**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.

**Enterovirus D68 (EV-D68) activity:**
- EV-D68 is one of more than 100 non-polio enteroviruses. This virus was first identified in California in 1962. The U.S. is currently experiencing a nationwide outbreak of EV-D68 associated with severe respiratory illness.
- EV-D68 has been identified in Florida residents. For more information, please visit: http://www.floridahealth.gov/diseases-and-conditions/d68/.

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

**State Influenza and influenza-like illness (ILI) activity:**
- Most Florida counties are reporting mild influenza activity. In week 44, 22 counties reported increasing influenza activity; 39 counties indicated activity is at a plateau.
- Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits have remained low but are increasing in all regions, which is typical for this time of year.
- 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 44, 33 of 58 (56.9%) specimens submitted for influenza testing at BPHL were PCR positive for influenza. Seventeen were positive for influenza A (H3), nine were positive for A unspecified, four were positive for influenza B unspecified, and three were positive for influenza B Victoria lineage. These are seasonal strains of influenza.
  - No outbreaks of influenza or influenza-like illness (epidemiologically-linked cases of influenza in a single setting) were reported to EpiCom in week 44.
  - No pediatric influenza-associated deaths were reported in week 44.
- The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 43 was below the excess threshold.
- Because of increasing influenza activity in some regions of the state, Florida reported regional influenza activity to CDC in week 44. This activity level represents the geographic spread of influenza in Florida.

**Weekly state influenza activity:**

**Regional influenza activity:**
- Predominantly circulating influenza strain this season: A (H3)

**Map 1: County Influenza Activity Week 44, 2014**

No Report
No Activity
Mild
Moderate
Widespread

Forty-four counties reported mild influenza activity. For more information, see page 6.

**Map 2: Influenza and ILI Outbreaks Week 44, 2014**

0 Outbreaks
1-2 Outbreaks
3-4 Outbreaks
5+ Outbreaks
Week 44 Outbreaks

Nine outbreaks of ILI or influenza have been reported since Week 40, 2014. For more information, see page 10.

**In this Issue:**

Summary
ILINet ILI-Statewide
ESSENCE-FL Syndromic Surveillance
Summary-Statewide
ESSENCE-FL Syndromic Surveillance
Summary-Regional
Bureau of Public Health Laboratories Viral Surveillance
County Influenza and ILI Activity
Pediatric Influenza-Associated Mortality
ESSENCE-FL Pneumonia and Influenza Mortality
NREVSS Respiratory Virus Surveillance
Influenza and ILI Outbreaks Reported in EpiCom
Florida ILI Surveillance System Summary

November 5, 2014
Posted on the Bureau of Epidemiology website: [http://www.floridahealth.gov/floridaflu]
Produced by: Bureau of Epidemiology, Florida Department of Health
Contributors: Heather Rubino, PhD; Ellen Dugan, MPH, Leah Eisenstein, MPH; Lea Heberlein-Larson, MPH; Valerie Mock; Janet Hamilton, MPH
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 4, 2014.
- Eight of 13 ILINet Super-Sentinels reported visit counts as of 5:00 p.m., November 4, 2014.

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

In week 44, the number of visits to ILINet sentinels for ILI decreased in the 0-4, 25-64 and 65+ age groups. The number of visits in the 05-24 age groups increased in week 44.

### TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 44

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 44</th>
<th>Previous Week 43</th>
<th>Page of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall statewide activity code reported to CDC</td>
<td>▲ 1</td>
<td>Regional</td>
<td>Local</td>
<td>1</td>
</tr>
<tr>
<td>Percent of visits to ILINet providers for ILI</td>
<td>▼ 0.1</td>
<td>2.0%</td>
<td>2.1%</td>
<td>2</td>
</tr>
<tr>
<td>Percent of ED and UCC visits (from ESSENCE-FL) due to ILI</td>
<td>▲ 0.1</td>
<td>3.1%</td>
<td>3.0%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▲ 17.9</td>
<td>56.9%</td>
<td>39.0%</td>
<td>5</td>
</tr>
<tr>
<td>Number of counties reporting moderate influenza activity</td>
<td>No Change</td>
<td>3</td>
<td>3</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>No Change</td>
<td>22</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting decreasing influenza activity</td>
<td>▲ 1</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Number of ILI outbreaks reported in EpiCom</td>
<td>▼ 1</td>
<td>0</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

**ILINet Influenza-Like Illness-Statewide**

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.

