Summary
The Florida Department of Health (DOH) uses many different surveillance systems to measure influenza activity. A summary of all these systems can be found on page 11.

National influenza activity:
- Influenza activity continues to increase nationally.
- The Centers for Disease Control and Prevention recommend vaccination as long as influenza viruses are circulating.

State Influenza and influenza-like illness (ILI) activity:
- Due to increased influenza activity in some regions of the state, Florida reported regional influenza activity to CDC in week 47.
  - This activity level represents the geographic spread of influenza in Florida.
- Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits are increased at this time and suggest an earlier start flu season this year. The increase in visits is particularly noticeable among children less than 19.
- In Florida, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) in recent weeks has been influenza A (H3): In week 47, 34 of 49 (70.6%) specimens submitted for influenza testing at BPHL were PCR positive for influenza. 24 were positive for influenza A (H3) 6 were positive for A not yet subtyped 3 were positive for influenza B not yet subtyped and 1 was positive for influenza B Yamagata lineage. These are seasonal strains of influenza that are also circulating at the national level.
- Three outbreaks of influenza (epidemiologically-linked cases of influenza in a single setting) were reported to EpiCom in week 47.
- Most Florida counties report increasing influenza activity. In week 47, 37 counties reported increasing influenza activity; 27 counties indicated activity is at a plateau.
- Two pediatric influenza-associated deaths were reported in week 47.
  - These are the first reported influenza-associated pediatric deaths of the 2014-15 influenza season.
- The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 46 was below the excess threshold.
ILINet is a nationwide surveillance system composed of sentinel providers. Florida has 107 providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the BPHL for confirmatory testing. For this season, the Bureau of Epidemiology (BOE) has designated 13 of these ILINet physicians’ offices as Super-Sentinels. These Super-Sentinels receive more active follow-up from BOE and participating county health departments (CHDs), with the goal of increasing data quality and surveillance specimen submission.

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

The percent of visits to ILINet sentinel outpatient physicians for ILI is above levels seen at this time in previous years
- Fifty-four of 107 ILINet providers reported visit counts as of 5:00 p.m., November 25, 2014.
- Eight of 13 ILINet Super-Sentinels reported visit counts as of 5:00 p.m., November 25, 2014.

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

In week 47, the number of visits to ILINet sentinels for ILI increased in all age groups.

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**TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 47**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 46</th>
<th>Previous Week 45</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>▲ 0.7</td>
<td>2.5%</td>
<td>1.8%</td>
<td>2</td>
</tr>
<tr>
<td>Percent of ED and UCC visits (from ESSENCE-FL) due to ILI</td>
<td>▲ 0.2</td>
<td>3.7%</td>
<td>3.5%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▲ 21.7</td>
<td>69.4%</td>
<td>47.7%</td>
<td>5</td>
</tr>
<tr>
<td>Number of counties reporting moderate influenza activity</td>
<td>▲ 8</td>
<td>19</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting widespread influenza activity</td>
<td>▼ 1</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting increasing influenza activity</td>
<td>▼ 2</td>
<td>37</td>
<td>39</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting decreasing influenza activity</td>
<td>▼ 1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Number of ILI outbreaks reported in EpiCom</td>
<td>▲ 2</td>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

†Data presented here are counts, not proportions as included in Figure 1. This is because age group denominator data is not available through ILINet.

*ILI = Influenza-like illness, fever >100°F AND sore throat and/or cough in the absence of another known cause.
ESSENCE-FL collects data daily from 216 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.

**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 above levels seen in previous years at this time.

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

The percent of ED and UCC visits for ILI is above levels seen in previous years at this time for all age groups.

ESSENCE-FL Syndromic Surveillance-Statewide

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), November 26, 2014 (N=216)
The figures (5-11) describe Emergency Department (ED) and Urgent Care Center (UCC) chief complaint data from ESSENCE-FL by Regional Domestic Security Task Force (RDSTF) regions.

- ED and UCC visits for ILI in RDSTF Region 2-4, 6 and 7 are above levels seen during previous years at this time.
- ED and UCC visits for ILI in RDSTF Regions 1, and 5 are at or near 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.
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.

Influenza A (H3) has been the most common strain of influenza detected by BPHL so far in the 2014-2015 influenza season.

