While it is too early to tell if this flu season will be worse than other years, seasons when influenza A (H3) circulates predominantly are often associated with higher morbidity and mortality, particularly in the elderly, very young children, and persons with certain chronic medical conditions compared with seasons during which influenza A (H1N1) or influenza B viruses have predominated.

Influenza viral characterization data indicates that 48% of the influenza A (H3N2) viruses collected and analyzed in the United States from October 1 through November 22, 2014 were antigenically "like" the 2014-2015 influenza A (H3N2) vaccine component, but that 52% were antigenically different (drifted) from the H3N2 vaccine virus. In past seasons during which predominant circulating influenza viruses have been antigenically drifted, decreased vaccine effectiveness has been observed. However, vaccination has been found to provide some protection against drifted viruses. Though reduced, this cross-protection might reduce the likelihood of severe outcomes such as hospitalization and death. In addition, vaccination will offer protection against circulating influenza strains that have not undergone significant antigenic drift from the vaccine viruses (such as influenza A (H1N1) and B viruses).

Because of the detection of these drifted influenza A (H3N2) viruses, the CDC has issued the following guidance to re-emphasize the importance of the use of neuraminidase inhibitor antiviral medications when indicated for treatment and prevention of influenza, as an adjunct to vaccination.

The two prescription antiviral medications recommended for treatment or prevention of influenza are oseltamivir (Tamiflu®) and zanamivir (Relenza®). Evidence from past influenza seasons and the 2009 H1N1 pandemic has shown that treatment with neuraminidase inhibitors has clinical and public health benefit in reducing severe outcomes of influenza and, when indicated, should be initiated as soon as possible after illness onset. Clinical trials and observational data show that early antiviral treatment can:

- shorten the duration of fever and illness symptoms;
- reduce the risk of complications from influenza (e.g., otitis media in young children and pneumonia requiring antibiotics in adults); and
- reduce the risk of death among hospitalized patients.
**Recommendations for Health Care Providers**

- Clinicians should encourage all patients 6 months and older who have not yet received an influenza vaccine this season to be vaccinated against influenza. There are several influenza vaccine options for the 2014-15 influenza season (see [http://www.cdc.gov/flu/protect/vaccine/vaccines.htm](http://www.cdc.gov/flu/protect/vaccine/vaccines.htm)).

- Clinicians should encourage all persons with influenza-like illness who are at high risk for influenza complications (see list below) to seek care promptly to determine if treatment with antiviral medications is warranted.

**Influenza Vaccination**

Clinicians should continue to vaccinate patients who have not yet received influenza vaccine this season.

**Antiviral Use**

Clinical benefit is greatest when antiviral treatment is administered early. When indicated, antiviral treatment should be started as soon as possible after illness onset, ideally within 48 hours of symptom onset. However, antiviral treatment might still have some benefits in patients with severe, complicated, or progressive illness and in hospitalized patients when started after 48 hours of illness onset.

Antiviral treatment with oseltamivir or zanamivir is recommended as early as possible for any patient with confirmed or suspected influenza who:

- is hospitalized;
- has severe, complicated, or progressive illness; or
- is at higher risk for influenza complications. This list includes:
  - children aged younger than 2 years;
  - adults aged 65 years and older;
  - persons with chronic pulmonary (including asthma), cardiovascular (except hypertension alone), renal, hepatic, hematological (including sickle cell disease), and metabolic disorders (including diabetes mellitus), or neurologic and neurodevelopment conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury);
  - persons with immunosuppression, including that caused by medications or by HIV infection;
  - women who are pregnant or postpartum (within 2 weeks after delivery);
  - persons aged younger than 19 years who are receiving long-term aspirin therapy;
  - American Indians/Alaska Natives;
  - persons who are morbidly obese (i.e., body-mass index is equal to or greater than 40); and
  - residents of nursing homes and other chronic-care facilities.

Clinical judgment, on the basis of the patient's disease severity and progression, age, underlying medical conditions, likelihood of influenza, and time since onset of symptoms, is important when making antiviral treatment decisions for high-risk outpatients. Decisions about starting antiviral treatment should not wait for laboratory confirmation of influenza.

**CDC Influenza Guidance**

[http://emergency.cdc.gov/han/han00374.asp](http://emergency.cdc.gov/han/han00374.asp)


**Florida Department of Health Influenza Guidance**


**Influenza Surveillance Data**

[http://www.cdc.gov/flu/weekly/fluactivitysurv.htm](http://www.cdc.gov/flu/weekly/fluactivitysurv.htm)

Influenza Surveillance

Local: Seminole County is reporting MODERATE flu activity for the month of December. Two (2) influenza outbreaks have been reported in Seminole for the 2014-2015 Influenza season in a nursing home. The ESSENCE Syndromic Surveillance system is showing increasing influenza-like illness (ILI) chief complaints.

State: Florida is currently reporting WIDESPREAD flu activity. Forty-three (43) influenza or ILI outbreaks have been reported this flu season. Three (3) pediatric influenza-associated deaths have been reported this season.

The most common influenza subtype detected at the state laboratory is Influenza A (H3).

