# FLORIDA INFLUENZA SURVEILLANCE







Produced on: October 14, 2009

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Produced by: Bureau of Epidemiology, Florida Department of Health (FDOH)

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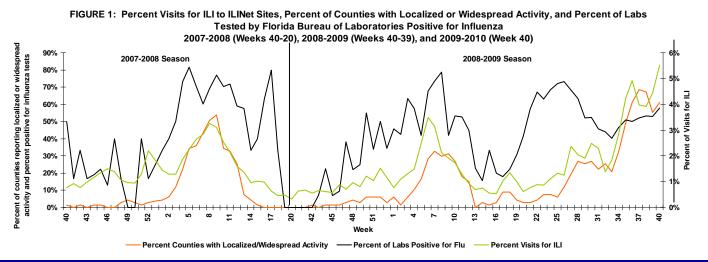
## I. SUMMARY

The Florida Department of Health (FDOH) monitors influenza activity through multiple surveillance systems. This report is produced weekly in order to assist FDOH monitor the current influenza and novel H1N1 influenza situation. Data summarized in this report includes multiple sources: 1) emergency department syndromic surveillance as monitored through Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE); 2) laboratory data from the Bureau of Laboratories; 3) county influenza activity levels as reported by county health department epidemiologists; 4) the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS); 5) Florida Outpatient Influenza-like Illness Surveillance Network (ILINet) providers; 6) novel H1N1 influenza notifiable disease data for special surveillance populations (deaths, hospitalized pregnant women, and those with life threatening illness) and pediatric influenza-associated mortality as reported in the Merlin system for notifiable disease surveillance; and 7) outbreaks or clusters of influenza-like illness (ILI) as reported through EpiCom. The criteria for influenza-like illness differ somewhat across the data systems.

These data sources indicate influenza-like illness activity increased sharply around week 34, coinciding with the start of the school year for students. ESSENCE data show a slight increase for week 40, but it is has not followed the same sharp increases we saw around week 34. ILlnet data showed a slight increase from the previous week at 5.51%. The number of counties reporting widespread activity decreased for week 40. The majority (94%) of the influenza viruses detected were novel H1N1 influenza viruses. Virtually all infections due to the new virus are caused by strains that are sensitive to Tamiflu and Relenza.

Each week an activity code for the state as a whole is reported to the Centers for Disease Control and Prevention (CDC). There are five possible categories: No Activity, Sporadic, Local, Regional, or Widespread. For week 40, Florida meets the CDC widespread activity definition: outbreaks of influenza or increases in ILI cases in more than half the regions of the state with recent laboratory evidence of influenza in those regions. The CDC report can be viewed at <a href="http://www.cdc.gov/flu/weekly/usmap.htm">http://www.cdc.gov/flu/weekly/usmap.htm</a>.

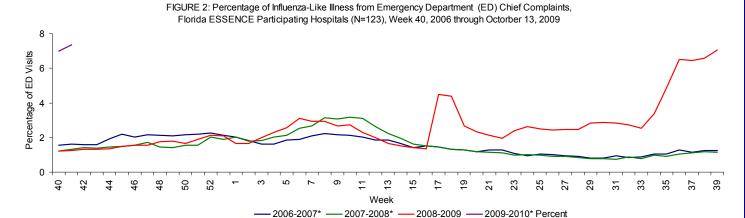
Figure 1 shows the progression of the 2007-2008 and 2008-2009 Florida influenza seasons as monitored by three of the seven surveillance systems: ILINet, Bureau of Laboratories viral surveillance, and county activity levels.



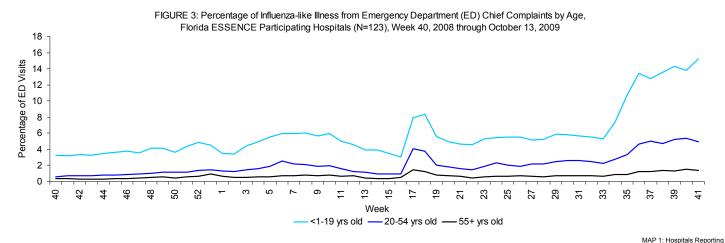
Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data from 123 hospitals. These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is influenza-like illness (ILI), which is composed of chief complaints that include the words "influenza" or "flu", or either fever and cough or sore throat. The data are collected on a daily basis from participating hospital emergency departments (ED) across the state.

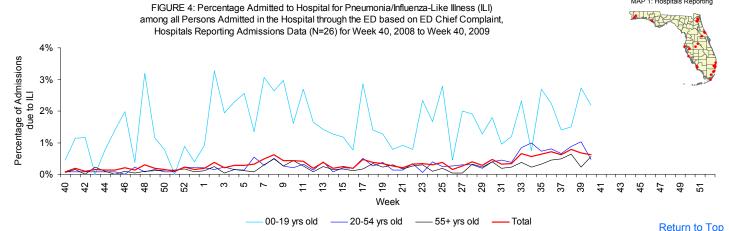
Overall activity for influenza-like illness remains well above expected levels for this time of year. In most areas it exceeds levels seen at the peak of normal influenza season, and exceeds the initial surge of worried well at week 17, 2009. The majority of the increase is occurring in younger age groups. These data are based on the patient's chief complaint and may not reflect the actual diagnosis.

