Week 41: October 6 - 12, 2013

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

Novel influenza:
- Eighteen confirmed cases of influenza A H3N2v infection have been reported since June, 2013. Michigan reported the two most recent cases. Since being first identified in the United States, the Centers for Disease Control and Prevention (CDC) has reported 327 cases and one fatality. **No cases of H3N2v infection have been reported in Florida.** The H3N2v strain originates from influenza that circulates in pigs. Nearly all people infected with H3N2v have reported direct or indirect contact with swine. No sustained human to human transmission has been identified. More information can be found at: [http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm](http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm).

State:
- Most Florida counties reported mild or no influenza activity. Twenty-four counties reported increasing influenza activity.
- Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits have increased overall in recent weeks. Although in EDs and UCCs reporting to ESSENCE-FL, the statewide percent of ED visits for ILI is at or near typical levels for this time of year in all regions of Florida.
- 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 41, 19 of 28 specimens submitted for influenza testing at BPHL tested PCR positive for influenza A (2009 H1N1) and one tested positive for influenza B unspecified. In the 2012-2013 influenza season, influenza B, influenza A (H3) and influenza A (2009 H1N1) were all detected. All of these are seasonal strains of influenza.
  - Nationally (including Florida), almost all circulating influenza is a good match for the vaccine.
- No influenza or ILI outbreaks (epidemiologically linked cases of influenza in a single setting) were reported in week 41.
- No pediatric influenza-associated deaths were reported in week 41. No pediatric influenza-associated deaths have been reported in the 2013-2014 season.
- The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 40 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 low influenza activity in most regions of the state, Florida reported sporadic influenza activity to CDC in week 41. This activity level represents the geographic spread of influenza in Florida.

**Weekly state influenza activity:**
- **Sporadic**

**Predominantly circulating influenza strain in Florida:**
- **A (2009 H1N1)**

**In this Issue:**
- Summary
- Outpatient Influenza-Like Illness
- Surveillance Network (ILINET)-Statewide
- ESSENCE-FL Syndromic Surveillance-Weekly
- ESSENCE-FL Syndromic Surveillance-Weekly-Regional
- Florida Bureau of Public Health Laboratories Viral Surveillance
- County Influenza and ILI Activity
- Pediatric Influenza-Associated Mortality
- ESSENCE-FL Pneumonia and Influenza Mortality Data
- NREVSS Respiratory Virus Surveillance
- Influenza and ILI Outbreaks Reported in EpiCom
- Florida ILI Surveillance System

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

**Novel influenza:**
- Eighteen confirmed cases of influenza A H3N2v infection have been reported since June, 2013. Michigan reported the two most recent cases. Since being first identified in the United States, the Centers for Disease Control and Prevention (CDC) has reported 327 cases and one fatality. **No cases of H3N2v infection have been reported in Florida.** The H3N2v strain originates from influenza that circulates in pigs. Nearly all people infected with H3N2v have reported direct or indirect contact with swine. No sustained human to human transmission has been identified. More information can be found at: [http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm](http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm).

**State:**
- Most Florida counties reported mild or no influenza activity. Twenty-four counties reported increasing influenza activity.
- Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits have increased overall in recent weeks. Although in EDs and UCCs reporting to ESSENCE-FL, the statewide percent of ED visits for ILI is at or near typical levels for this time of year in all regions of Florida.
- 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 41, 19 of 28 specimens submitted for influenza testing at BPHL tested PCR positive for influenza A (2009 H1N1) and one tested positive for influenza B unspecified. In the 2012-2013 influenza season, influenza B, influenza A (H3) and influenza A (2009 H1N1) were all detected. All of these are seasonal strains of influenza.
  - Nationally (including Florida), almost all circulating influenza is a good match for the vaccine.
- No influenza or ILI outbreaks (epidemiologically linked cases of influenza in a single setting) were reported in week 41.
- No pediatric influenza-associated deaths were reported in week 41. No pediatric influenza-associated deaths have been reported in the 2013-2014 season.
- The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 40 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 low influenza activity in most regions of the state, Florida reported sporadic influenza activity to CDC in week 41. This activity level represents the geographic spread of influenza in Florida.

**Map 1: County Influenza Activity**
- Week 41, 2013

- No Report
- No Activity
- Mild
- Moderate
- Widespread

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

**Map 2: Influenza and ILI Outbreaks**
- Week 41, 2013

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

One outbreak of influenza or ILI has been reported since Week 40, 2013. For more information, see page 11.
Descriptions of Florida influenza and ILI surveillance systems can be found on page 11.

**TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 41**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 41</th>
<th>Previous Week 40</th>
<th>Page of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall statewide activity code reported to CDC</td>
<td>-</td>
<td>Sporadic</td>
<td>Sporadic</td>
<td>1</td>
</tr>
<tr>
<td>Percent of visits to ILNet providers for ILI</td>
<td>▼ 0.2</td>
<td>1.3%</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>▲ 0.2</td>
<td>2.3%</td>
<td>2.1%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▼ 6.4</td>
<td>67.9%</td>
<td>61.5%</td>
<td>5</td>
</tr>
<tr>
<td>Number of counties reporting moderate influenza activity</td>
<td>▲ 2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting widespread influenza activity</td>
<td>No Change</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Number of counties reporting increasing influenza activity</td>
<td>▲ 2</td>
<td>24</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Number of counties reporting decreasing influenza activity</td>
<td>▲ 2</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Number of ILI outbreaks reported in EpiCom</td>
<td>▼ 1</td>
<td>0</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

**ILINet Influenza-Like Illness-Statewide**

ILINet is a nationwide surveillance system composed of sentinel providers. Florida has 110 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 (DCBE) has designated 12 of these ILINet physicians’ offices as Super-Sentinels. These Super-Sentinels receive more active follow-up from DCBE and participating county health departments (CHDs), with the goal of increasing data quality and surveillance specimen submission.

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

**FIGURE 1** shows the percentage of visits for ILI* reported by ILINet sentinel providers statewide. The percent of visits to ILINet sentinels outpatient physicians for ILI has increased.

54 of 101 ILINet sentinels reported visit counts as of 5:00 p.m., October 15, 2013.

10 of 12 ILINet Super-Sentinels reported visit counts as of 5:00 p.m., October 15, 2013.

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

In week 41, the number of visits to ILINet sentinels for ILI increased in the all age groups, most notably in the 5-24 age group.

†Data presented here are counts, not proportions as included in Figure 2. This is because age group denominator data is not available through ILINet.
ESSENCE-FL Syndromic Surveillance Summary-Statewide

ESSENCE-FL collects data daily from 183 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 continues to rise, and is near expected levels for this time of year.

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

In the current week, the percent of visits to emergency departments and urgent care centers for ILI is similar to previous years at this time for the 20-54 and 54+ age groups. ILI visits for the 0-19 age group are higher than previous years at this time.

### ESSENCE-FL Syndromic Surveillance Summary-Regional

Map 3: Emergency Departments and Urgent Care Centers Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force (RDSTF), October 16, 2013 (N=183)

Map 4: Emergency Departments and Urgent Care Centers Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force (RDSTF) ILI Activity Trends, Week 41, 2013
The percent of ED and UCC visits for ILI is near expected levels in all regions of Florida.

All RDSTF Regions report increasing visits for ILI to EDs and UCCs in week 41, 2013.

Regions 4, 6 and 7 are seeing higher numbers of visits for ILI to EDs and UCCs than in previous seasons 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.
Recent influenza specimens submitted to BPHL tested positive for influenza A 2009 H1N1.
In recent weeks, influenza A (2009 H1N1) has been the most common strain detected by BPHL. Specimen submissions have increased as ILI visits and other influenza indicators have begun climbing.

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

**Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance for Week 41 by Lab Event Date* as reported by 12:00 p.m. October 16, 2013**

<table>
<thead>
<tr>
<th></th>
<th>Current Week 41</th>
<th>Previous Week 40</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Specimens Tested</strong></td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>Influenza positive specimens (% of total)</td>
<td>19 (67.9%)</td>
<td>32 (61.5%)</td>
</tr>
<tr>
<td>Influenza A (2009 H1N1) (% of influenza positives)</td>
<td>18 (94.7%)</td>
<td>31 (96.8%)</td>
</tr>
<tr>
<td>Influenza A (H3) (% of influenza positives)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Influenza A not yet subtyped (% of influenza positives)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Influenza B unspecified (% of influenza positives)</td>
<td>1 (5.3%)</td>
<td>1 (3.2%)</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.
County Influenza Activity

As of 12:00 p.m. October 16, 2013 a total of 67 (100%) counties had 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 40 (ending October 12, 2013) as Reported by 12:00 p.m. October 16, 2013

