



Week 37: September 9 – September 15, 2012



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), EpiCom, and Florida ILINet in order to track influenza activity in the state.

National:

Since July, 2012, 306 people in 10 states have been infected with a variant strain of influenza A H3N2, also known as H3N2v. The H3N2v strain originates from influenza that circulates in pigs. Nearly all persons infected with H3N2v have reported direct or indirect contact with swine. Most cases have occurred in children; one death has been reported in an adult with underlying health conditions. **No cases of H3N2v infection have been reported in Florida.** More information can be found at: <http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm>

State:

After experiencing elevated influenza-like illness (ILI) levels statewide during the summer months, ESSENCE emergency department ILI levels have increased in recent weeks. The sharpest increases in ESSENCE ILI have been seen in the Panhandle and Northeastern regions of Florida. One county reported moderate influenza activity in week 37. Three specimens tested PCR-positive for influenza B at the state lab. In recent weeks, influenza B has been the most common influenza subtype identified by the state lab.

September 19, 2012

Posted on the Bureau of Epidemiology website: <http://www.doh.state.fl.us/floridaflu/>

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TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 37

| Measure | Difference from previous week | Current week 37 | Previous week 36 | Page of report |
|--|-------------------------------|-----------------|------------------|----------------|
| Percent of visits to ILINet providers for ILI | ▲ 0.1 | 1.1% | 1.0% | 2 |
| Number of ILI outbreaks reported in EpiCom | No Change | 0 | 0 | 2 |
| Number of counties reporting moderate or widespread influenza activity | ▼ 1 | 1 | 2 | 2 |
| Percent of emergency department visits (from ESSENCE) due to ILI | ▲ 0.2 | 2.0% | 1.8% | 3 |
| Number of laboratory specimens that were positive for influenza out of total submissions | ▲ 2 | 3/27 | 1/17 | 5 |

NREVSS Respiratory Virus Surveillance

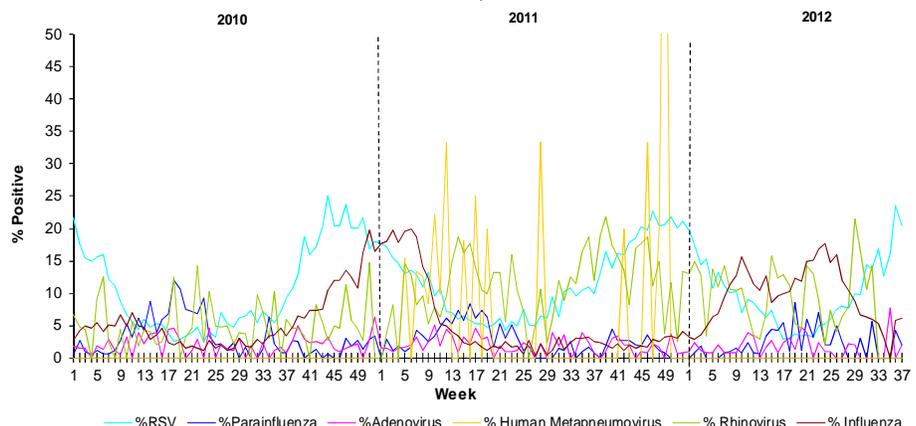
The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratories around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of six common respiratory viruses. Eighteen facilities reported in week 37.

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

The 6 respiratory viruses summarized in Figure 1 are:

- Respiratory Syncytial Virus (RSV)
- Parainfluenza 1-3
- Adenovirus
- Human Metapneumovirus (HMPV)
- Rhinovirus
- Influenza

FIGURE 1: Percentage of Positive Respiratory Virus Tests as Collected by NREVSS, Florida, 2010-2012, as of September 18, 2012



—%RSV —%Parainfluenza —%Adenovirus —% Human Metapneumovirus —% Rhinovirus —% Influenza

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 submitting ILI specimens to the Bureau of Public Health laboratories (BPHL) for confirmatory testing.

