Summary

National influenza activity:
- Influenza activity continues to increase 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.
  - Vaccination is still recommended as it provides some protection against drifted viruses and it also protects against other circulating strains. People who have not yet been vaccinated should get vaccinated now.
  - The CDC recommends the use of neuraminidase inhibitor antiviral medications, when indicated, for treatment and prevention to influenza, as an adjunct to vaccination. More information can be found here: http://www.floridahealth.gov/diseases-and-conditions/influenza/documents/Other/influenza-letter-for-health-care-providers.pdf.

State Influenza and influenza-like illness (ILI) activity:
- The 2014-15 flu season is in full swing in Florida.
  - While it is not uncommon for influenza and ILI activity levels to increase during this time of year, current activity levels are above levels seen during previous years at this time. Influenza activity has increased the most in people over 65 in the past few weeks, influenza activity remains highest in children and overall is widespread throughout Florida.
  - Due to increased influenza activity in all regions of the state, Florida reported widespread influenza activity to CDC in week 53. This is the fourth week reporting widespread activity; this represents the geographic spread of influenza in Florida.
  - Most Florida counties reported increasing influenza activity. In week 53, 34 counties reported increasing influenza activity; 30 counties indicated activity is at a plateau.
  - Emergency department (ED) and urgent care center (UCC) ILI visits are increasing in all regions.
    - The proportion of visits to EDs and UCCs with a chief complaint of ILI and the proportion of visits resulting in a discharge diagnosis of influenza for those ≤19 years old are at or near what we typically see at the peak of flu season. Increased influenza activity in children typically comes ahead of increases in activity in adults and the elderly.
    - There continues to be increased levels of influenza in pregnant women presenting to EDs for care that is above expected levels for this time of year. 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
  - 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 53, 40 of 57 (70.2%) specimens submitted for influenza testing at BPHL were PCR positive for seasonal strains of influenza: thirty-one were positive for influenza A (H3), seven were influenza A not yet subtyped, and one was influenza B not yet subtyped. While it is too early to tell if this flu season will be worse than other years, seasons when influenza A (H3) predominately circulates are often associated with higher morbidity and mortality, particularly in the elderly and very young.
  - Six outbreaks of influenza (two or more cases of influenza or ILI in a specific setting) were reported to EpiCom in week 53.
  - No pediatric influenza-associated deaths were reported in week 53.
  - The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 53 was below the excess threshold.

Map 1: County Influenza Activity Week 53, 2014
- Twenty-four counties reported moderate influenza activity. For more information, see page 6.

Map 2: Influenza and ILI Outbreaks Week 53, 2014
- Forty-five outbreaks of ILI or influenza have been reported since Week 40, 2014. For more information, see page 10.
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.

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., January 6, 2015.
- Eight of 13 ILINet Super-Sentinels reported visit counts as of 5:00 p.m., January 6, 2015.

In week 53, the number of visits to ILINet sentinel providers for ILI decreased in the 0-4, 5-24, and 25-64 age groups. The number of visits in the 65+ age group increased in week 53.

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

In Figure 2 shows ILI visit counts reported by ILINet sentinel providers statewide by age group.

### Table 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 53

<table>
<thead>
<tr>
<th>Measure</th>
<th>Difference from Previous Week</th>
<th>Current Week 53</th>
<th>Previous Week 52</th>
<th>Page of Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall statewide activity code reported to CDC</td>
<td>No Change</td>
<td>Widespread</td>
<td>Widespread</td>
<td>1</td>
</tr>
<tr>
<td>Percent of visits to ILINet providers for ILI</td>
<td>▼ 1.3</td>
<td>2.8%</td>
<td>4.1%</td>
<td>2</td>
</tr>
<tr>
<td>Percent of ED and UCC visits (from ESSENCE-FL) due to ILI</td>
<td>▼ 0.8</td>
<td>5.0%</td>
<td>5.8%</td>
<td>3</td>
</tr>
<tr>
<td>Percent of laboratory specimens that were positive for influenza</td>
<td>▼ 8.6</td>
<td>70.2%</td>
<td>78.8%</td>
<td>5</td>
</tr>
<tr>
<td>Number of counties reporting moderate influenza activity</td>
<td>▼ 2</td>
<td>24</td>
<td>26</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>▼ 5</td>
<td>34</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>6</td>
<td>4</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 219 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 has been 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 for the 0-4, 25-64, and 85+ age groups at this time. The percent of ED and UCC visits for ILI is similar to levels seen in previous years for the 5-24 age group at this time.

