



Weeks 38-39: September 19-October 2, 2010



Summary

The Florida Department of Health (FDOH) monitors multiple surveillance systems such as the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS), notifiable disease reports (Merlin), National Respiratory and Enteric Virus Surveillance System (NREVSS), EpiCom, and Florida ILINet in order to track influenza activity in the state.

State:

- Influenza-like illness (ILI) activity is low in many of our monitoring systems. Influenza activity levels seen in ESSENCE and ILINet are similar to previous non-pandemic years at this time.
- The Bureau of Laboratories (BOL) has seen an increase in influenza test submissions and positive results in recent weeks. In week 38, three specimens tested positive for influenza A unspecified and three were positive for influenza A H3. In week 39 five specimens were positive for H3, one was positive for A unspecified, and one was positive for influenza B unspecified.
- An outbreak of ILI in an Alachua county daycare center was reported into EpiCom in week 39. 8 out of 88 attendees reported ILI, two symptomatic attendees were rapid test positive for influenza A, and one attendee was PCR-positive for influenza A H3. Investigation is ongoing.
- RSV activity has been increasing in recent weeks, which corresponds with the beginning of the normal RSV season in Florida. RSV is a virus that causes mild respiratory illness in adults and children, and more severe illness in infants and young children. No other pathogens are currently causing significant levels of influenza-like illness in Florida.

October 6, 2010

Posted on the Bureau of Epidemiology website: http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/Reports/reports.htm

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

Contributors: Colin Malone, MPH; Aaron Kite-Powell, MS; Brian Fox, MA; Kate Goodin, MPH; Leah Eisenstein, MPH; Lillian Stark, PhD, MPH, MS; Valerie Mock; Julian Everett B.S.; Brian Lang; Janet Hamilton, MPH; Richard Hopkins, MD, MSPH

In this Issue:

Summary	1
NREVSS Respiratory Virus Surveillance	1
Outpatient Influenza-like Illness Surveillance Network (ILINET)-Statewide	2
ESSENCE Syndromic Surveillance Summary-Statewide	2
Florida Pneumonia and Influenza Mortality Surveillance (FPIMSS)	2

TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 39

Measure	Difference from previous week	Current week 39	Previous week 38
Percent of visits to ILINet providers for ILI	▲ 0.2	0.9%	0.7%
Percent of emergency department visits (from ESSENCE) due to ILI	▲ 0.1	1.6%	1.5%
Percent of hospital admissions (from ESSENCE) due to ILI	No Change	0.3%	0.3%
Number of laboratory specimens that were positive for influenza (out of total number tested)	▲ 1	7 (of 43)	6 (of 47)
Number of ILI outbreaks reported in Epi Com	▼ 1	0	1
Number of Pediatric Influenza Deaths Reported	No Change	0	0

NREVSS Respiratory Virus Surveillance

The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratory facilities around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of respiratory syncytial virus (RSV), human parainfluenza viruses (HPIV), respiratory and enteric adenoviruses and rotavirus. Florida has over 45 participating laboratory facilities.

FIGURE 1 shows the percentage of positive tests for multiple respiratory viruses reported by NREVSS-participating laboratories in Florida

The six respiratory viruses summarized in Figure 1 are:

- RSV
- Parainfluenza 1-3 (HPIV)
- Adenovirus
- Human Metapneumo Virus
- Rhinovirus
- Influenza

Figure 1: Percentage of Positive Respiratory Virus Tests as Collected by NREVSS, Florida, 2008-2010, as of October 5, 2010