FIGURE 2 shows the percentage of visits for ILI* reported by ILINet Sentinel Providers statewide.

ILI percent positive remains low and similar to other non-pandemic seasons at this time. **ILINet provider reporting declines in the summer months. Figures will be updated as new data are received.**

54 of 110 ILINet Sentinels reported visit counts as of 10:00 a.m., September 19, 2012.

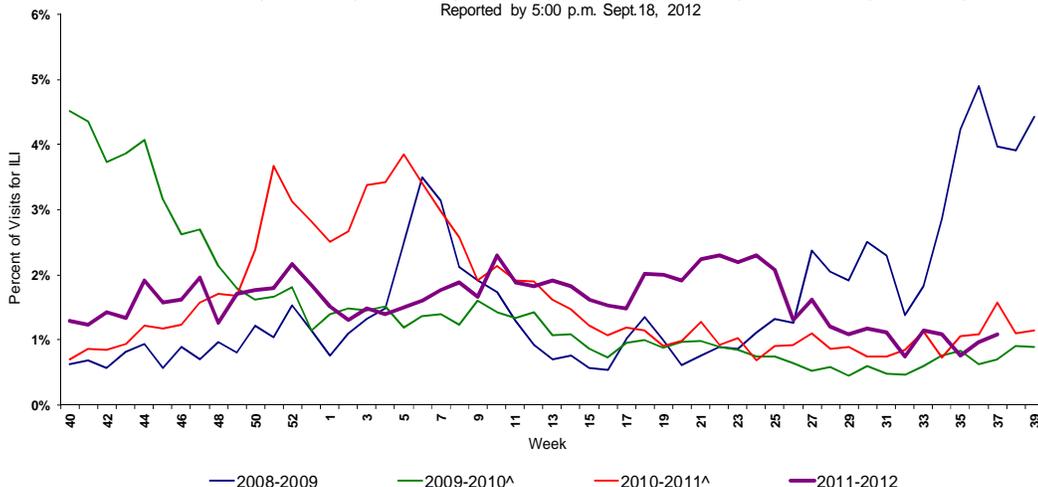
11 of 15 ILINet Super-Sentinels reported visit counts as of 10:00 a.m., September 19, 2012.

Note: In response to several states' identifying recent infections due to H3N2v, FDOH is enhancing virologic surveillance. ILI Sentinel Providers have been advised to submit more specimens to BPHL from children under age 18. BPHL is able to detect presumptive positives for both seasonal and novel influenza viruses through routine testing. **No cases of variant H3N2 influenza A have been reported in Florida.** Detailed guidance documents have been sent to sentinel sites and county health departments.

FIGURE 3 shows ILI visit counts reported by ILINet sentinel providers statewide by age group.

In week 37, ILI visit counts increased in the 0-24 age group. ILI visits decreased in the 25-64 age group and are flat in the 65+ age groups.

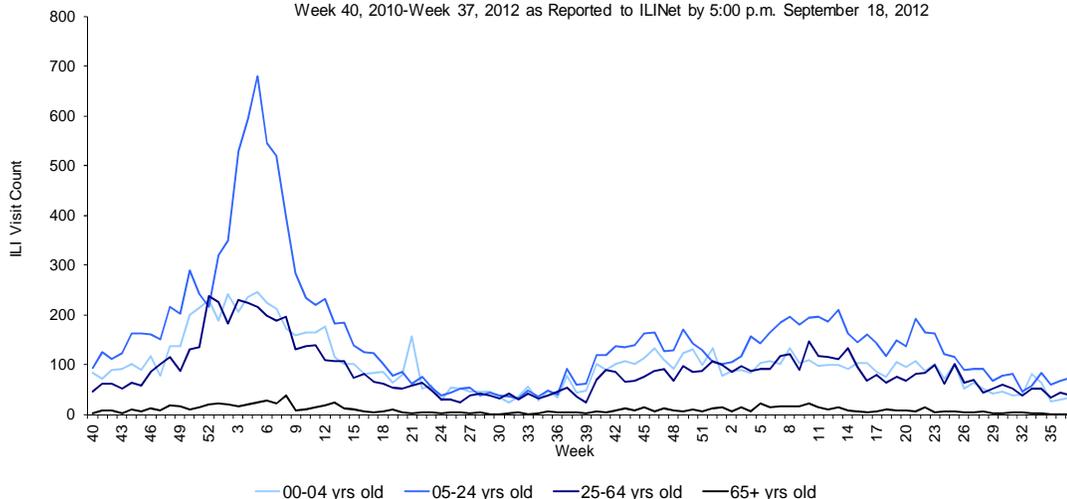
FIGURE 2: Percentage of Visits for Influenza-Like Illness (ILI)* Reported by ILINet Sentinel Providers Statewide, 2008-2009 (Weeks 40-39), 2009-2010 (Weeks 40-39), 2010-2011 (Week 40-39), and 2011-2012 (Weeks 40-37) Reported by 5:00 p.m. Sept.18, 2012