**ESSENCE-FL Syndromic Surveillance-Statewide**

While the proportion of ED and UCC visits for ILI has increased the most over 65 age group in the past few weeks, activity remains highest in children.
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 (R DSTF) regions.

- ED and UCC visits for ILI in R DSTF Regions 3-5 and 7 are above levels seen during previous years at this time.
- ED and UCC visits for ILI in R DSTF Regions 1, 2 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), influenza A (2009 H1N1), 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.

The drifted Influenza A (H3) strain has been detected in Florida.
As of 11:30 a.m. January 7, 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 53 (ending January 3, 2015) as Reported by 11:30 a.m. January 7, 2015**

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Week 53 Number of Counties</th>
<th>Week 52 Number of Counties</th>
<th>Week 53 Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>0</td>
<td>0</td>
<td>Desoto, Dixie, Gilchrist, Hamilton, Okeechobee, Washington</td>
</tr>
<tr>
<td>No Activity</td>
<td>6</td>
<td>3</td>
<td>Baker, Bay, Calhoun, Citrus, Clay, Collier, Dade, Escambia, Flagler, Franklin, Gadsden, Gulf, Hernando, Highlands, Holmes, Jackson, Lafayette, Lake, Levy, Liberty, Manatee, Martin, Monroe, Okaloosa, Osceola, Palm Beach, Polk, Santa Rosa, Sarasota, St. Johns, St. Lucie, Sumter, Suwannee, Taylor, Volusia, Wakulla</td>
</tr>
<tr>
<td>Mild</td>
<td>36</td>
<td>38</td>
<td>Alachua, Bradford, Brevard, Broward, Charlotte, Duval, Glades, Hardee, Hendry, Hillsborough, Indian River, Jefferson, Lee, Leon, Madison, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, Seminole, Union, Walton</td>
</tr>
<tr>
<td>Moderate</td>
<td>24</td>
<td>26</td>
<td>Columbia</td>
</tr>
<tr>
<td>Widespread</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Twenty-four counties reported moderate activity.

Thirty-four 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 53, two counties indicated that activity was decreasing, 30 indicated activity was about the same as previous weeks and 34 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 53 as of 11:30 a.m. January 7, 2015.
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 53 as of 11:30 a.m., January 7, 2015.
FIGURE 19 - FIGURE 23 show the activity levels in various facilities by county as reported by CHD influenza coordinators for week 53 as of 11:30 a.m., January 7, 2015.

Pediatric Influenza-Associated Mortality

No influenza-associated pediatric deaths were reported in week 53.

Three influenza-associated pediatric deaths have been reported so far in the 2014-15 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 52, 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 52 (ending Dec 27, 2014):
- 218 preliminary estimated pneumonia and influenza deaths were reported.
- Upper bound of 95% confidence interval for prediction: 242 deaths.
- No excess deaths.

**FIGURE 25** shows pneumonia and influenza deaths for all Florida counties, week 40, 2010 - week 53 2014, as reported into ESSENCE-FL. Deaths due to pneumonia and influenza are at or near levels seen during previous years at this time.

As of week 52 (ending Dec 27, 2014):
- 2,705 pneumonia and influenza deaths have been reported so far in 2014-15 influenza season.

**FIGURE 26** shows pneumonia and influenza deaths for all Florida counties by age group, week 40, 2012 - week 53, 2014, as reported into ESSENCE-FL.