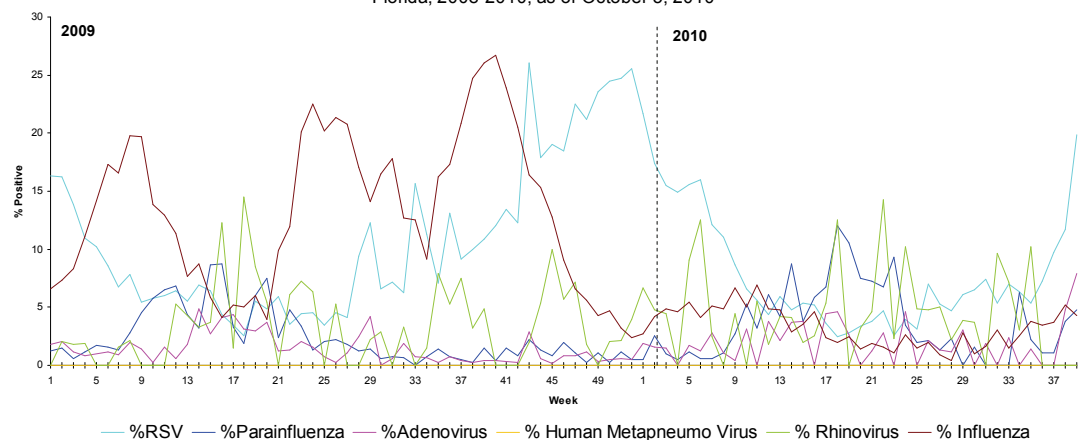
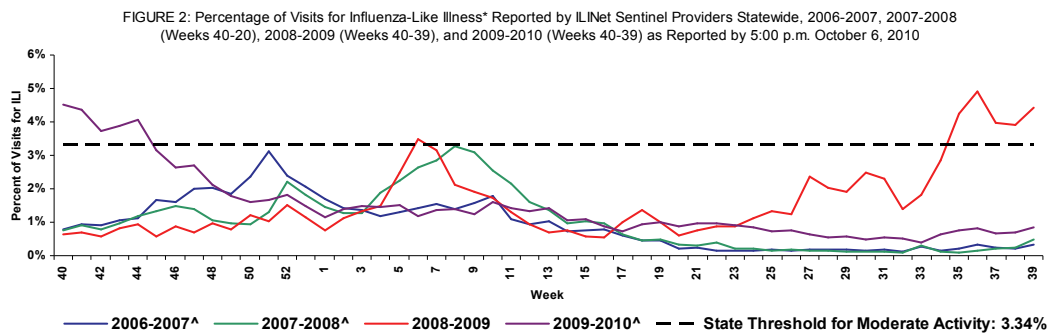


FIGURE 2 shows the percentage of visits for influenza-like illness* reported by ILINet Sentinel Providers statewide.

Percentage of visits for ILINet Sentinel providers continue to be at low levels.

Note: Small numbers of sentinels reporting year-round may make summer ILI estimates inaccurate.



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

**The 2009—2010 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.

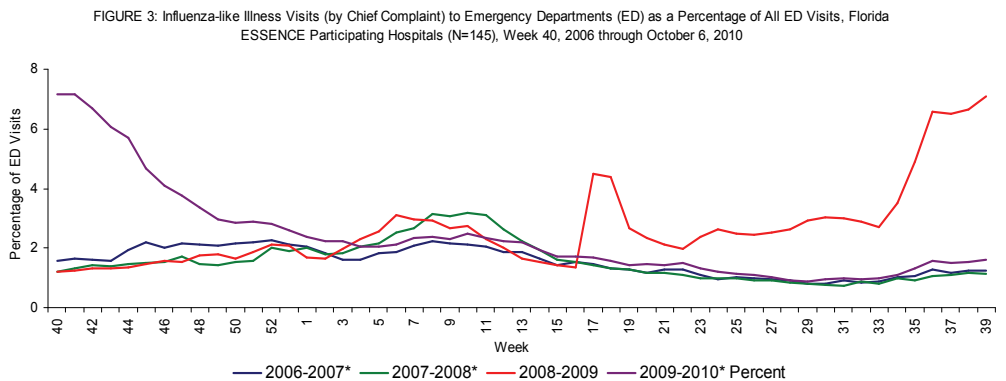
^There is no week 53 during the 2006-2007, 2007-2008, and 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

ESSENCE Syndromic Surveillance Summary-Statewide

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) currently collects data daily from 145 hospital emergency departments (ED). Data are processed into 11 different syndrome categories based on the patient's chief complaint. One category is influenza-like illness (ILI), which comprises chief complaints that include "influenza" or "flu," or either fever and cough or sore throat.

FIGURE 3 shows ESSENCE data on ILI visits to Emergency Departments as a percentage of all ED Visits.

Overall activity for influenza-like illness reported in ESSENCE is near expected levels for this time of year.



Florida Pneumonia and Influenza Mortality Surveillance

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. We are now using a Serfling model to more accurately calculate our predicted values for weekly pneumonia and influenza mortality.

FIGURE 4 shows Pneumonia and Influenza Deaths for 24 Florida Counties, 2006-2007, 2007-2008, 2008-2009, and 2009-2010

For week 39 (ending October 2, 2010) there were:

- 100 deaths reported
- Upper bound of 95% confidence interval for prediction: 152 deaths
- NO excess deaths

22 out of 24 participating counties reported their data for week 39.

