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).
- For current information on novel or pandemic strains of influenza (including avian or swine origin influenza A) visit [http://www.doh.state.fl.us/Environment/medicine/arboviral/zoonoses/Zoonotic-avian.html](http://www.doh.state.fl.us/Environment/medicine/arboviral/zoonoses/Zoonotic-avian.html).

**State:**
- **Most Florida counties reported mild or no influenza activity.** Twenty-two counties reported increasing influenza activity.
- **Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits have increased overall in recent weeks.** In emergency departments and urgent care centers reporting to ESSENCE-FL, the statewide percent of emergency department 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 40, 25 of 40 specimens submitted for influenza testing at BPHL tested PCR positive for influenza A (2009 H1N1) and two tested positive for influenza A unspecified. 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.
- **One influenza or ILI outbreak (epidemiologically linked cases of influenza in a single setting) was reported in week 40.** No pediatric influenza-associated deaths were reported in week 40. 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 40. This activity level represents the geographic spread of influenza in Florida.

**Map 1: County Influenza Activity**

**Week 40, 2013**

Thirty-six counties reported mild influenza activity. For more information, see page 6.

**Map 2: Influenza and ILI Outbreaks**

**Week 40, 2013**

One outbreak of influenza or ILI has been reported since Week 40, 2013. For more information, see page 11.

**Weekly state influenza activity:**

Sporadic

- No Activity
- Sporadic
- Local
- Regional
- Widespread

Predominantly circulating influenza strain in Florida:

**A (2009 H1N1)**

- A (2009 H1N1)
- A (H3) Seasonal
- A (H1) Seasonal
- A (not yet subtyped)
- B

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11. Florida ILI Surveillance System Summary
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-Sentinel(s) receive more active follow-up from DCBE and participating county health departments (CHDs), with the goal of increasing data quality and surveillance specimen submission.

**TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 40**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 40</th>
<th>Previous Week 39</th>
<th>Page of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall statewide activity code reported to CDC</td>
<td>▲ 0.7</td>
<td>1.7%</td>
<td>1.0%</td>
<td>2</td>
</tr>
<tr>
<td>Percent of visits to ILINet providers for ILI</td>
<td>▲ 0.1</td>
<td>2.1%</td>
<td>2.0%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of ED and UCC visits (from ESSENCE-FL) due to ILI</td>
<td>▲ 2.4</td>
<td>67.5%</td>
<td>69.9%</td>
<td>5</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▼ 2.4</td>
<td>67.5%</td>
<td>69.9%</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>-</td>
<td>22</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Number of counties reporting decreasing influenza activity</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Number of ILI outbreaks reported in EpiCom</td>
<td>▲ 1</td>
<td>1</td>
<td>0</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-Sentinel(s). These Super-Sentinel(s) receive more active follow-up from DCBE 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 sentinels outpatient physicians for ILI has increased.

58 of 101 ILINet sentinel providers reported visit counts as of 5:00 p.m., October 8, 2013.

10 of 12 ILINet Super-Sentinel(s) reported visit counts as of 5:00 p.m., October 8, 2013.

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

In week 40, the number of visits to ILINet sentinels for ILI increased in the 0-4, 5-19 and 65+ age groups and was stable in the 25-65 year old age group.

*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 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 all age groups.

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), May 22, 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 40, 2013

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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.

The percent of ED and UCC visits for ILI is near expected levels in all regions of Florida.

Regions 1-5 and 7 report increasing visits for ILI to EDs and UCCs in week 40, 2013.

Region 6 reports declining visits for ILI to EDs and UCCs in week 40, 2013.

Regions 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.
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.

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.

Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance for Week 40 by Lab Event Date* as reported by 12:00 p.m. October 9, 2013

<table>
<thead>
<tr>
<th></th>
<th>Current Week 40</th>
<th>Previous Week 39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Specimens Tested</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>Influenza positive specimens (% of total)</td>
<td>27 (67.5%)</td>
<td>16 (69.6%)</td>
</tr>
<tr>
<td>Influenza A (2009 H1N1) (% of influenza positives)</td>
<td>25 (92.6%)</td>
<td>15 (93.8%)</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>2 (7.4 %)</td>
<td>1 (6.2 %)</td>
</tr>
<tr>
<td>Influenza B unspecified (% of influenza positives)</td>
<td>-</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.

As of 1:00 p.m. October 9, 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 5, 2013) as Reported by 1:00 p.m. October 9, 2013

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 40 Number of Counties</th>
<th>Week 39 Number of Counties</th>
<th>Week 40 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mild</td>
<td>36</td>
<td>17</td>
<td>Alachua, Bay, Brevard, Broward, Calhoun, Charlotte, Citrus, Clay, Collier, Dade, Desoto, Duval, Gadsden, Highlands, Hillsborough, Indian River, Lafayette, Lake, Leon, Manatee, Marion, Martin, Monroe, Okaloosa, Orange, Osceola, Palm Beach, Pinellas, Polk, Santa Rosa, Sarasota, Seminole, St. Lucie, Suwannee, Volusia, Washington</td>
</tr>
<tr>
<td>Moderate</td>
<td>3</td>
<td>1</td>
<td>Holmes, Lee, Okeechobee</td>
</tr>
<tr>
<td>Widespread</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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 40, one county indicated that activity was decreasing, 34 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 40 as of 1:00 p.m. October 9, 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

**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 40, 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 records data are currently considered to be complete through week 39, 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 39 (ending October 5, 2013):
- 155 preliminary estimated pneumonia and influenza deaths reported
- Upper bound of 95% confidence interval for prediction: 175 deaths
- No excess deaths.

**FIGURE 25** shows pneumonia and influenza deaths for all Florida counties, Week 40, 2010 - Week 41, 2013, as reported into ESSENCE-FL.

**FIGURE 26** shows pneumonia and influenza deaths for all Florida counties by age group, Week 40, 2010 - Week 41, 2013, as reported into ESSENCE-FL.

*Death records data reported into ESSENCE-FL are currently considered to be complete through week 39, 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 40.

**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 40, 2013 there was one influenza or ILI outbreak reported in EpiCom.

Clay County: An assisted living facility reported 12 residents ill with ILI. Specimens were collected and forwarded to BPHL, results are pending. CDC outbreak control measures were discussed with the facility’s staff.

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 20, 2013**  
**as Reported by 11:00 a.m. May 22, 2013**

One influenza or ILI outbreak has been reported into EpiCom in the 2013-2014 season so far.
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 visits 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/