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

^There is no week 53 during the 2009-2010, 2010-2011, and 2011-12 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

FIGURE 3: Influenza-like Illness (ILI) Visit Counts Reported by ILINet Sentinel Providers Statewide by Age Group Week 40, 2010-Week 37, 2012 as Reported to ILINet by 5:00 p.m. September 18, 2012



†Data presented here are counts, not proportions as included in Figure 2. This is because age group denominator data is not available through ILINet.

Influenza and ILI Outbreaks

In week 37, there were **no** influenza or ILI outbreaks reported via EpiCom.

Eight influenza or ILI outbreaks have been reported via EpiCom in summer 2012.

County Influenza Activity

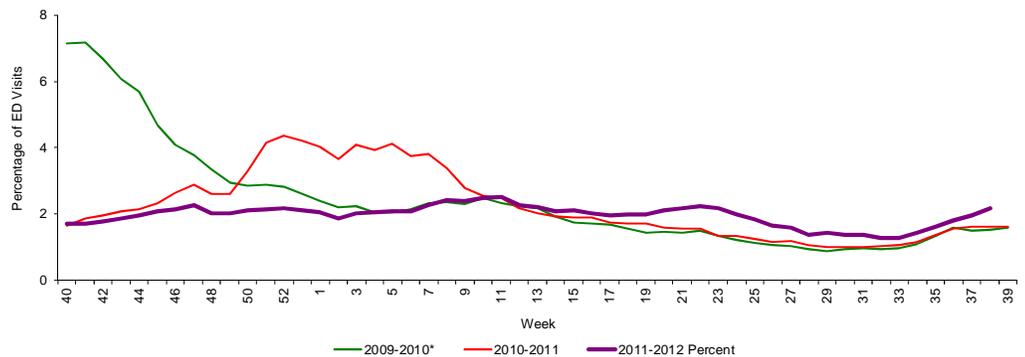
As of 10:00 a.m. September 19, 2012 a total of 25 (37%) counties had reported their weekly level of influenza activity. Levy County reported moderate activity; the other 24 counties reported mild or no activity. During the summer months, counties have the option of continuing to report influenza activity. *Please note that data reported by counties after the deadline Tuesday at 5:00 p.m. are recorded but may not be included in the activity map for previous weeks.*

Florida uses ESSENCE for syndromic surveillance, which currently collects data daily from 174 hospital emergency departments (ED). 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 and/or sore throat.

FIGURE 4 shows ESSENCE data on ILI visits to EDs as a percentage of all ED Visits.

Overall activity for ILI reported in ESSENCE is elevated compared to levels seen in previous non-pandemic seasons at this time.

