



Week 40: October 2-8, 2011



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:

- The Centers for Disease Control and Prevention will release their first nationwide influenza report on Friday, October 14. Available data show influenza at low levels nationwide.

State:

- ILI activity is low in many of our monitoring systems. One county currently reports moderate influenza activity. Ten counties report increasing influenza activity, and 1 county reports decreasing activity.
- ESSENCE and ILINet ILI activity levels are near previous non-pandemic seasons at this time in most regions of Florida.
- In week 40 there were no positive flu results from the Bureau of Laboratories. In recent weeks, the number of specimens submitted and the percent positive for influenza have been low. Other viruses known to be currently circulating, potentially causing ILI, include adenovirus, rhinovirus, parainfluenza, and respiratory syncytial virus (RSV).
- No outbreaks of ILI or influenza were reported in week 40.
- **This is the first expanded edition of the Florida Flu Review for the 2011-12 influenza surveillance season. Florida Flu Review will be published weekly through May 2011.**

Weekly state influenza activity: Sporadic

Florida is currently reporting Sporadic influenza activity statewide, due to low activity levels in all regions of Florida as shown in our influenza surveillance systems. This activity level represents the statewide spread of influenza, and is not a measure of flu intensity.

Pediatric influenza Mortality

No pediatric influenza mortalities were reported in week 40. There have been no influenza-associated pediatric mortalities-associated deaths among those less than 18 years old are reportable in Florida.

October 12, 2011

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

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

Contributors: Colin Malone, MPH; Brian Lang; Aaron Kite-Powell, MS; Leah Eisenstein, MPH; Lillian Stark, PhD, MPH, MS; Valerie Mock; Janet Hamilton, MPH; Richard Hopkins, MD, MSPH

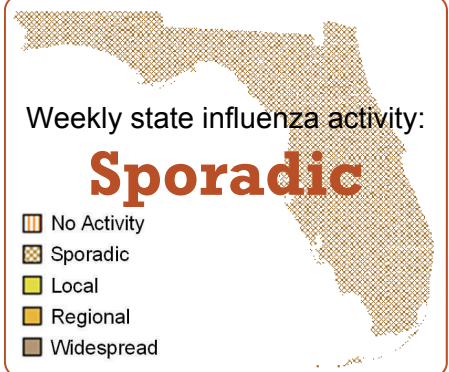


TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 40

Measure	Difference from previous week	Current week 40	Previous week 39	Page of Report
Overall statewide activity code reported to CDC	-	Sporadic	-	1
Percent of visits to ILINet providers for ILI	▼ 0.2	1.0%	1.2%	2
Percent of emergency department visits (from ESSENCE) due to ILI	No Change	1.7%	1.7%	3
Percent of hospital admissions (from ESSENCE) due to ILI	▲ 0.1	0.5%	0.4%	3
Percent of laboratory specimens that were positive for influenza	▼ 3.6	0.0%	3.6%	5
Number of counties reporting moderate influenza activity	-	1	-	6
Number of counties reporting widespread influenza activity	-	0	-	6
Number of counties reporting increasing influenza activity	-	10	-	7
Number of counties reporting decreasing influenza activity	-	1	-	7
Number of ILI outbreaks reported in Epi Com	No Change	0	0	10

In this Issue:

Summary	1
Outpatient Influenza-like Illness Surveillance Network (ILINET)-Statewide	2
ESSENCE Syndromic Surveillance Summary-Statewide	3
ESSENCE Syndromic Surveillance Summary-Regional	4
Florida Bureau of Laboratories Viral Surveillance	5
County Influenza Activity Map	6
County Influenza Activity Trend	7
Florida Pneumonia and Influenza Mortality Surveillance (FPIMSS)	9
NREVSS Respiratory Virus Surveillance	10
Influenza and ILI outbreaks reported in EpiCom	10
Pediatric Influenza-Associated Mortality	10

ILINet is a nationwide surveillance system composed of sentinel providers. Florida has 112 providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submitting ILI specimens to the BOL for confirmatory testing. For this season, BOE has designated 16 of these ILINet physicians' offices as Super-Sentinels. These Super-Sentinels will receive more active follow-up from BOE and participating county health departments, with the goal of increasing data quality and surveillance specimen submission. Complete lab and visit data from Florida ILINet Super-Sentinels will be presented in the Florida Flu Review in future weeks.