Hospital admissions due to ILI as a percentage of all hospital admissions are shown in the bottom graph (Figure 4). Twenty-six facilities participating in ESSENCE have been able to provide historical admissions data and are included here. The percentage of admissions for ILI is highest in those less than 20 years old, but the small numerators and denominators in this age group result in high variability. The percentages in the older age groups is less variable and shows a distinct increase starting around week 32. Overall, the percentage of admissions due to ILI is very low. These data are based on the patient's chief complaint when presenting to the emergency department and may not reflect the actual diagnosis.



\*There is no week 53 for the 2006-2007, 2007-2008, or 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.





The figures below describe emergency department chief complaint data from ESSENCE by Domestic Security Task Force Region (Region 2 does not have any participating facilities in ESSENCE and therefore is not displayed). All regions with reporting hospitals show very large increases in flu activity in the last few weeks coinciding with school opening. At the time novel H1N1 influenza was first identified (week 17, 2009), data from 5 of the 7 regions indicated large increases in patients presenting for care of influenza-like illness. Our interpretation of this peak is that it includes many individuals who we may classify as "worried well," others may be truly ill with a respiratory illness but in the absence of swine flu news may have stayed home to get better, and then of course some of these probably had some strain of influenza. The increase in ILI activity after week 21 are more likely to be associated with actual 2009 H1N1 influenza infection.

# FIGURE 5: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=3), Week 40, 2007 through October 13, 2009

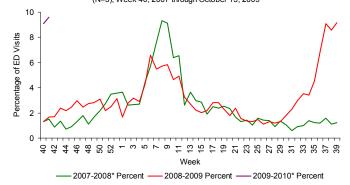


FIGURE 7: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals

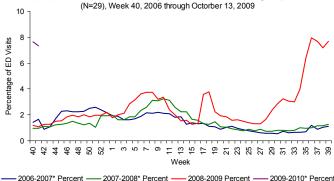
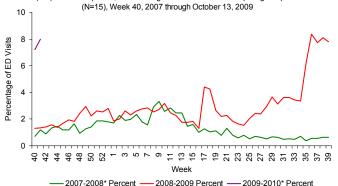


FIGURE 9: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2007 through October 13, 2009



MAP 2: Hospitals Reporting Emergency Department (ED) Data to Florida ESSENCE, October 13, 2009 (N=123)

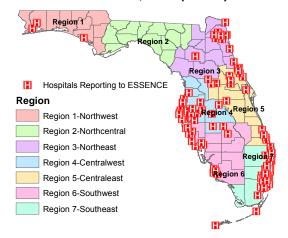


FIGURE 6: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14) Week 40, 2007 through October 13, 2009

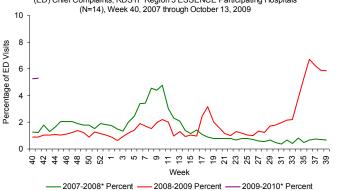


FIGURE 8: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (NI-16) Week 40, 2007 through October 13, 2009

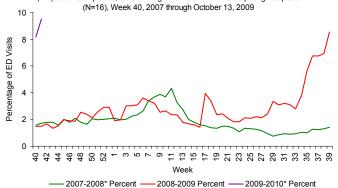
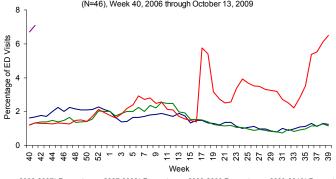


FIGURE 10: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=46), Week 40, 2006 through October 13, 2009

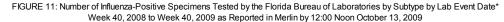


- 2006-2007\* Percent ---- 2007-2008\* Percent ---- 2008-2009 Percent ---- 2009-2010\* Percer

As of 12:00 Noon October 13, 152 specimens with a lab event date\* during week 40 were tested by the Bureau of Laboratories (BOL). Of those, 88 (58%) were positive for influenza. Of the 88 positive for influenza, 83 (94%) were novel H1N1 influenza and 5 (6%) were influenza A unspecified. For the first time since the spring, we have identified a positive test in the state BOL for influenza B as well as influenza A. One influenza B specimen was identified with a lab event date of week 39. Influenza B, unlike influenza A, does not cause epidemics.

\*Please note that lab event date is defined as the earliest of the following dates associated with the lab: date collected, date received by the laboratory, date reported, or date inserted.

Enhanced laboratory testing activities in response to novel H1N1 influenza activity was initiated in week 17. Increased testing lead to an increase in the total number of positive influenza isolates identified. Laboratory information is preliminary and may change as additional results are received. Totals from previous weeks will be adjusted to reflect correct specimen numbers.



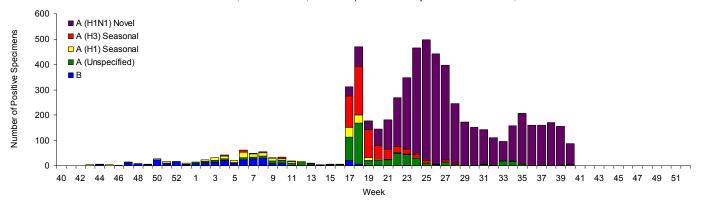


FIGURE 12: Number of Specimens Tested by Florida Bureau of Laboratories and Percent Positive for Influenza by Lab Event Date\*
Week 40, 2008 to Week 40, 2009 as Reported by 12:00 Noon October 13, 2009