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 Syndromic Surveillance-Statewide

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.

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 5, 2014 (N=216)
FIGURE 5 - FIGURE 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 2-5 and 7 are above levels seen during previous years at this time.
- ED and UCC visits for ILI in RDSTF Regions 1 and 6 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.
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) and influenza B Yamagata lineage.

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

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

FIGURE 12 - 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 44 by Lab Event Date* as reported by 10:00 a.m. November 5, 2014

<table>
<thead>
<tr>
<th></th>
<th>Current Week 44</th>
<th>Previous Week 43</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Specimens Tested</strong></td>
<td>58</td>
<td>59</td>
</tr>
<tr>
<td>Influenza positive specimens (% of total)</td>
<td>33 (56.9%)</td>
<td>23 (39.0%)</td>
</tr>
<tr>
<td>Influenza A (2009 H1N1) (% of influenza positives)</td>
<td>-</td>
<td>1 (4.4%)</td>
</tr>
<tr>
<td>Influenza A (H3) (% of influenza positives)</td>
<td>17 (51.5%)</td>
<td>17 (73.8%)</td>
</tr>
<tr>
<td>Influenza A not yet subtyped (% of influenza positives)</td>
<td>9 (27.3%)</td>
<td>3 (13.0%)</td>
</tr>
<tr>
<td>Influenza B Yamagata (% of influenza positives)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Influenza B Victoria (% of influenza positives)</td>
<td>3 (9.1%)</td>
<td>1 (4.4%)</td>
</tr>
<tr>
<td>Influenza B unspecified (% of influenza positives)</td>
<td>4 (12.1%)</td>
<td>1 (4.4%)</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:
Map 4: Weekly County Influenza Activity Level for Week 44 Reported by 11:30 a.m. November 5, 2014

As of 11:30 a.m. November 5, 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 44 (ending November 1, 2014) as Reported by 11:30 a.m. November 5, 2014

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 44 Number of Counties</th>
<th>Week 43 Number of Counties</th>
<th>Week 44 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>44</td>
<td>43</td>
<td>Alachua, Baker, Bay, Brevard, Broward, Charlotte, Citrus, Clay, Collier, Dade, Dixie, Duval, Escambia, Flagler, Gadsden, Gulf, Hardee, Hendry, Highlands, Hillsborough, Indian River, Lake, Lee, Leon, Manatee, Marion, Martin, Nassau, Okaloosa, Okeechobee, Osceola, Palm Beach, Pasco, Pinellas, Polk, Putnam, Sarasota, Seminole, St. Johns, St. Lucie, Sumter, Suwannee, Volusia, Washington</td>
</tr>
<tr>
<td>Moderate</td>
<td>7</td>
<td>3</td>
<td>Bradford, Gilchrist, Glades, Holmes, Orange, Union, Wakulla</td>
</tr>
<tr>
<td>Widespread</td>
<td>-</td>
<td>1</td>
<td>Bradford, Gilchrist, Glades, Holmes, Orange, Union, Wakulla</td>
</tr>
</tbody>
</table>

Map 4: Weekly County Influenza Activity Level for Week 44 Reported by 11:30 a.m. November 5, 2014

Map 5: Weekly County Influenza Activity Trend for Week 44 Reported by 11:30 a.m. November 5, 2014

Seven counties reported moderate activity.

Twenty-two counties reported increasing influenza and ILI activity.

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 44, four counties indicated that activity was decreasing, 39 indicated activity was about the same as previous weeks and 22 indicated that activity was increasing.