FIGURE 4: Influenza-Like Illness Visits (by Chief Complaint) to Emergency Departments (ED) as a Percentage of All ED Visits, Florida ESSENCE Participating Hospitals (N=174), Week 40, 2008 through September 18, 2012

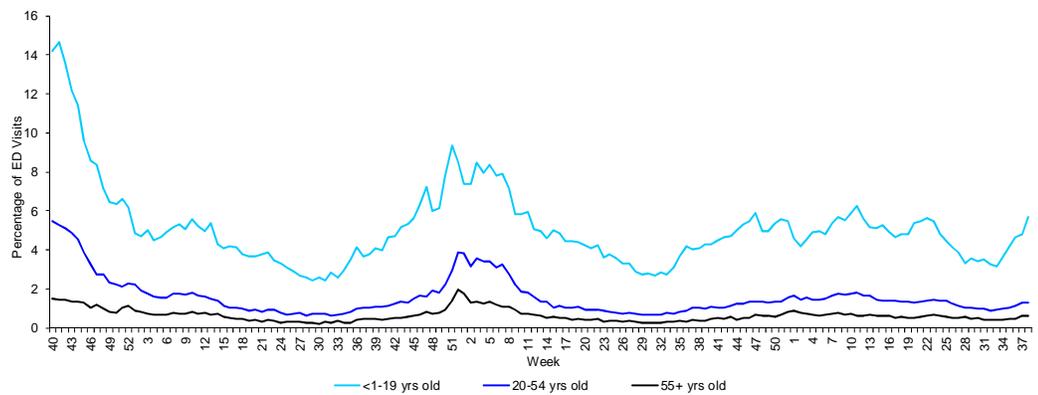


*There is no week 53 for the 2007-2008, 2009-2010, and 2010-2011 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

FIGURE 5 shows percentage of ILI among all ED visits by age group.

Age-specific trends show that percent ILI in the 0-19 age group is increasing and that percent ILI in the 20-55+ age groups is flat in week 37.

FIGURE 5: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints by Age, Florida ESSENCE Participating Hospitals (N=174), Week 40, 2008 through September 18, 2012



One hundred five ESSENCE participating facilities are able to provide discharge disposition data for their ED visits going back to week 40, 2010. Using this information, the percent of ED visits for ILI that result in hospitalization can be calculated. The highest percentage of admissions is in the 55+ years old age group. The low number of visits in the 55+ age group causes variability in the ILI admission percentage from week to week.

FIGURE 6 shows the percentage of ED visits for ILI that resulted in hospitalization, by age group.

FIGURE 6: Percentage of ED Visits for ILI Resulting in Hospital Admission, Hospitals Reporting Discharge Disposition (N=105), Week 40, 2010 to Week 37, 2012

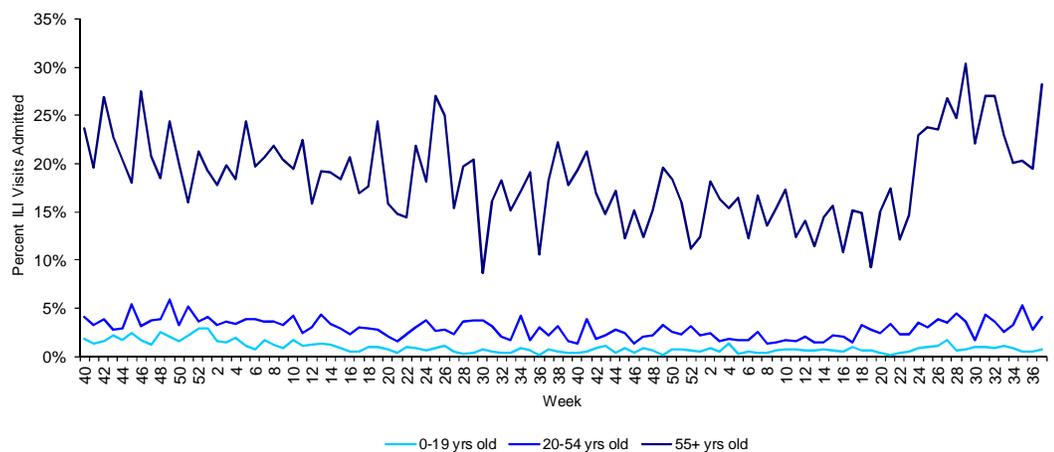


FIGURE 7 - FIGURE 13 describe ED chief complaint data from ESSENCE by Regional Domestic Security Task Force (RDSTF) region.