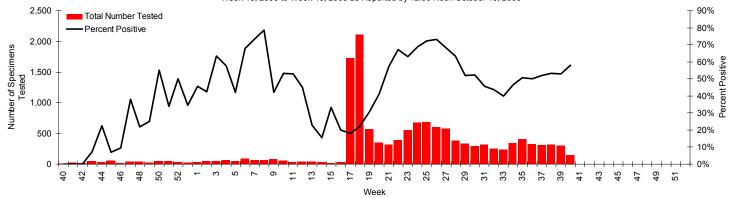
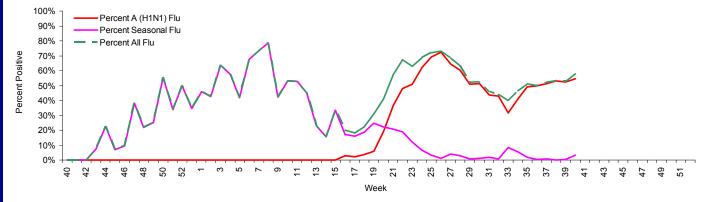


FIGURE 13: Percentage of Specimens Tested by Florida Bureau of Laboratories Positive for Influenza by Subtype by Lab Event Date\*
Week 40, 2008 to Week 40, 2009 as Reported by 12:00 Noon October 13, 2009



For county-specific laboratory data, please refer to the Flu Lab Report in Merlin. For instructions on how to use the Flu Lab Report, please see the Guide to Flu Lab Report on the Bureau of Epidemiology website:

As of 11:30 a.m. October 14, 2009, a total of 52 (77.6%) counties had reported their weekly level of influenza activity. Please note that data reported by counties after the deadline are recorded but may not be included in the activity map below.

TABLE 1: Weekly County Influenza Activity for Week 40 (ending October 10, 2009) as

|   | Reported by 11:30 a.m. October 14, 2009 |                  |  |  |  |  |  |
|---|---|------------------|--|--|--|--|--|
| Activity Week 39 Number of Counties Week 40 Week 40 Counties Week 40 Counties |   | Week 40 Counties |  |  |  |  |  |
| No Report   | 18                                      | 15               | Bay, Calhoun, Dixie, Franklin, Gadsden, Gilchrist, Gulf, Hamilton, Jefferson, Liberty, Madison, Putnam, Santa Rosa, Taylor, Washington   |  |  |  |  |
| No Activity   | 0                                       | 0                |  |  |  |  |  |
| Sporadic  | 12                                      | 11               | Alachua, Charlotte, Holmes, Indian River, Levy, Monroe, Nassau, Okeechobee, St. Johns, Sumter, Union   |  |  |  |  |
| Localized   | 21                                      | 31               | Baker, Bradford, Brevard, Broward, Citrus, Clay, Collier, Columbia, Dade, Desoto, Escambia, Flagler, Glades, Hardee, Hernando, Highlands, Hillsborough, Jackson, Lake, Lee, Leon, Marion, Martin, Osceola, Palm Beach, Pasco, Pinellas, Polk, Volusia, Wakulla, Walton |  |  |  |  |
| Widespread  | 16                                      | 10               | Duval, Hendry, Lafayette, Manatee, Okaloosa, Orange, Sarasota, Seminole, St. Lucie, Suwannee   |  |  |  |  |

MAP 3: Weekly County Influenza Activity for Week 40 (ending October 10, 2009) as Reported by 11:30 a.m. October 14, 2009

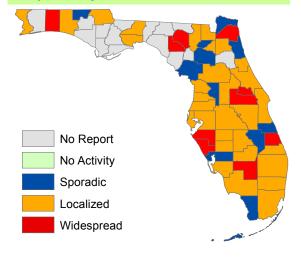
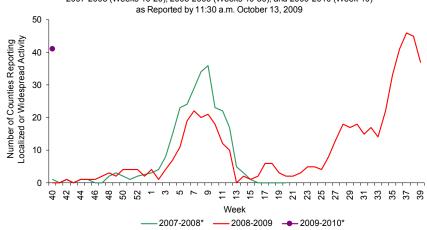


FIGURE 14: Number of Counties Reporting Localized or Widespread Actitvity, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Week 40)



\*There is no week 53 for the 2007-2008 and 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1. The number of counties reporting localized or widespread influenza activity has been increasing over the past weeks and is now at 39 (58%). This is unusual for this time of year and similar to what we expect during the normal winter influenza season.

#### COUNTY INFLUENZA ACTIVITY LEVEL DEFINITIONS

#### 0 = No Activity:

Overall clinical activity remains low with no laboratory confirmed cases<sup>†</sup> in the county.

#### 1 = Sporadic:

- a. Isolated cases of laboratory confirmed influenza<sup>†</sup> in the county.
- b. An ILI§ outbreak in a single setting<sup>‡</sup> in the county. (No detection of decreased ILI§ activity by surveillance systems\*)

#### 2 = Localized:

- a. ILI§ activity detected by a single surveillance system\* within the county. ILI<sup>§</sup> activity has not been detected by multiple ILI surveillance systems.)
- b. Two or more outbreaks (ILI§ or lab confirmed†) detected in a single setting‡ in the

#### AND

c. Recent (within past three weeks) laboratory evidence<sup>†</sup> of influenza activity in the county.

#### 3 = Widespread:

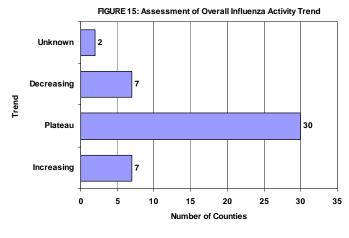
- a. An increase in ILI§ activity detected in ≥2 surveillance systems in the county.
- b. Two or more outbreaks ((ILI<sup>§</sup> or laboratory confirmed<sup>†</sup>) detected in *multiple* settings<sup>‡</sup> in the county.