**FIGURE 14** shows the assessment of the overall influenza activity trend in each county as reported by CHD influenza coordinators for week 44 as of 11:30 a.m. November 5, 2014.
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 44 as of 11:30 a.m., November 5, 2014.

---

**FIGURE 15: Assessment of Influenza Activity in Elementary, Middle, and High Schools**

- **Very High**
- **High**
- **Moderate**
- **None or Minimal**
- **Not Applicable**
- **No answer**

Number of Counties:
- Very High: 5
- High: 1
- Moderate: 55
- None or Minimal: 1
- Not Applicable: 6
- No answer: 1

**FIGURE 16: Assessment of Influenza Activity in Colleges and Universities**

- **Very High**
- **High**
- **Moderate**
- **None or Minimal**
- **Not Applicable**
- **No answer**

Number of Counties:
- Very High: 37
- High: 2
- Moderate: 8
- None or Minimal: 37
- Not Applicable: 1
- No answer: 2

**FIGURE 17: Assessment of Influenza Activity in Jails/Prisons**

- **Very High**
- **High**
- **Moderate**
- **None or Minimal**
- **Not Applicable**
- **No answer**

Number of Counties:
- Very High: 56
- High: 4
- Moderate: 45
- None or Minimal: 7
- Not Applicable: 13
- No answer: 9

**FIGURE 18: Assessment of Influenza Activity in Retirement Facilities**
FIGURE 19 - FIGURE 23 show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 44 as of 11:30 a.m., November 5, 2014.

Pediatric Influenza-Associated Mortality

No influenza-associated pediatric deaths were reported in week 44, or in the 2014-2015 influenza season.
FDOH Bureau of Vital Statistics and county health departments (CHDs) collect death record data electronically in all 67 Florida counties, which can be accessed using ESSENCE-FL. For pneumonia and influenza surveillance, death record literals are queried in ESSENCE-FL using a free-text query that searches for references to pneumonia and influenza on death certificates. Any mention of pneumonia or influenza in the death certificate literals, with certain exceptions, is counted as a pneumonia and influenza death. Current season pneumonia and influenza death numbers are preliminary estimates, and may change as more data are received. The most recent data available are displayed here. ESSENCE-FL vital statistics death records data are currently considered to be complete through week 43, 2014.

**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 43 (ending Oct 25, 2014):
- 156 preliminary estimated pneumonia and influenza deaths were reported.
- Upper bound of 95% confidence interval for prediction: 195 deaths.
- No excess deaths.

**FIGURE 25** shows pneumonia and influenza deaths for all Florida counties, week 40, 2010 - week 44 2014, as reported into ESSENCE-FL. Deaths due to pneumonia and influenza are at 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 44, 2014, as reported into ESSENCE-FL. Death records data reported into ESSENCE-FL are currently considered to be complete through week 43, 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 44.

**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 44, 2014, no outbreaks of influenza or ILI were reported into EpiCom.

Nine influenza outbreaks have been reported into EpiCom so far in the 2013-2014 season.
Influenza and ILI Outbreaks (Continued)

**TABLE 4 : Summary of Florida Influenza and ILI Outbreaks by Facility Status, Week 40-44, 2014**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number of outbreaks</th>
<th>Implicated Viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>5</td>
<td>• One outbreak, due to influenza A unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Three outbreaks, virus information not yet available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to influenza A unspecified</td>
</tr>
<tr>
<td>Colleges and universities</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Daycares</td>
<td>2</td>
<td>• One outbreak, due to parainfluenza III</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to RSV</td>
</tr>
<tr>
<td>Private businesses</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Local and state government offices</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Jails and prisons</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Retirement homes</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>2</td>
<td>• One outbreak, due to influenza A (H3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to influenza A unspecified</td>
</tr>
<tr>
<td>Healthcare facilities</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>• No outbreaks</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td>• One outbreak, due to influenza A unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Three outbreaks, virus information not yet available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Two outbreaks, due to influenza A unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to parainfluenza III</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to RSV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak, due to influenza A (H3)</td>
</tr>
</tbody>
</table>

**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/](http://flushot.healthmap.org/)