*Death records data reported into ESSENCE-FL are currently considered to be complete through week 52, 2014.*
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

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 53.

**Influenza and ILI Outbreaks Reported in EpiCom**

In week 53, 2015, six outbreaks of influenza or ILI were reported into EpiCom.

**Desoto County:**
- A nursing facility reported 19 residents and four staff with ILI. Four specimens were collected and tested negative for influenza by rapid antigen test at their local healthcare provider. One specimen was collected and tested positive for RSV at BPHL. Tests for coronaviruses and enteroviruses at BPHL are still pending. Chemoprophylaxis was administered to all residents. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

**Jackson County:**
- A nursing facility reported an outbreak of ILI where three specimens were collected and tested positive for influenza A by rapid antigen test at their local healthcare provider. Two residents were hospitalized. Prophylaxis was recommended for residents and staff. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

**Orange County:**
- An assisted living facility reported an outbreak of ILI where three specimens were collected and tested positive for influenza A by PCR test at their local healthcare provider. Prophylaxis was given to all eligible residents and 71 staff. Resident vaccination rate was 98%. This investigation is ongoing.

**Palm Beach County:**
- A nursing facility reported 12 residents and two staff with ILI. One resident was hospitalized and tested positive for influenza A. Chemoprophylaxis was administered to all asymptomatic residents. Resident vaccination rate was 87%. This investigation is ongoing.

**Seminole County:**
- A nursing facility reported 40 residents and eight staff with ILI. Fifteen specimens tested positive for influenza A by PCR at local healthcare provider. Six residents were hospitalized. Chemoprophylaxis was administered to roommates of ill residents. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

**St. Lucie County:**
- A long term care facility reported three residents hospitalized with ILI. Three specimens were collected on these cases: one specimen tested positive for influenza B by rapid antigen test at their local healthcare provider, one specimen tested positive for influenza B Yamagata lineage at BPHL, and the third specimen has been submitted for testing at BPHL. Chemoprophylaxis was administered to all eligible residents. Infection control measures were reviewed with facility leadership.

**Map 6: Influenza and ILI outbreaks by county, Week 53, 2014 as Reported by 11:30 a.m., January 7, 2015**

Forty-five outbreaks of influenza or ILI have been reported into EpiCom so far in the 2014-2015 season.
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 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

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)

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

### Florida ILI Surveillance System Summary

#### Influenza and ILI Outbreaks (Continued)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number of outbreaks</th>
<th>Implicated Viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>10</td>
<td>• Two outbreaks due to influenza A unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Four outbreaks due to influenza A unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza (H3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Three outbreaks virus information not yet available</td>
</tr>
<tr>
<td>Colleges and universities</td>
<td>0</td>
<td>• No outbreaks</td>
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<tr>
<td>Daycares</td>
<td>7</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 unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Two outbreaks due to influenza A unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Three outbreaks due to influenza (H3)</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>
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<tr>
<td>Nursing homes and long term care facilities</td>
<td>28</td>
<td>• Six outbreaks due to influenza A (H3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fourteen outbreaks due to influenza A unspecified</td>
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<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza A unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza (H3) and rhinovirus</td>
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<td>• One outbreak due to influenza A unspecified and RSV</td>
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<tr>
<td></td>
<td></td>
<td>• One outbreak due to RSV</td>
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<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza B Yamagata</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Two outbreaks virus information not yet available</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>Total</td>
<td>45</td>
<td>• Four outbreaks due to influenza A unspecified and influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Twenty 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>• Two outbreaks due to RSV</td>
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<td></td>
<td></td>
<td>• Ten outbreaks due to influenza A (H3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza A unspecified and RSV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza B Yamagata</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One outbreak due to influenza B unspecified</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Six outbreaks, virus information not yet available</td>
</tr>
</tbody>
</table>

### TABLE 4: Summary of Florida Influenza and ILI Outbreaks by Facility Status, Week 40-53, 2014

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