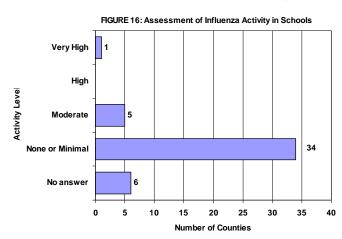
No Report: (No report was received from the county at the time of publication)

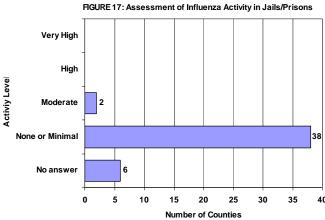
- <sup>†</sup> Laboratory confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.
- §ILI = Influenza-like illness, fever ³ 100°F AND sore throat and/or cough *in the absence* of another known cause.
- \*ILI surveillance system activity can be assessed using a variety of surveillance systems including sentinel providers, school/workplace absenteeism, longterm care facility (LTCF) surveillance, correctional institution surveillance, hospital emergency department surveillance and laboratory surveillance.

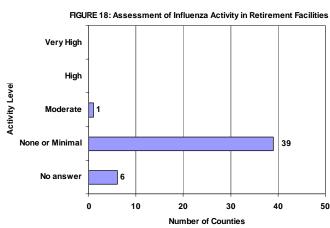
County influenza activity data is reported to the Bureau of Epidemiology through EpiGateway on a weekly basis by the county influenza coordinator. Specific information is requested about laboratory results, outbreak reports, and surveillance system activity. Figures 16-20 displayed below reflect a county's assessment of influenza activity within their county as a whole as well as influenza activity within specific settings. For the week ending October 10th, seven counties indicated that activity was decreasing, 30 indicated it was about the same, and seven indicated that activity was increasing.

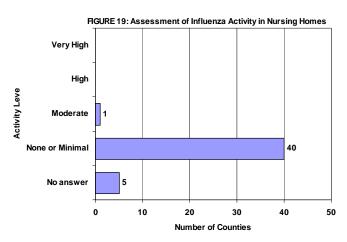
Assessment of Overall Influenza Activity Trend in County and Activity Levels in Various Facilities by County as Reported by County Health Department Flu Coordinators for Week 40 as of 8:30 a.m. October 14, 2009

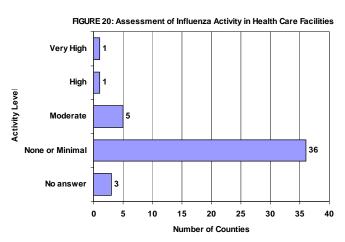






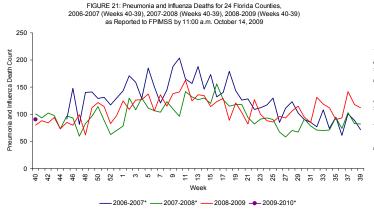






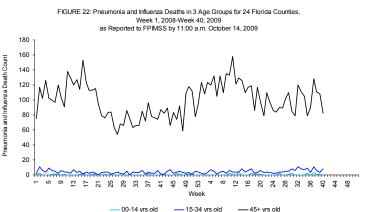
The Florida Department of Health started the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS) in 2006 in order to more timely assess the number of pneumonia and influenza deaths occurring in the state. This system was modeled on the CDC's 122 cities surveillance system. Each week, the vital statistics office in the 24 most populous counties in Florida manually reviews the death certificates received for the previous week. Any mention of pneumonia or influenza on the death certificate, with certain prescribed exceptions, is counted as a pneumonia or influenza death. These counts, by age group, are then reported to the state via the EpiGateway web-interface.

All 24 of the 24 participating counties reported data to FPIMSS for week 40 (ending October 10, 2009) as of 11:00 a.m. October 14, 2009. Ninety deaths were reported; 107 deaths were expected for week 40 indicating that there were no excess deaths. The majority of the deaths are in those aged 45 years and older.



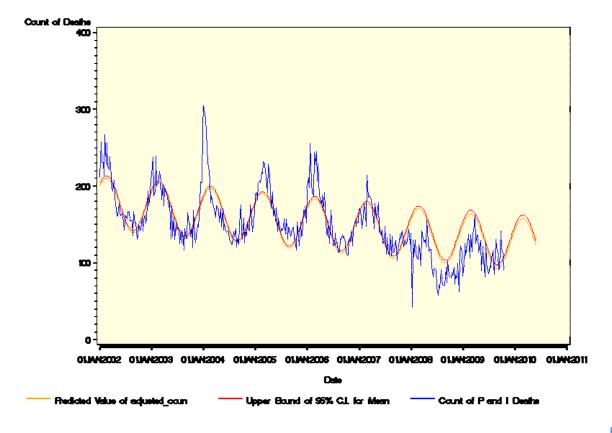
\*There is no week 53 for the 2006-2007, 2007-2008, or 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

All 24 of the 24 participating counties reported their data for week 40. There were no excess deaths.