Figure 12 and Figure 13 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: Bureau of Public Health Laboratories (BPHL) Viral Surveillance for Week 47 by Lab Event Date* as reported by 4:00 p.m. November 26, 2014

<table>
<thead>
<tr>
<th></th>
<th>Current Week 47</th>
<th>Previous Week 46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Specimens Tested</td>
<td>49</td>
<td>65</td>
</tr>
<tr>
<td>Influenza positive specimens (% of total)</td>
<td>34 (69.4%)</td>
<td>31 (47.7%)</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>24 (70.6%)</td>
<td>28 (90.3%)</td>
</tr>
<tr>
<td>Influenza A not yet subtyped (% of influenza positives)</td>
<td>6 (17.7%)</td>
<td>2 (6.5%)</td>
</tr>
<tr>
<td>Influenza B Yamagata (% of influenza positives)</td>
<td>1 (2.9%)</td>
<td>1 (3.2%)</td>
</tr>
<tr>
<td>Influenza B Victoria (% of influenza positives)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Influenza B not yet subtyped (% of influenza positives)</td>
<td>6 (8.8%)</td>
<td>-</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:
As of 11:30 a.m. November 26, 2014, 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 47 (ending November 22, 2014) as Reported by 11:30 a.m. November 26, 2014

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 47 Number of Counties</th>
<th>Week 46 Number of Counties</th>
<th>Week 47 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>9</td>
<td>11</td>
<td>Desoto, Dixie, Gilchrist, Hamilton, Jefferson, Okeechobee, Santa Rosa, Taylor, Union</td>
</tr>
<tr>
<td>Moderate</td>
<td>19</td>
<td>11</td>
<td>Alachua, Baker, Columbia, Franklin, Glades, Gulf, Hardee, Hendry, Hillsborough, Holmes, Leon, Marion, Orange, Pasco, Polk, Putnam, Suwannee, Wakulla, Walton</td>
</tr>
<tr>
<td>Widespread</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Nineteen counties reported moderate activity.

Figure 14 shows the assessment of the overall influenza activity trend in each county as reported by CHD influenza coordinators for week 47 as of 11:30 a.m. November 26, 2014.

County influenza activity data are reported to BOE 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 14-23, 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 47, two counties indicated that activity was decreasing, 27 indicated activity was about the same as previous weeks and 37 indicated that activity was increasing.
Counties are asked to evaluate influenza activity in certain settings within their county. Each setting has a scale for activity that ranges from none 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. More detailed information on the meanings of the levels for each setting can be found on the webpage also 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 15 - FIGURE 18** show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 47 as of 11:30 a.m., November 26, 2014.
FIGURE 19 - FIGURE 23 show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 47 as of 11:30 a.m., November 26, 2014.

Pediatric Influenza-Associated Mortality

Two influenza-associated pediatric deaths were reported in week 47 of the 2014-2015 influenza season, one in an Orange county resident and one in a Pasco county resident. Both had underlying health conditions.

These are the first reported influenza-associated pediatric deaths of the 2014-15 influenza season.
FIGURE 24 shows the count of preliminary estimated pneumonia and influenza deaths for all Florida counties, the number of deaths predicted using a multi-year regression model and the upper bound of the 95% confidence interval for this prediction.

For week 46 (ending Nov 15, 2014):
- 177 preliminary estimated pneumonia and influenza deaths were reported.
- Upper bound of 95% confidence interval for prediction: 219 deaths.
- No excess deaths.

FIGURE 25 shows pneumonia and influenza deaths for all Florida counties, week 40, 2010 - week 47 2014, as reported into ESSENCE-FL. Deaths due to pneumonia and influenza are at or near levels seen during previous years at this time.

FIGURE 26 shows pneumonia and influenza deaths for all Florida counties by age group, week 40, 2012 - week 47, 2014, as reported into ESSENCE-FL.

Death records data reported into ESSENCE-FL are currently considered to be complete through week 46, 2014.
The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratories around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of six common respiratory viruses. Eight Florida facilities reported in week 47.

**FIGURE 27** shows the percentage of positive tests for multiple respiratory viruses reported by NREVSS-participating laboratories in Florida.

The 6 respiratory viruses summarized in Figure 27 are:
- Respiratory Syncytial Virus (RSV)
- Parainfluenza 1-3
- Adenovirus
- Human Metapneumovirus (HMPV)
- Rhinovirus
- Influenza

**Influenza and ILI Outbreaks Reported in EpiCom**

In week 47, 2014, three outbreaks of influenza or ILI were reported in to EpiCom.

Pinellas County: A nursing home reported 14 residents ill with ILI. Specimens were collected and sent to BPHL for further characterization. Infection control measures were discussed with facility leadership. This investigation is ongoing.

Orange County: A daycare reported 12 attendees and four staff ill with ILI. Of the 12 ill, only nine had accessible vaccination information. Of the nine, only one child was vaccinated against influenza this season. One of the ill children tested positive for influenza B by rapid antigen test at their healthcare provider’s office. Only one of the ill staff had received this year’s influenza vaccine. Infection control measures were discussed with facility leadership. This investigation is ongoing.

Miami-Dade: an elementary school reported 12 students with ILI. None of the six students for whom vaccination information was available had received this year’s influenza vaccine. Of the 12, four students tested positive for influenza A by rapid antigen test at their local health care providers offices. Infection control measures were discussed with facility leadership. This investigation is ongoing.

Thirteen influenza outbreaks have been reported into EpiCom so far in the 2013-2014 season.

**Map 6:** Influenza and ILI outbreaks by county, Week 47, 2014 as Reported by 11:30 a.m., November 26, 2014
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**
  - Deaths due to influenza 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/](http://flushot.healthmap.org/)