ILI activity in ESSENCE is elevated over previous years at this time in Regions 2, 3, and 5.

Map 1: Hospitals Reporting Emergency Department (ED) Data to Florida ESSENCE, September 19, 2012 (N=174)

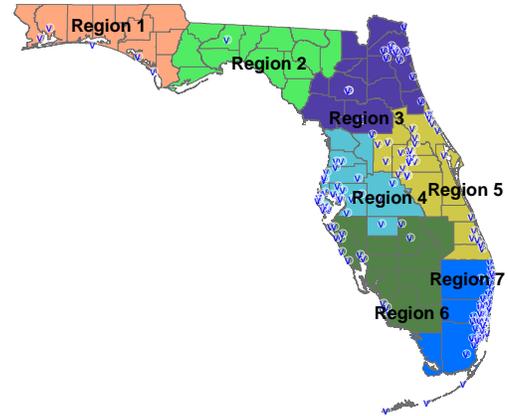


FIGURE 7: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=5), Week 40, 2008 through September 18, 2012

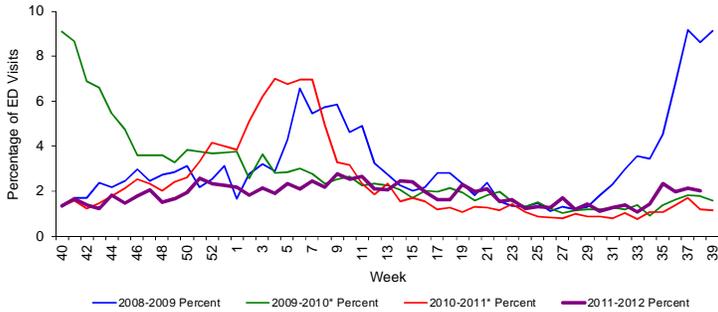


FIGURE 8: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 2 ESSENCE Participating Hospitals (N=2), Week 40, 2008 through September 18, 2012

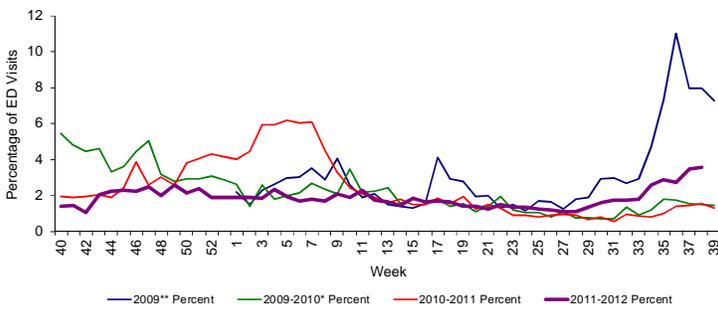


FIGURE 9: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2008 through September 18, 2012

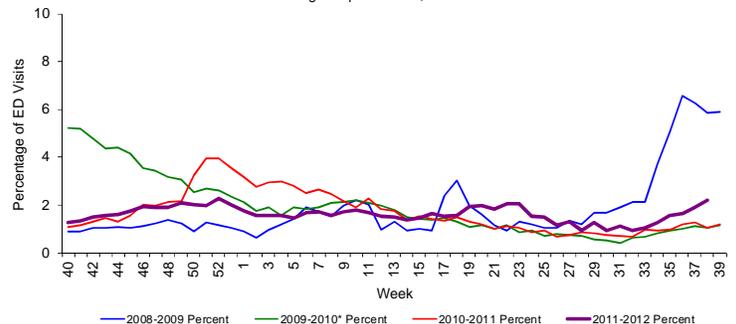


FIGURE 10: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=31), Week 40, 2008 through September 18, 2012