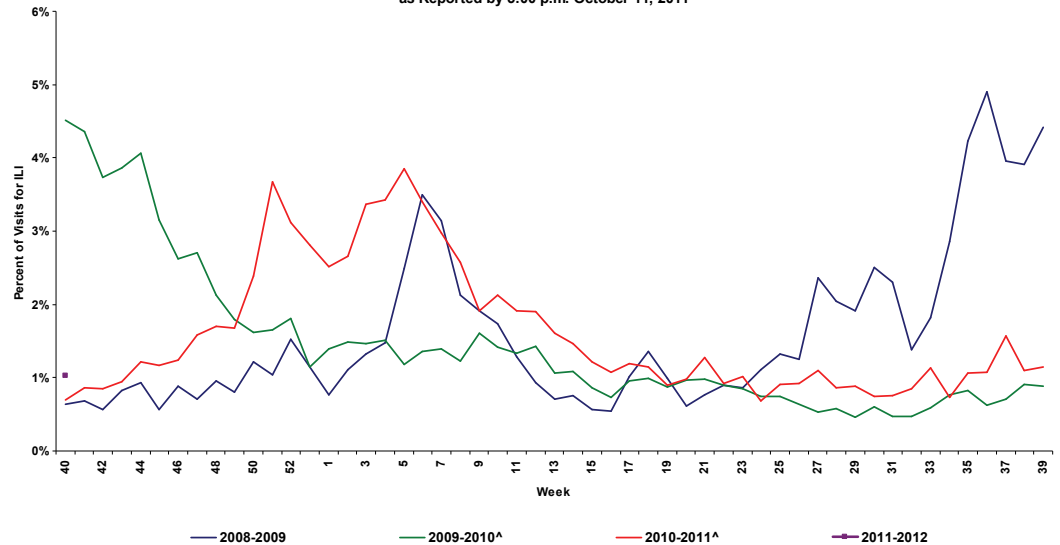
FIGURE 1 shows the percentage of visits for ILI* reported by ILINet Sentinel Providers statewide.

ILI activity is well below the moderate threshold and at levels near previous non-pandemic influenza seasons at this time.

64 of 112 ILINet Sentinels have reported visit counts as of 5:00 p.m., October 11, 2011.

9 of 16 ILINet Super-Sentinels have reported visit counts as of 5:00 p.m., October 11, 2011.

FIGURE 1: Percentage of Visits for Influenza-Like Illness* Reported by ILINet Sentinel Providers Statewide, 2008-2009 (Weeks 40-39), 2009-2010 (Weeks 40-39), 2010-2011 (Week 40-39), and 2011-2012 Week 40 as Reported by 5:00 p.m. October 11, 2011

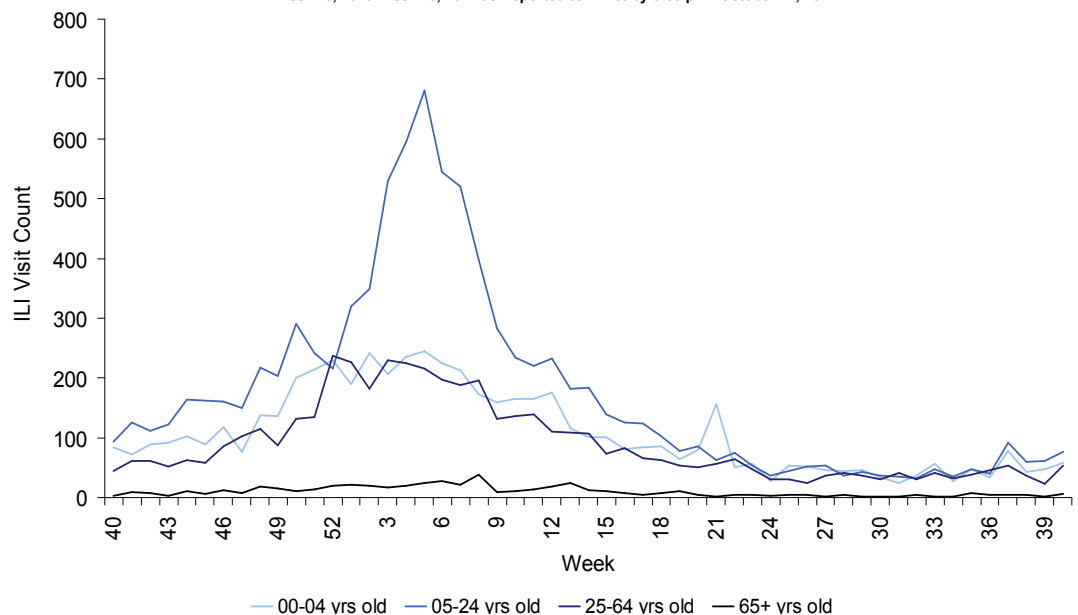


*ILI = Influenza-like illness, fever >100°F AND sore throat and/or cough *in the absence* of another known cause.
 ^There is no week 53 during the 2009-2010, 2010-2011, and 2011-12 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