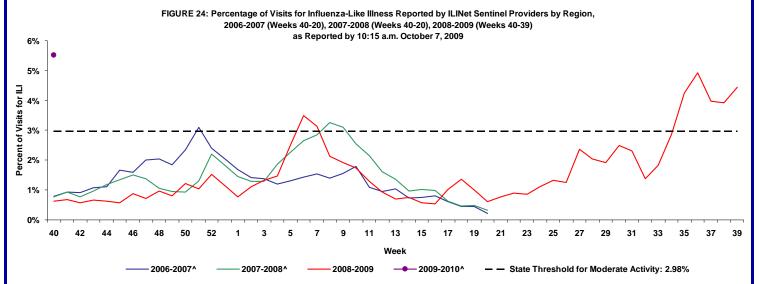


All 24 of the 24 participating counties reported their data for week 40 as of 11:00 a.m. October 14, 2009. The highest number of pneumonia and influenza deaths has occurred in those over 45.

FIGURE 23: Pneumonia and Influenza Deaths for 24 Florida Counties, Counts Model January 1, 2002-October 10, 2009 as Reported to FPIMSS as of 11:00 a.m. October 14, 2009



During week 40, 5.51% of patient visits to Florida ILINet sentinel providers were due to ILI\*. This percentage is above the statewide threshold for moderate activity of 2.98%\*\*. The percentage of visits ranged from 2.72% in the Northwest to 11.51% in the Southeast region. As of 9:30 a.m. October 14, 2009, only 35% of ILINet sentinel providers across the state had reported. Numbers will change as more reports are received. Data from previous weeks are updated as additional reports are received.



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

<sup>\*\*</sup>The 2008—2009 threshold for moderate activity is calculated from ILINet data. The threshold for moderate activity is the mean percentage of patient visits for ILI during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with 10% or greater of laboratory specimens testing positive are included in the calculation. Due to wide variability in regional level data, it is not appropriate to apply the state baseline to regional data. ^There is no week 53 during the 2006-2007, 2007-2008, and 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

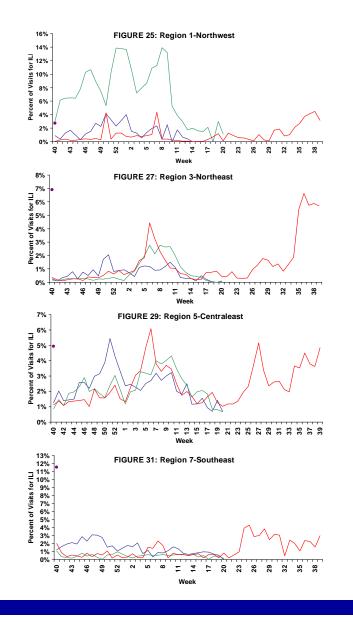
The table below shows the weighted ILI activity by Domestic Security Task Force Region (RSTDF) as reported by Florida ILINet physicians for week 40 (ending October 10, 2009). The graphs below include ILI activity as reported by sentinel physicians for the 2006-2007, 2007-2008, and 2008-2009 seasons through week 40.

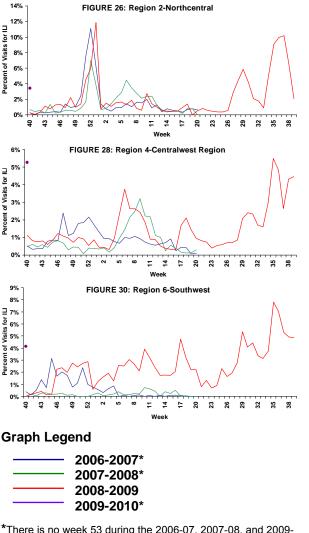
MAP 4: RSTDF Regions for ILINet Data



| TABLE 3: ILINet Providers and Percent of Visits for ILI by Region,<br>Week 39, as Reported by 9:30 a.m. October 14, 2009 |  |    |          |       |  |
|--|--|----|----------|-------|--|
| Region   | Number of Providers that Percent Reported Visits for I |    |          |       |  |
| Region 1-Northwest   | 17   | 6  | (35.29%) | 2.72% |  |
| Region 2-Northcentral  | 5  | 2  | (40.00%) | 3.42% |  |
| Region 3-Northeast   | 23   | 10 | (43.48%) | 6.90% |  |
| Region 4-Centralwest   | 38   | 10 | (26.32%) | 5.27% |  |
| Region 5-Centraleast   | 59 28 (47.46%) 4.93%                                   |    |          |       |  |
| Region 6-Southwest   | 21 4 (19.05%) 4.15%                                    |    |          |       |  |
| Region 7-Southeast   | · · · · · · · · · · · · · · · · · · ·                  |    |          |       |  |
| Total  | 184  | 64 | (34 78%) | 5 51% |  |

Percentage of Visits for Influenza-Like Illness Reported by ILINet Sentinel Providers by RSTDF Region, 2006-07 (Weeks 40-20), 2007-08 (Weeks 40-20), 2008-09 (Weeks 40-40) as Reported by 9:30 a.m. October 14, 2009 Please refer to table above for the number of providers reporting for each region. Data should be interpreted with caution, due to the low number of providers reporting in some regions. Numbers will change as more data are received.





\*There is no week 53 during the 2006-07, 2007-08, and 2009-10 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

Although the number of cases, hospitalizations\*, and deaths continues to rise, there is no evidence that the virus has changed to a more virulent form, either in Florida, the rest of the U.S., or elsewhere in the world.

\*Please note that under the current surveillance strategy, case reporting is only required for confirmed or probable cases of novel H1N1 influenza in a) patients with life-threatening illness, b) pregnant women who are hospitalized, and c) deaths. Use caution when interpreting hospitalization data, as only hospitalized patients with life-threatening illness are reportable and there is some variability in communities has to how "life-threatening-illness" is interpreted.

