**Summary**

**National influenza activity:**

Influenza activity is decreasing nationally.

- The Centers for Disease Control and Prevention (CDC) has identified an antigenically drifted influenza A (H3N2) strain circulating nationally and in Florida that is different from the strain of influenza A (H3N2) contained in the current 2014-15 influenza vaccine formulations.
- The CDC indicates this season’s vaccine is offering reduced protection, so the use of neuraminidase inhibitor antiviral medications for treatment and prevention of influenza is more important than ever. Individuals at high risk of complications from influenza infection with suspected influenza should be treated with antivirals as early as possible, even prior to laboratory confirmation. More information can be found here: [http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/Other/influenza-letter-for-health-care-providers.pdf](http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/Other/influenza-letter-for-health-care-providers.pdf).
- The CDC indicates that antiviral medications are underutilized; one study estimates antivirals were only used one out of five times where antivirals use would be recommended.

**State Influenza and influenza-like illness (ILI) activity:**

- Due to declining influenza activity around the state, Florida reported regional activity to the CDC in week 11. Regional refers to the geographic spread of influenza across Florida.
- The 2014-15 influenza season began early.
- Influenza and ILI continue to decline statewide in all surveillance systems, and data suggest that the season peaked in week 52.
- Seasons like this one, where influenza A (H3) is the predominantly circulating strain, are typically associated with higher morbidity and mortality, particularly in adults ≥65 years old.
- Visits for ILI to emergency departments (ED) have declined and are at similar levels to those seen during previous years at this time. Visits in adults ≥65 years old have declined overall but remain slightly above levels seen in previous years at this time.
- 73 (72%) of reported outbreaks of ILI have been in facilities that primarily serve adults ≥65 years old.
- The number of pneumonia and influenza (P&I) associated deaths have declined in recent weeks but are above levels seen during previous years at this time. Increases in deaths at this point in the season are expected during severe influenza years where vaccine effectiveness is reduced, like this one.
- In Florida, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) in recent weeks has been influenza B. The increase in influenza B late in the season follows previous yearly trends and may also be responsible for increased influenza activity in the north region of the state.
- In the past week, 26.7% of 30 specimens submitted to BPHL for influenza testing were PCR positive for seasonal strains of influenza: one was positive for influenza B Yamagata lineage, two were influenza B Victoria lineage, two were influenza B not yet subtyped, two were influenza A (H3), and one was influenza A not yet subtyped.
- Two outbreaks of influenza (two or more cases of influenza or ILI in a specific setting) were reported to EpiCom in week 11.
- No pediatric influenza-associated deaths were reported in week 11.

**Map 1: County Influenza Activity Week 11, 2015**

Four counties reported moderate influenza activity. For more information, see page 7.

**Map 2: Influenza and ILI Outbreaks Week 11, 2015**

One hundred and two outbreaks of ILI or influenza have been reported since Week 40, 2014. For more information, see page 11.

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**Weekly state influenza activity:**

Predominantly circulating influenza strain this season:

- **A (H3)**

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ILINet is a nationwide surveillance system composed of sentinel providers: most of which are sentinel outpatient physicians. Florida has 107 sentinel providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the BP HL for confirmatory testing.

**FIGURE 1** shows the percentage of visits for ILI* reported by ILINet sentinel providers statewide.

The percent of visits to ILINet sentinel providers for ILI has decreased in week 11 and is now below levels seen in previous years at this time.

**FIGURE 2** shows ILI visit counts reported by ILINet sentinel providers statewide by age group.

In week 11, the number of ILI visits to ILINet sentinel providers decreased in all age groups.

**TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 11**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 11</th>
<th>Previous Week 10</th>
<th>Page of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall statewide activity code reported to CDC</td>
<td>No Change</td>
<td>Regional</td>
<td>Regional</td>
<td>1</td>
</tr>
<tr>
<td>Percent of visits to ILINet providers for ILI</td>
<td>▼ 0.6%</td>
<td>0.9%</td>
<td>1.5%</td>
<td>2</td>
</tr>
<tr>
<td>Percent of ED and UCC visits (from ESSENCE-FL) due to ILI</td>
<td>▼ 0.3%</td>
<td>2.2%</td>
<td>2.5%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▼ 21.9%</td>
<td>26.7%</td>
<td>48.6%</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting moderate influenza activity</td>
<td>▲ 2</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Number of counties reporting widespread influenza activity</td>
<td>No Change</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Number of counties reporting increasing influenza activity</td>
<td>▼ 1</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Number of counties reporting decreasing influenza activity</td>
<td>▲ 6</td>
<td>36</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>Number of ILI outbreaks reported in EpiCom</td>
<td>No Change</td>
<td>2</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

**Influenza-Like Illness: Statewide**

ILINet is a nationwide surveillance system composed of sentinel providers: most of which are sentinel outpatient physicians. Florida has 107 sentinel providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the BP HL for confirmatory testing.