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

ILI visit counts are at low levels in all age groups

FIGURE 2: Influenza-like Illness (ILI) Visit Counts Reported by ILINet Sentinel Providers Statewide by Age Group Week 40, 2010-Week 40, 2011 as Reported to ILINet by 5:00 p.m. October 11, 2011

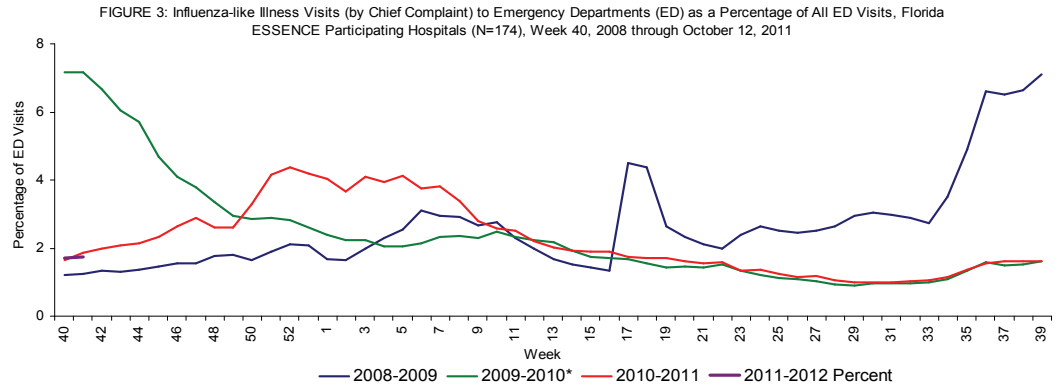


†Data presented here are counts, not proportions as included in Figure 2. This is because age group denominator data is not available through ILINet.

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 either fever and cough or sore throat.

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

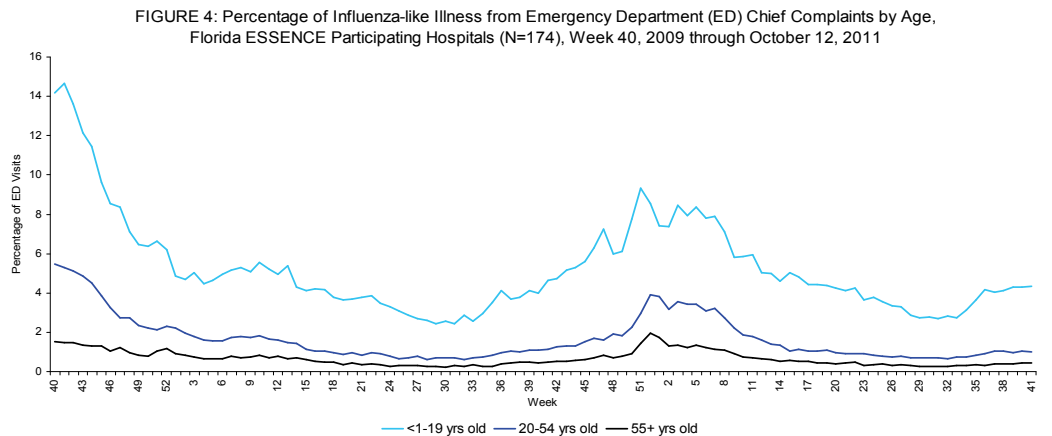
Overall activity for influenza-like illness reported in ESSENCE is similar to levels seen during the same time period in non-pandemic years.



*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 4 shows percentage of ILI among all ED visits by age group.

Age-specific trends show that ILI activity is declining in all age groups.



Ninety-five 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. 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.

FIGURE 5 shows hospital admissions due to ILI as a percentage of all hospital admissions..