TABLE 4: Hospitalizations\* in all Reported Novel H1N1 Influenza Cases by County as of 12:00 Noon October 13, 2009

|              |        |         | u0 0 | 1 12.00 110011          | COLOBOL 10, | 2000   |         |     |                     |
|--------------|--------|---------|------|-------------------------|-------------|--------|---------|-----|---------------------|
| County       | Number | Percent |      | (percent of spitalized) | County      | Number | Percent |     | ercent of italized) |
| Alachua      | 12     | 1.38    | 10   | (83.33)                 | Levy        | 2      | 0.23    | 0   | (0.00)              |
| Baker        | 2      | 0.23    | 2    | (100.00)                | Manatee     | 10     | 1.15    | 2   | (20.00)             |
| Вау          | 2      | 0.23    | 0    | (0.00)                  | Marion      | 3      | 0.34    | 0   | (0.00)              |
| Brevard      | 10     | 1.15    | 7    | (70.00)                 | Martin      | 3      | 0.34    | 1   | (33.33)             |
| Broward      | 73     | 8.37    | 21   | (28.77)                 | Monroe      | 4      | 0.46    | 0   | (0.00)              |
| Calhoun      | 1      | 0.11    | 0    | (0.00)                  | Nassau      | 2      | 0.23    | 2   | (100.00)            |
| Charlotte    | 3      | 0.34    | 1    | (33.33)                 | Okaloosa    | 4      | 0.46    | 3   | (75.00)             |
| Citrus       | 11     | 1.26    | 1    | (9.09)                  | Okeechobee  | 1      | 0.11    | 0   | (0.00)              |
| Clay         | 2      | 0.23    | 1    | (50.00)                 | Orange      | 77     | 8.83    | 26  | (33.77)             |
| Collier      | 3      | 0.34    | 2    | (66.67)                 | Osceola     | 5      | 0.57    | 2   | (40.00)             |
| Columbia     | 1      | 0.11    | 0    | (0.00)                  | Palm Beach  | 71     | 8.14    | 31  | (43.66)             |
| Dade         | 340    | 38.99   | 99   | (29.12)                 | Pasco       | 2      | 0.23    | 0   | (0.00)              |
| Duval        | 44     | 5.05    | 23   | (52.27)                 | Pinellas    | 22     | 2.52    | 16  | (72.73)             |
| Escambia     | 3      | 0.34    | 0    | (0.00)                  | Polk        | 17     | 1.95    | 9   | (52.94)             |
| Flagler      | 1      | 0.11    | 0    | (0.00)                  | Putnam      | 3      | 0.34    | 2   | (66.67)             |
| Gadsden      | 4      | 0.46    | 1    | (25.00)                 | Santa Rosa  | 6      | 0.69    | 1   | (16.67)             |
| Hardee       | 1      | 0.11    | 0    | (0.00)                  | Sarasota    | 9      | 1.03    | 5   | (55.56)             |
| Hendry       | 1      | 0.11    | 0    | (0.00)                  | Seminole    | 18     | 2.06    | 5   | (27.78)             |
| Hernando     | 7      | 0.80    | 3    | (42.86)                 | St. Johns   | 6      | 0.69    | 1   | (16.67)             |
| Highlands    | 4      | 0.46    | 0    | (0.00)                  | St. Lucie   | 5      | 0.57    | 3   | (60.00)             |
| Hillsborough | 23     | 2.64    | 9    | (39.13)                 | Taylor      | 1      | 0.11    | 1   | (100.00)            |
| Indian River | 2      | 0.23    | 0    | (0.00)                  | Volusia     | 17     | 1.95    | 12  | (70.59)             |
| Lake         | 6      | 0.69    | 0    | (0.00)                  | Walton      | 1      | 0.11    | 1   | (100.00)            |
| Lee          | 27     | 3.10    | 17   | (62.96)                 | Total       | 872    | 100.00  | 320 | (36.70)             |

The number of hospitalizations in cases reported each week since July 26, 2009 has ranged from 13 hospitalizations (week 33) to 54 hospitalizations (week 40) with an average of 26.5 hospitalizations in cases reported per week.

TABLE 5: Recent Hospitalizations\* in Novel H1N1 Influenza Cases by County, 12:00 Noon October 6, 2009 to 12:00 Noon October 13, 2009

| County       | Number | Percent |    | percent of<br>pitalized) |
|--------------|--------|---------|----|--------------------------|
| Alachua      | 2      | 3.70    | 2  | (100.00)                 |
| Bay          | 1      | 1.85    | 0  | (0.00)                   |
| Broward      | 3      | 5.56    | 1  | (33.33)                  |
| Calhoun      | 1      | 1.85    | 0  | (0.00)                   |
| Clay         | 1      | 1.85    | 0  | (0.00)                   |
| Dade         | 17     | 31.48   | 5  | (29.41)                  |
| Duval        | 4      | 7.41    | 3  | (75.00)                  |
| Escambia     | 1      | 1.85    | 0  | (0.00)                   |
| Hillsborough | 2      | 3.70    | 1  | (50.00)                  |
| Indian River | 2      | 3.70    | 0  | (0.00)                   |
| Lee          | 4      | 7.41    | 4  | (100.00)                 |
| Manatee      | 2      | 3.70    | 0  | (0.00)                   |
| Okaloosa     | 1      | 1.85    | 1  | (100.00)                 |
| Orange       | 1      | 1.85    | 1  | (100.00)                 |
| Palm Beach   | 4      | 7.41    | 4  | (100.00)                 |
| Pinellas     | 2      | 3.70    | 2  | (100.00)                 |
| Polk         | 2      | 3.70    | 2  | (100.00)                 |
| Santa Rosa   | 2      | 3.70    | 0  | (0.00)                   |
| Sarasota     | 1      | 1.85    | 1  | (100.00)                 |
| Volusia      | 1      | 1.85    | 1  | (100.00)                 |
| Total        | 54     | 100.00  | 28 | (51.85)                  |