*ILI = Influenza-like illness, fever >100°F AND sore throat and/or cough in the absence of another known cause.

*Data presented here are counts, not proportions as included in Figure 1. This is because age group denominator data is not available through ILINet.
ESSENCE-FL collects data daily from 236 emergency departments (EDs) and urgent care centers (UCCs). These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is ILI, which is composed of chief complaints that include the words "influenza" or "flu," or complaints that contain fever plus cough or sore throat.

**FIGURE 3** shows ESSENCE-FL data on ILI visits to EDs and UCCs as a percentage of all visits.

The percent of visits to EDs and UCCs for ILI is slightly below levels seen in previous years at this time.

**FIGURE 4** shows percentage of ILI among all ED and UCC visits by age.

In recent weeks, the proportion of ED and UCC visits for ILI has decreased in all age groups and is similar to levels seen in previous years in all age groups at this time. Activity remains highest in children.

ESSENCE-FL Syndromic Surveillance: Regional

Map 3: Emergency Departments and Urgent Care Centers Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force (RDSTF), March 25, 2015 (N=236)
FIGURE 5 - FIGURE 11 describe ED and UCC chief complaint data from ESSENCE-FL by Regional Domestic Security Task Force (RDSTF) regions.

ED and UCC visits for ILI in RDSTF Regions 2, 3, 4, 6 and 7 are at or near levels seen during previous years at this time.

ED and UCC visits for ILI in RDSTF Region 1 and 5 are below levels seen during previous years at this time.

*There is no week 53 for the 2010-2011, 2011-2012, and 2013-2014 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.
ESSENCE-FL collects data daily from 236 EDs and UCCs. These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is ILI, which is composed of chief complaints that include the words "influenza" or "flu," or complaints that contain fever plus cough or sore throat. The Department of Health (DOH) uses ED and UCC chief complaint data to monitor influenza and ILI activity in a timely manner in groups at higher risk of severe health outcomes (such as hospitalization and death) from influenza infection. These at-risk groups include pregnant women, children ≤18 years old and adults ≥65 years old.

**FIGURE 12** shows ESSENCE-FL data on the number* of visits where influenza was mentioned in the chief complaint when presenting for care at EDs and UCCs by pregnant women.

In the past few weeks, the number of visits* by pregnant women presenting to EDs and UCCs with mention of influenza has declined. 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/Other/influenza-guidance-for-health-care-providers.pdf

**FIGURE 13** shows the percentage of ILI among all ED and UCC visits for children ≤18 years old.

The percentage of ED and UCC visits for ILI in children ≤18 years old is slightly below levels seen in previous years at this time.

**FIGURE 14** shows the percentage of ILI among all ED and UCC visits for adults ≥65 years old.

The percentage of ED and UCC visits for ILI in adults ≥65 years old is similar to levels seen in previous years at this time.
Bureau of Public Health Laboratories Viral Surveillance

**FIGURE 15**

**FIGURE 16**

use BPHL viral surveillance data to track the progress of influenza infection over time. They include weekly information on how many specimens are tested by the BPHL, what proportion of those test positive for influenza and what subtypes are identified.

**TABLE 2** shows the number of specimens tested by BPHL, how many are influenza positive and their subtypes.

Influenza A (H3) and influenza B have been identified by BPHL this season.

In recent weeks, influenza specimens submitted to BPHL tested positive for influenza A (H3), influenza B Yamagata lineage, and influenza B Victoria lineage.

Overall, influenza A (H3) has been the most common strain of influenza detected by BPHL so far in the 2014-2015 influenza season, although in recent weeks, a greater proportion of influenza B viruses have been isolated.

The drifted influenza A (H3) strain has been detected in Florida.