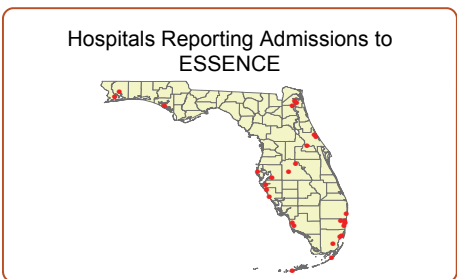


FIGURE 13: Percentage Admitted to Hospital for Influenza-Like Illness (ILI) Among All Persons Admitted in the Hospital through the ED Based on ED Chief Complaint, Hospitals Reporting Admissions Data (N=95) for Week 40, 2009 to October 12, 2011

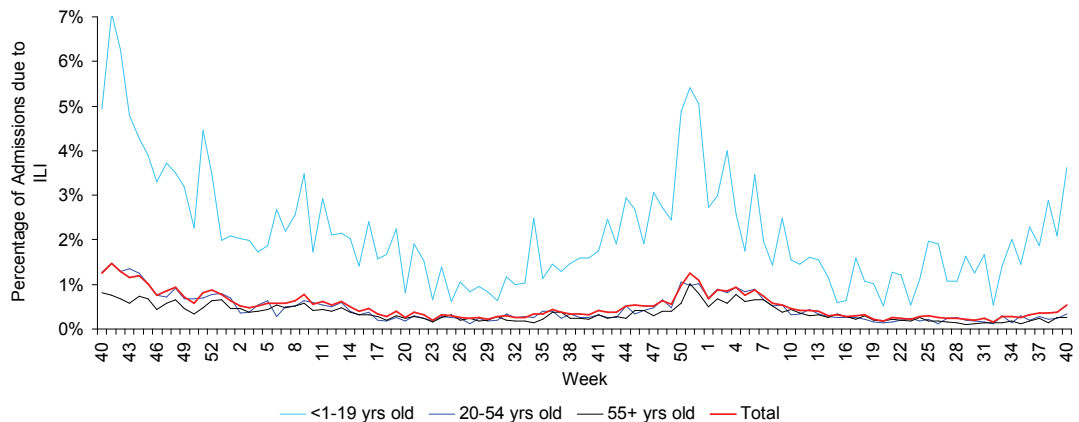


FIGURE 6 - FIGURE 12 describe ED chief complaint data from ESSENCE by Regional Domestic Security Task Force (RDSTF).

ILI activity in ESSENCE is at low levels in all RDSTF regions, and ILI is at levels similar to those seen in previous non-pandemic influenza seasons at this time.

Map 2: Hospitals Reporting Emergency Department (ED) Data to Florida ESSENCE, October 12, 2011 (N=174)

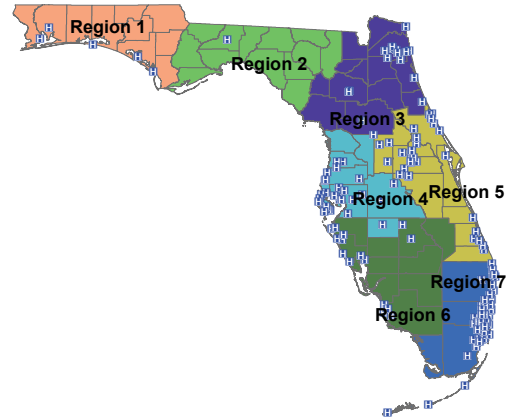


FIGURE 6: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=5), Week 40, 2008 through October 12, 2011

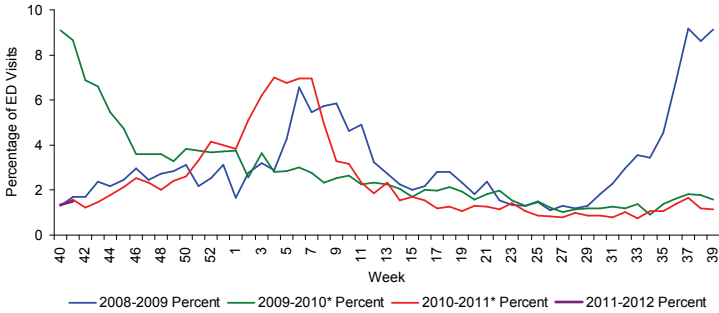


FIGURE 7: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 2 ESSENCE Participating Hospitals (N=1), Week 1, 2009 through October 12, 2011