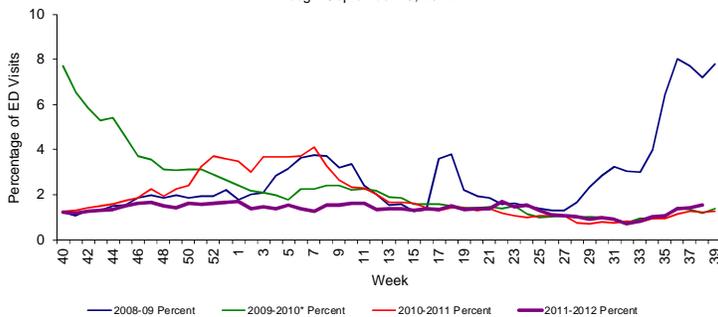


FIGURE 11: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=49), Week 40, 2008 through September 18, 2012

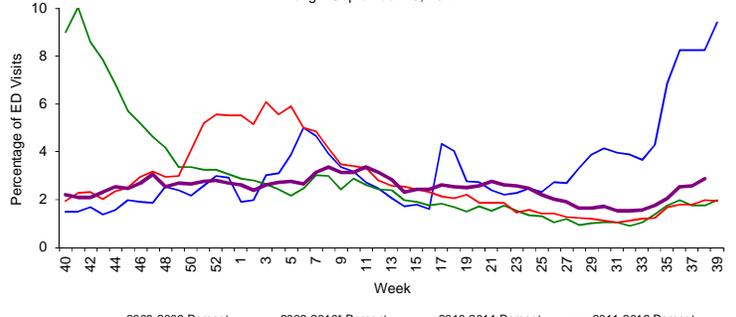


FIGURE 12: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2008 through September 18, 2012

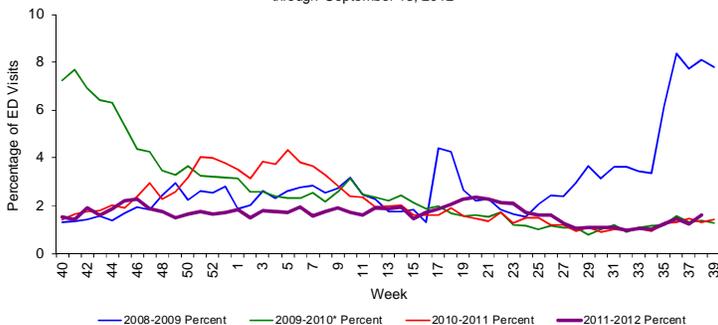


FIGURE 13: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=48), Week 40, 2008 through September 18, 2012

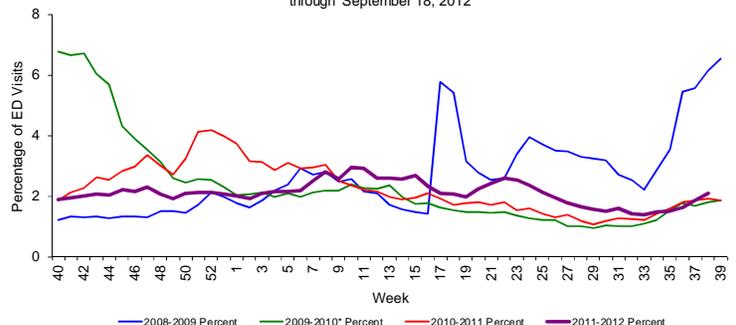


TABLE 2 shows the number of specimens tested by the BPHL, how many are influenza positive, and how many are H1N1 or other influenza subtypes.

FIGURE 14 - FIGURE 15 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 found for the positive.

Small numbers of influenza specimens submitted to BPHL tested positive for influenza A H3, 2009 H1N1, and influenza B.

Influenza B has been the most common strain detected by BPHL in recent weeks.