National: Thirty-six (36) states are reporting WIDESPREAD flu activity. Since October 1, 2014 the CDC has identified an antigenically drifted influenza A (H3N2) strain circulating that is different from the influenza A (H3N2) strain contained in the current 2014-2015 influenza vaccine formulation. Additional information can be found at the following link: http://emergency.cdc.gov/han/han00374.asp

Arbovirus Surveillance

Seminole County Mosquito-borne Illness Statistics 2014 Year to Date:

West Nile Virus: 20 positive Sentinel Chickens
Eastern Equine Encephalitis: N/A
St. Louis Encephalitis: N/A
Dengue: 2 Imported Cases
Chikungunya: 9 Imported Cases
Malaria: 1 Imported Case
Gastrointestinal Illness Surveillance

Gastrointestinal Illness typically follows a trend similar to influenza season, peaking in the winter months. Two foodborne outbreaks were investigated by DOH-Seminole in December.

Food and Waterborne Illness Complaints can be submitted at the following link, a health department employee will follow-up with the complainant by phone: http://www.floridahealth.gov/diseases-and-conditions/food-and-waterborne-disease/online-food-complaint-form.html

Ebola Virus Disease Update

Current Statistics:  
Guinea—2,871 cases  
Liberia—8,478 cases  
Sierra Leone—10,240 cases  

Total Deaths—21,689 (stats as of January 20, 2015)

The United Kingdom has also had an imported case of Ebola and will be declared Ebola free after 42 days have passed without a new case. The U.S., Nigeria, Senegal, Spain, and Mali have all previously reported cases but have since been declared Ebola-free.

The Florida Department of Health continues to encourage healthcare providers and hospitals to prepare for an Ebola case in Florida.

The latest FDOH guidance on Ebola Virus Disease can be found at the following link:  
## Disease Incidence Table-Seminole County

<table>
<thead>
<tr>
<th>Selected Diseases/Conditions Reported to DOH-Seminole</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
<th>2011–2013 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS*</td>
<td>27</td>
<td>38</td>
<td>28</td>
<td>34.3</td>
</tr>
<tr>
<td>Animal Bite to Humans**</td>
<td>35</td>
<td>35</td>
<td>24</td>
<td>28.7</td>
</tr>
<tr>
<td>Animal Rabies</td>
<td>5</td>
<td>10</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Campylobacteriosis</td>
<td>30</td>
<td>33</td>
<td>44</td>
<td>37.7</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>1349</td>
<td>1304</td>
<td>1315</td>
<td>1328.3</td>
</tr>
<tr>
<td>Cryptosporidiosis</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>5.3</td>
</tr>
<tr>
<td>Cyclosporiosis</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Dengue</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>E. coli Shiga toxin-producing</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>14</td>
<td>9</td>
<td>19</td>
<td>14.4</td>
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<tr>
<td>Gonorrhea</td>
<td>282</td>
<td>290</td>
<td>320</td>
<td>287.3</td>
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<tr>
<td>Haemophilus influenza (invasive)</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Hepatitis A</td>
<td>3</td>
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<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Hepatitis B (acute and chronic)</td>
<td>69</td>
<td>48</td>
<td>70</td>
<td>68.7</td>
</tr>
<tr>
<td>Hepatitis C (acute and chronic)</td>
<td>459</td>
<td>312</td>
<td>363</td>
<td>324.7</td>
</tr>
<tr>
<td>Hepatitis B in Pregnant Women</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>HIV*</td>
<td>72</td>
<td>59</td>
<td>38</td>
<td>51.6</td>
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<tr>
<td>Lead poisoning</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>5.7</td>
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<tr>
<td>Legionellosis</td>
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<td>10</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td>Lyme Disease</td>
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<td>4</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Meningococcal Disease</td>
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<td>1</td>
<td>1</td>
<td>0.7</td>
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<tr>
<td>Pertussis</td>
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<td>Salmonellosis</td>
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<td>Shigellosis</td>
<td>50</td>
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<td>S. pneumoniae – drug resistant</td>
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<td>12</td>
<td>7</td>
<td>11</td>
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<tr>
<td>Syphilis</td>
<td>25</td>
<td>18</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>7.67</td>
</tr>
<tr>
<td>Varicella</td>
<td>14</td>
<td>21</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

- * 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. STD/TB data are current through November 2014.

- ** 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 previous three year average for the same time period.

*All Data is Provisional*
Disease Reporting

The Epidemiology Program conducts disease surveillance and investigates suspected occurrences of infectious diseases and conditions reported from physician’s offices, hospitals and laboratories.

Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes.

To report a reportable disease or outbreak during business hours please use the Report of Communicable Disease Form for diseases other than HIV/AIDS, STD, or TB, or contact the Epidemiology Department at (407) 665-3266.

To report an urgent reportable disease or outbreak after hours, please contact (407) 665-3266 and follow the instructions to reach the Epidemiologist on-call 24/7.

Reportable Diseases/Conditions in Florida - Practitioner List
Reportable Diseases/Conditions in Florida - Laboratory List
Disease Reporting Information for Health Care Providers and Laboratories

Foodborne Illnesses Reporting Links:
Report illnesses due to food online 24/7
Report unsafe or unsanitary conditions

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