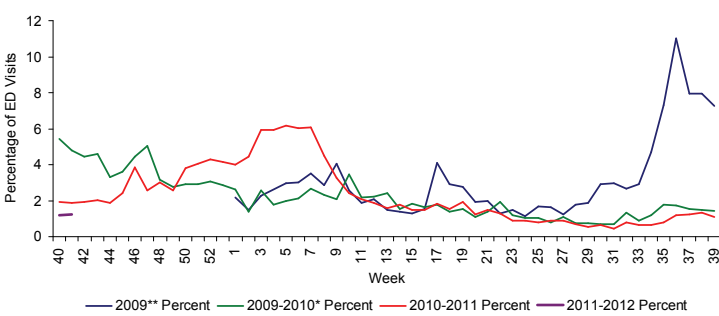


FIGURE 8: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2008 through October 12, 2011

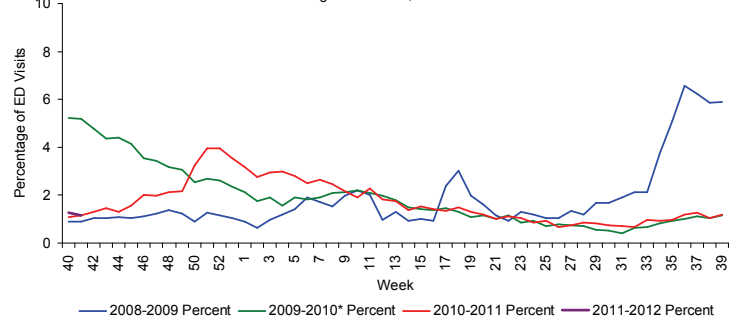


FIGURE 9: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=31), Week 40, 2008 through October 12, 2011

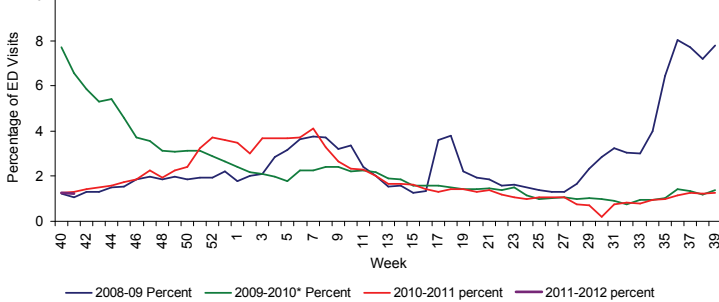


FIGURE 10: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=49), Week 40, 2008 through October 12, 2011

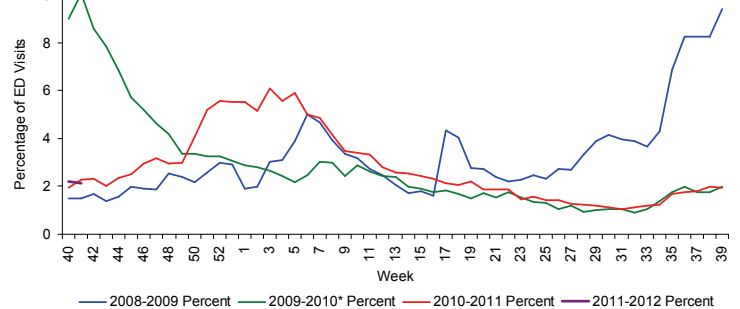


FIGURE 11: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2008 through October 12, 2011

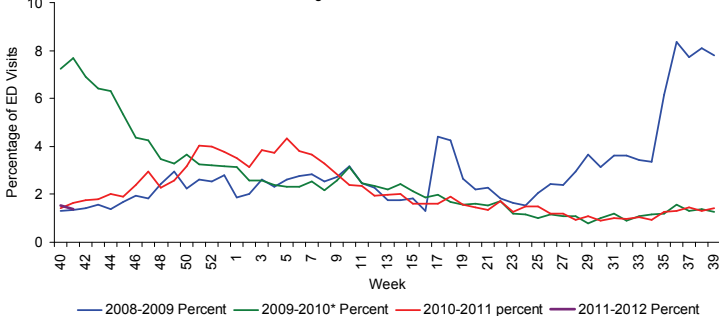


FIGURE 12: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=48), Week 40, 2008 through October 12, 2011

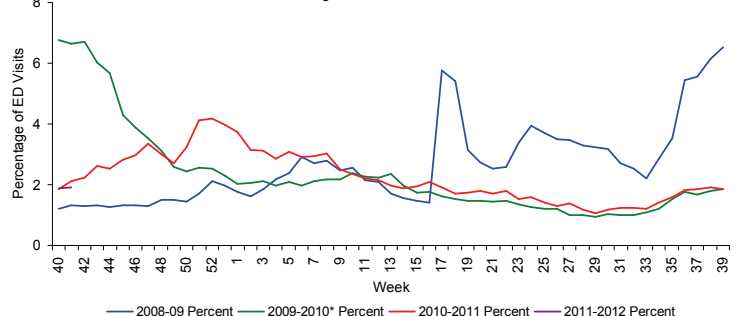


Table 2 shows the number of specimens tested by the Bureau of Laboratories (BOL), how many are influenza positive, and how many are H1N1 or other influenza subtypes.