TABLE 6: Hospitalizations\* in all Reported Novel H1N1 Influenza Cases by Age as of 12:00 Noon October 13, 2009

| Age<br>group | Number | Percent | Rate<br>(per million<br>population) | NO underlying condition | ICU         |
|--------------|--------|---------|-------------------------------------|-------------------------|-------------|
| 0-4          | 130    | 14.91   | 114.96                              | 28 (21.54)              | 35 (26.92)  |
| 5-24         | 248    | 28.44   | 51.71                               | 56 (22.58)              | 68 (27.42)  |
| 25-49        | 291    | 33.37   | 46.94                               | 87 (29.90)              | 123 (42.27) |
| 50-64        | 155    | 17.78   | 42.25                               | 21 (13.55)              | 82 (52.90)  |
| 65+          | 48     | 5.50    | 14.46                               | 5 (10.42)               | 12 (25.00)  |
| Total        | 872    | 100.00  | 45.62                               | 197 (22.59)             | 320 (36.70) |

TABLE 7: Hospitalizations\* in all Pregnant Women with Novel H1N1 Influenza Cases by Underlying Medical Condition Status as of 12:00 Noon October 13, 2009

| Underlying medical condition status | Number | Percent | ICU        | Death     |
|-------------------------------------|--------|---------|------------|-----------|
| No underlying medical condition     | 55     | 58.51   | 20 (36.36) | 3 (5.45)  |
| Underlying medical condition        | 23     | 24.47   | 7 (30.43)  | 3 (13.04) |
| Unknown                             | 16     | 17.02   | 4 (25.00)  | 0 (0.00)  |
| Total                               | 94     | 100.00  | 31 (32.98) | 6 (6.38)  |

All deaths in reported laboratory-confirmed novel H1N1 influenza cases are presented in the following tables. Note that novel H1N1 influenza may not necessarily be the attributable cause of death in all cases.

Approximately 25% of deaths are in people with no clear underlying medical condition.

121 deaths in those with laboratory-confirmed novel H1N1 influenza reported as of 12:00 noon October 13, 2009
11 deaths were newly reported (12:00 noon October 6, 2009 to 12:00 noon October 13, 2009)

**TABLE 8: Deaths in Novel H1N1 Influenza Cases** by County as of 12:00 Noon October 13, 2009 Number **Percent** County Alachua 4 3.31 Baker 1 0.83 Brevard 2 1.65 8.26 10 Broward Charlotte 1 0.83 Citrus 0.83 1 Clay 1 0.83 Dade 26 21.49 Duval 12 9 92 2 Hernando 1.65 Highlands 1 0.83 Hillsborough 8 6.61 1 0.83 Lake 3 Lee 2.48 Levy 1 0.83 Manatee 2 1.65 Monroe 1 0.83 Orange 6 4 96 Osceola 1 0.83 Palm Beach 6 4.96 0.83 Pasco 1 Pinellas 5.79 Polk 4 3.31 0.83 Santa Rosa 1 4 Sarasota 3.31 Seminole 2 1 65 St. Johns 1 0.83 St. Lucie 3.31 Taylor 1 0.83 Volusia 5 4.13 Walton 1 0.83 **Total** 121 100.00

| TABLE 9: Recent Deaths in Novel H1N1 Influenza Cases by County, 12:00 Noon October 6, 2009 to 12:00 Noon October 13, 2009 |        |         |  |  |  |
|---|--------|---------|--|--|--|
| County  | Number | Percent |  |  |  |
| Broward   | 1      | 9.09    |  |  |  |
| Dade  | 2      | 18.18   |  |  |  |
| Duval   | 1      | 9.09    |  |  |  |
| Lake  | 1      | 9.09    |  |  |  |
| Manatee   | 1      | 9.09    |  |  |  |
| Pasco   | 1      | 9.09    |  |  |  |
| Pinellas  | 2      | 18.18   |  |  |  |
| Polk  | 1      | 9.09    |  |  |  |
| Volusia 1 9.09  |        |         |  |  |  |
| Total 11 100.00   |        |         |  |  |  |

| as of 12:00 Noon October 13, 2009 |        |         |                                     |    |                      |
|-----------------------------------|--------|---------|-------------------------------------|----|----------------------|
| Age                               | Number | Percent | Rate<br>(per million<br>population) |    | nderlying<br>ndition |
| 0-4                               | 4      | 3.31    | 3.54                                | 0  | (0.00)               |
| 5-24                              | 16     | 13.22   | 3.34                                | 9  | (56.25)              |
| 25-49                             | 50     | 41.32   | 8.06                                | 16 | (32.00)              |
| 50-64                             | 43     | 35.54   | 11.72                               | 6  | (13.95)              |
| 65+                               | 8      | 6.61    | 2.41                                | 0  | (0.00)               |
| Total                             | 121    | 100.00  | 6.33                                | 31 | (25.62)              |

TABLE 10: Deaths in Novel H1N1 Influenza Cases by Age as of 12:00 Noon October 13, 2009

The number of deaths reported each week since July 26, 2009 has ranged from 2 deaths (week 37) to 13 deaths (week 38) with an average of 8.2 deaths reported per week.