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 41 Number of Counties</th>
<th>Week 40 Number of Counties</th>
<th>Week 41 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mild</td>
<td>40</td>
<td>36</td>
<td>Alachua, Brevard, Broward, Calhoun, Citrus, Clay, Collier, Dade, Desoto, Duval, Escambia, Flagler, Franklin, Gadsden, Gulf, Hernando, Highlands, Hillsborough, Indian River, Jefferson, Lafayette, Lake, Lee, Leon, Manatee, Marion, Martin, Monroe, Okeechobee, Osceola, Palm Beach, Pasco, Pinellas, Polk, Santa Rosa, Sarasota, Seminole, St. Lucie, Volusia, Wakulla</td>
</tr>
<tr>
<td>Moderate</td>
<td>6</td>
<td>3</td>
<td>Charlotte, Hardee, Holmes, Okaloosa, Orange, Washington</td>
</tr>
<tr>
<td>Widespread</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Map 5: Weekly County Influenza Activity Level for Week 41 as Reported by 12:00 p.m. October 16, 2013

Map 6: Weekly County Influenza Activity Trend for Week 41 as Reported by 1:00 p.m. October 16, 2013

Six counties report moderate activity.

County influenza activity data is reported to the Division of Disease Control Bureau of Epidemiology (DCBE) through EpiGateway on a weekly basis by the 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 41, two counties indicated that activity was decreasing, 34 indicated activity was about the same as previous weeks and 24 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 41 as of 12:00 p.m. October 16, 2013.

Definitions for the County Influenza Activity Trends are available at: http://www.doh.state.fl.us/disease_ctrl/epi/CountyInfluenzaTrendGuide.html
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.

County influenza settings assessment guides are available at: [http://www.doh.state.fl.us/disease_ctrl/epi/FluAssessment.htm](http://www.doh.state.fl.us/disease_ctrl/epi/FluAssessment.htm)

**FIGURE 15 - FIGURE 18** show the activity levels in various facilities by county as reported by county health department flu coordinators for week 40 as of 1:00 p.m., October 9, 2013.
**FIGURE 19 - FIGURE 23** show the activity levels in various facilities by county as reported by county health department influenza coordinators for week 40 as of 1:00 p.m., October 9, 2013.

**Pediatric Influenza-Associated Mortality**

In week 41, 2013, no influenza-associated pediatric deaths were reported in Florida.
Over the past year, the FDOH Bureau of Vital Statistics and CHDs have been rolling out an electronic death record system for Florida. ESSENCE-FL now displays electronic vital statistics death record data from all 67 Florida counties. 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 record data are currently considered to be complete through week 40, 2013.

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 40 (ending October 5, 2013):
- 153 preliminary estimated pneumonia and influenza deaths reported
- Upper bound of 95% confidence interval for prediction: 179 deaths
- No excess deaths.

FIGURE 25 shows pneumonia and influenza deaths for all Florida counties, Week 40, 2010 - Week 42, 2013, as reported into ESSENCE-FL.

FIGURE 26 shows pneumonia and influenza deaths for all Florida counties by age group, Week 40, 2010 - Week 42, 2013, as reported into ESSENCE-FL.

Death records data reported into ESSENCE-FL are currently considered to be complete through week 40, 2013.
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. Nine Florida facilities reported in week 41.

**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

In week 41, 2013 there were no influenza or ILI outbreaks reported in EpiCom.

One outbreak of influenza or ILI has been reported so far in the 2013-2014 influenza season.

**Map 6: Influenza and ILI outbreaks by county, Week 40, 2012 - Week 41, 2013**

One influenza or ILI outbreak has been reported into EpiCom in the 2013-2014 season so far.
### Table 4: Summary of Florida ILI Outbreaks by Facility Status, Week 41, 2013

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number of outbreaks</th>
<th>Implicated Viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>0</td>
<td>No outbreaks</td>
</tr>
<tr>
<td>Colleges and universities</td>
<td>0</td>
<td>No outbreaks</td>
</tr>
<tr>
<td>Daycares</td>
<td>0</td>
<td>No outbreaks</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>1</td>
<td>One outbreak. Virus information not yet available.</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>0</td>
<td>No outbreaks</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>1</strong></td>
<td>One outbreak. Virus information not yet available.</td>
</tr>
</tbody>
</table>

**Florida Surveillance System Summary**

- **Florida ILINet**
  - Measures trends in ILI visits to outpatient doctor's offices
  - Doctors submit specimens from ill patients for influenza testing
    - 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
    - Emergency departments and urgent care clinics 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
    - Death certificates with pneumonia or influenza listed as a cause of death are used as a proxy to measure influenza mortality
      - Death certificate data from the Bureau of Vital Statistics can be accessed through ESSENCE-FL
      - Vital statistics data in ESSENCE 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
      - 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
      - Bureau of Public Health Laboratories Viral Surveillance (BPHL)
        - BPHL performs confirmatory testing and subtyping on surveillance specimens
        - Surveillance specimens come 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/)