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**Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance for Week 11 by Lab Event Date** as reported by 10:00 a.m. March 25, 2015

<table>
<thead>
<tr>
<th>Subtype</th>
<th>Current Week 11</th>
<th>Previous Week 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Specimens Tested</td>
<td>30</td>
<td>48</td>
</tr>
<tr>
<td>Influenza positive specimens (% of total)</td>
<td>8 (26.7%)</td>
<td>25 (48.6%)</td>
</tr>
<tr>
<td>Influenza A (2009 H1N1) (% of influenza positives)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Influenza A (H3) (% of influenza positives)</td>
<td>2 (25.0%)</td>
<td>2 (8.0%)</td>
</tr>
<tr>
<td>Influenza A not yet subtyped (% of influenza positives)</td>
<td>1 (12.5%)</td>
<td>1 (4.00%)</td>
</tr>
<tr>
<td>Influenza B Yamagata (% of influenza positives)</td>
<td>1 (12.5%)</td>
<td>17 (68.0%)</td>
</tr>
<tr>
<td>Influenza B Victoria (% of influenza positives)</td>
<td>2 (25.0%)</td>
<td>4 (16.0%)</td>
</tr>
<tr>
<td>Influenza B not yet subtyped (% of influenza positives)</td>
<td>2 (25.0%)</td>
<td>1 (4.0%)</td>
</tr>
</tbody>
</table>

*Please note that lab event date is defined as the earliest of the following dates associated with the lab: date specimen collected, date received by the laboratory, date reported or date inserted.*

For county-specific laboratory data, please refer to the Flu Lab Report in Merlin.

For instructions on how to use the Flu Lab Report, please see the Guide to Flu Lab Report on the Bureau of Epidemiology website:

County Influenza and ILI Activity

As of 11:30 a.m. March 25, 2015, a total of 67 (100%) counties reported their weekly level of influenza activity. Please note that data reported by counties after the deadline Tuesday at 5 p.m. are recorded but may not be included in the activity map for previous weeks.

TABLE 3: Weekly County Influenza Activity for Week 11 (ending March 21, 2015) as Reported by 11:30 a.m. March 25, 2015

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 11 Number of Counties</th>
<th>Week 10 Number of Counties</th>
<th>Week 11 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>No Activity</td>
<td>13</td>
<td>17</td>
<td>Columbia, Desoto, Franklin, Gilchrist, Glades, Hamilton, Indian River, Madison, Manatee, Nassau, Sumter, Union, Washington</td>
</tr>
<tr>
<td>Moderate</td>
<td>4</td>
<td>2</td>
<td>Hardee, Leon, Orange, St. Lucie</td>
</tr>
<tr>
<td>Widespread</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Map 4: Weekly County Influenza Activity Level for Week 11 Reported by 11:30 a.m. March 25, 2015

Map 5: Weekly County Influenza Activity Trend for Week 11 Reported by 11:30 a.m. March 25, 2015

Four counties reported moderate activity in week 11.

Three counties reported increasing influenza and ILI activity in week 11.

County influenza activity data are reported through EpiGateway on a weekly basis by each county influenza coordinator. Specific information is requested about laboratory results, outbreak reports, and surveillance system activity. Figures 17-26, displayed below, reflect a county’s assessment of influenza activity within their county as a whole as well as influenza activity within specific settings. For week 11, 36 counties indicated that activity was decreasing, 28 indicated activity was about the same as previous weeks, and three indicated that activity was increasing.

FIGURE 17 shows the assessment of the overall influenza activity trend in each county as reported by CHD influenza coordinators for week 11 as of 11:30 a.m. March 25, 2015.
Counties are asked to evaluate influenza activity in certain facilities within their county. Each facility has a scale for activity that ranges from no or minimal activity to very high activity. What defines each of the values varies by facility type, but the example of the assessment in elementary, middle, and high schools is included below.

- **No or very minimal activity** -- Scattered cases of ILI with no increase in absenteeism or disruption of school activities.
- **Moderate activity** -- Absenteeism elevated above baseline (in range of 10 to 25%) in some but fewer than half of schools where it is known; occasional children sent home because of ILI.
- **High activity** -- Absenteeism elevated above baseline (in range of 10 to 25%) in more than half of schools; most schools sending several or many children home each day because of ILI.
- **Very high activity** -- Absenteeism high enough to force curtailment of some or all school activities.