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## XII. NOTIFIABLE DISEASE REPORTS: INFLUENZA-ASSOCIATED PEDATRIC MORTALITY

Influenza-associated deaths among those <18 years of age and/or post-influenza infection encephalitis are reportable; case report forms can be accessed at: http://www.doh.state.fl.us/disease\_ctrl/epi/topicscrforms.htm.

# **Influenza-Associated Pediatric Mortality**

- 0 influenza-associated deaths among those <18 years of age reported for week f40 of the 2009-2010 season</li>
- Total of 11 influenza-associated deaths among those <18 years of age reported for the 2008-2009 influenza season (week 40, 2008 to week 39, 2009)

Please note that the status of reported cases is subject to change upon receipt of additional information.

**292** confirmed or suspect outbreaks of novel influenza A (H1N1) have been reported as of October 10, 2009 Schools have been the most heavily impacted setting with 144 (49.3%) of the 292 outbreaks. Summer camps accounted for 50 (17.1%) of the outbreaks, daycares accounted for 20 (6.8%), and correctional facilities accounted for 18 (6.2%).

24 confirmed or suspect outbreaks of novel influenza A (H1N1) reported during week 40 (ending October 10, 2009)

During week 40, 24 new confirmed or suspect outbreaks of ILI and novel influenza A H1N1 were reported via EpiCom (please note that outbreaks may not have occurred during the week in which they were posted). These outbreaks occurred in 21 schools, one daycare, one military facility, and one workplace.

County health department epidemiologists should report influenza and ILI outbreaks via the Influenza Forum in EpiCom: https://fdens.com/vabtrs/GateStart.aspx

TABLE 11: Outbreaks Reported via EpiCom by County as of Week 40 (Ending October 10, 2009)

| _            | 2009)  |         |
|--------------|--------|---------|
| County       | Number | Percent |
| Alachua      | 1      | 0.3%    |
| Baker        | 2      | 0.7%    |
| Bradford     | 1      | 0.3%    |
| Brevard      | 1      | 0.3%    |
| Clay         | 4      | 1.4%    |
| Collier      | 7      | 2.4%    |
| Columbia     | 2      | 0.7%    |
| Duval        | 7      | 2.4%    |
| Escambia     | 42     | 14.4%   |
| Glades       | 1      | 0.3%    |
| Hamilton     | 1      | 0.3%    |
| Hendry       | 3      | 1.0%    |
| Hernando     | 1      | 0.3%    |
| Hillsborough | 54     | 18.5%   |
| Holmes       | 1      | 0.3%    |
| Indian River | 2      | 0.7%    |
| Jackson      | 2      | 0.7%    |
| Lake         | 13     | 4.5%    |
| Madison      | 1      | 0.3%    |
| Marion       | 2      | 0.7%    |
| Martin       | 1      | 0.3%    |
| Miami-Dade   | 18     | 6.2%    |
| Nassau       | 14     | 4.8%    |
| Okaloosa     | 4      | 1.4%    |
| Orange       | 42     | 14.4%   |
| Osceola      | 6      | 2.1%    |
| Palm Beach   | 32     | 11.0%   |
| Pasco        | 3      | 1.0%    |
| Pinellas     | 3      | 1.0%    |
| Polk         | 2      | 0.7%    |
| Putnam       | 1      | 0.3%    |
| Sarasota     | 7      | 2.4%    |
| Seminole     | 5      | 1.7%    |
| St. Johns    | 5      | 1.7%    |
| Volusia      | 1      | 0.3%    |
| Total        | 292    | 100.0%  |

TABLE 12: Outbreaks Reported via EpiCom by Setting as of Week 40 (Ending October 10, 2009)

| Setting                 | Number | Percent |
|-------------------------|--------|---------|
| Athletics               | 3      | 1.0%    |
| Church                  | 1      | 0.3%    |
| College/University      | 3      | 1.0%    |
| Community Center        | 5      | 1.7%    |
| Correctional Facility   | 18     | 6.2%    |
| Day Care                | 20     | 6.8%    |
| Group/Foster Home       | 2      | 0.7%    |
| Healthcare Facility     | 7      | 2.4%    |
| Home                    | 4      | 1.4%    |
| Home/School             | 1      | 0.3%    |
| Long-Term Care Facility | 4      | 1.4%    |
| Military Facility       | 3      | 1.0%    |
| Out of State Trip       | 5      | 1.7%    |
| School                  | 144    | 49.3%   |
| Special Needs Facility  | 10     | 3.4%    |
| Summer Camps            | 50     | 17.1%   |
| Work                    | 9      | 3.1%    |
| Work/Home               | 3      | 1.0%    |
| Total                   | 292    | 100.0%  |

TABLE 13: Recent Outbreaks Reported via EpiCom by Setting during Week 40 (Ending October 10, 2009)

| octing during week 40 (Enamy october 10, 2003) |        |         |  |  |  |
|--|--------|---------|--|--|--|
| Setting  | Number | Percent |  |  |  |
| School   | 21     | 87.5%   |  |  |  |
| Day Care                                       | 1      | 4.2%    |  |  |  |
| Military Facility                              | 1      | 4.2%    |  |  |  |
| Work   | 1      | 4.2%    |  |  |  |
| Total  | 24     | 100.0%  |  |  |  |