Table 2: Bureau of Public Health Laboratories Viral Surveillance for Week 37 by Lab Event Date* as reported by 10:00 a.m. September 19, 2012

| | Current Week 37 | Previous Week 36 |
|--|-----------------|------------------|
| Total Specimens Tested | 27 | 17 |
| Influenza Positive Specimens (% of total) | 3 (11.1%) | 1 (5.9%) |
| H1N1 Positive Specimens (% of influenza positives) | - | - |
| H3 Influenza A (% of influenza positives) | - | - |
| Influenza A Unspecified (% of influenza positives) | - | - |
| Influenza B Unspecified (% of influenza positives) | 3 (100.0%) | 1 (100.0%) |

FIGURE 14: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Public Health Laboratories (BPHL) by Subtype by Lab Event Date* Week 1, 2011 to Week 37, 2012 as Reported in Merlin by 10:00 a.m. September 19, 2012

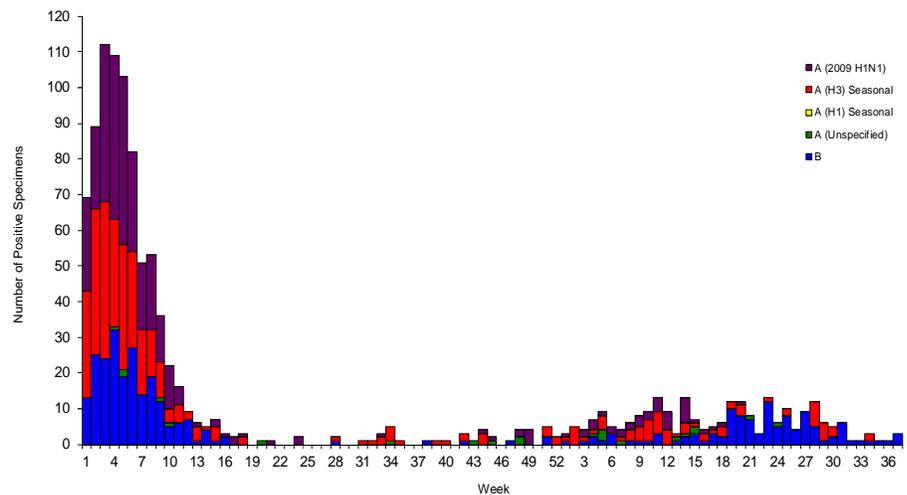
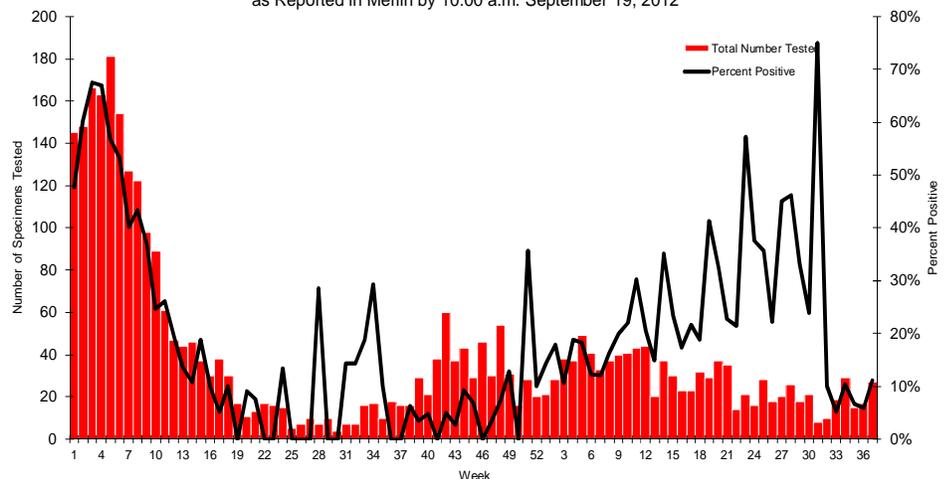


FIGURE 15: Number of Specimens Tested by Florida Bureau of Public Health Laboratories (BPHL) and Percent Positive for Influenza by Lab Event Date* Week 1, 2011 to Week 37, 2012 as Reported in Merlin by 10:00 a.m. September 19, 2012



*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.

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: http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/FluLabReportGuide.pdf