**FIGURE 18 - FIGURE 21** show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 11 as of 11:30 a.m., March 25, 2015.
**FIGURE 22 - FIGURE 26** show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 11 as of 11:30 a.m., March 25, 2015.

No influenza-associated pediatric deaths were reported in week 11.
Three influenza-associated pediatric deaths have been reported so far in the 2014-15 influenza season.
For week 10:
- 234 preliminary estimated P&I deaths were reported.
- Upper bound of 95% confidence interval for prediction is 257 deaths.
- No excess deaths.
- Flu deaths commonly reach higher levels later in the season since mortality tends to lag behind other indicators.

As of week 11:
- 5,891 P&I deaths have been reported in the 2014-15 influenza season.
- The number of P&I deaths is above levels seen in previous years at this time.

The number of P&I deaths reported in recent weeks has been elevated in adults ≥75 years old and is similar in all other age groups to levels seen in previous years at this time.

**Seasons were influenza A (H3) is the predominantly circulating strain are associated with higher mortality and morbidity, particularly in adults ≥65 years old.**

*Death records data reported into ESSENCE-FL are currently considered to be complete through week 10, 2015.*
In week 11, 2015, two outbreaks of influenza were reported in EpiCom.

**Polk County**
- An assisted living facility reported eight residents with ILI. Three ill residents were hospitalized and specimens from all three hospitalized residents were collected and tested positive for influenza B by PCR at BPHL. Prophylaxis was recommended. The 2014-15 influenza vaccination rate was 75% among ill residents. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

**St. Lucie County**
- A nursing facility reported 15 residents and 12 staff with ILI. Four specimens were collected and all four tested positive for influenza A by rapid antigen test at local health care providers. The 2014-15 influenza vaccination rate was 70% among residents. Prophylaxis was recommended to all residents in affected areas. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

As of week 11: **102 outbreaks** of influenza or ILI have been reported in EpiCom so far in the 2014-2015 season.
Florida ILI Surveillance System Summary

Florida ILINet
Measures trends in ILI visits to outpatient doctor’s offices
Network of volunteer healthcare providers who:
Report ILI and total visit counts every week
Submit specimens for confirmatory testing

ESSENCE-FL Syndromic Surveillance
Measures trends in ILI visits and hospital admissions from emergency departments and urgent care clinics
EDs and UCCs electronically transmit visit data into ESSENCE-FL daily
Visit data summarized in the Florida Flu Review include:
Percent of ED/urgent care visits due to ILI
Percent of ED/urgent care visitors with ILI who are admitted to the hospital

ESSENCE-FL Vital Statistics Portal
Measures influenza mortality by using death certificates with pneumonia or influenza listed as a cause of death.
Death certificate data from the Bureau of Vital Statistics can be accessed through ESSENCE-FL and are used for pneumonia and influenza mortality surveillance

County Influenza Activity in EpiGateway
Uses data provided by CHDs to create a county-by-county breakdown of influenza and ILI activity around the state
CHD epidemiologists report their county's influenza and ILI surveillance data weekly into the EpiGateway website
Influenza activity is classified as: No Activity, Mild, Moderate or Widespread
Setting-specific influenza activity and influenza trend is also reported

Outbreak Reporting in EpiCom
Tracks influenza and ILI outbreak investigations by CHDs and shows what types of influenza are responsible for outbreaks and where outbreaks are occurring
CHD epidemiologists report outbreaks of influenza or ILI into EpiCom, Florida’s online disease communication system
Outbreaks are defined as two or more cases of influenza or ILI in a specific setting

BPHL
BPHL performs confirmatory testing and subtyping on surveillance specimens from ILINet sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations and medical examiners

Case-Based Influenza Surveillance
Pediatric Influenza-Associated Mortality
Deaths in children with laboratory-confirmed influenza infection are reportable in Florida

Influenza due to Novel or Pandemic Strains
Patients with influenza infection due to novel or pandemic strains are reportable in Florida

National Respiratory and Enteric Virus Surveillance System (NREVSS)
Measures trends in different viruses that cause respiratory disease
Network of laboratories who report counts of test results for common respiratory viruses, including influenza, RSV, rhinovirus and others

Information on locating influenza vaccination can be found using the flu vaccine locator at: http://flushot.healthmap.org/