FIGURE 13 - FIGURE 14 use BOL viral surveillance data to track the progress of influenza infection over time. They include weekly information on how many specimens are tested by the BOL, what proportion of those test positive for influenza, and what subtypes are found for the positive influenza specimens.

In the summer months, small numbers of influenza specimens submitted to BOL tested positive. Specimens tested positive for influenza A H3, 2009 H1N1, and influenza B.

No one strain of influenza is currently predominant in Florida.

Table 2: Bureau of Laboratories Viral Surveillance for Week 40 by Lab Event Date* as reported by 1:00 p.m. October 12, 2011

	Current Week 40	Previous Week 39
Total Specimens Tested	17	27
Influenza Positive Specimens (% of total)	0 (0.0%)	1 (3.57%)
H1N1 Positive Specimens (% of influenza positives)	-	-
H3 Influenza A	-	1 (100.0%)
Influenza A Unspecified	-	-
Influenza B Unspecified	-	-

FIGURE 13: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Laboratories (BOL) by Subtype by Lab Event Date* Week 1, 2010 to Week 40, 2011 as Reported in Merlin by 1:00 p.m. October 12, 2011

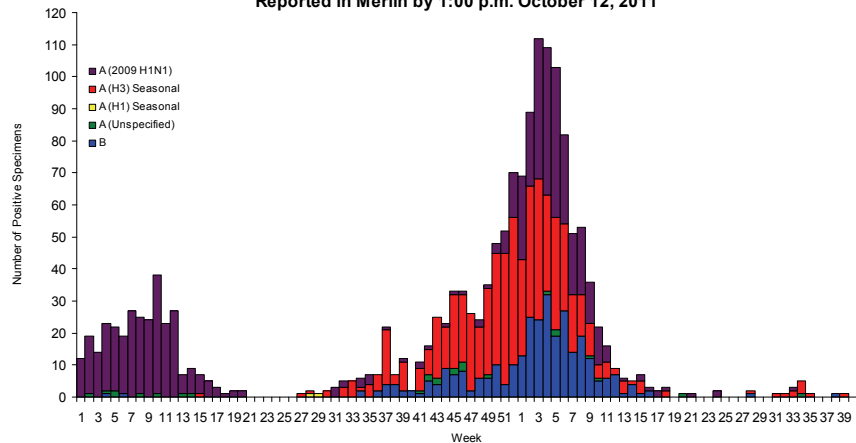
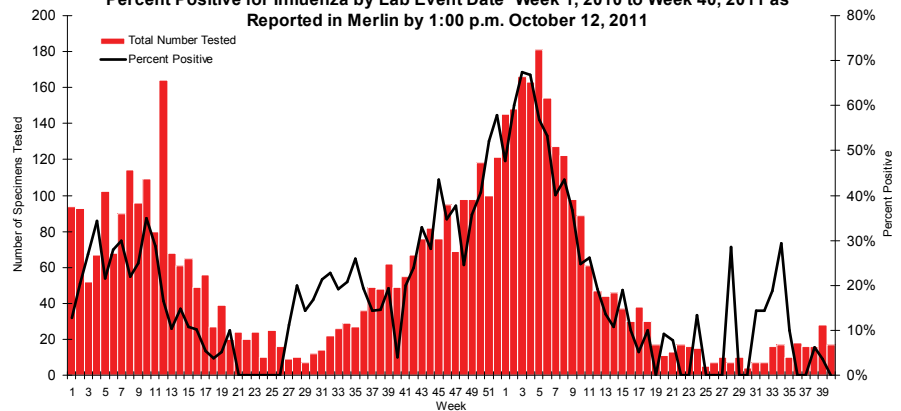


FIGURE 14: Number of Specimens Tested by Florida Bureau of Laboratories (BOL) and Percent Positive for Influenza by Lab Event Date* Week 1, 2010 to Week 40, 2011 as Reported in Merlin by 1:00 p.m. October 12, 2011



*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.

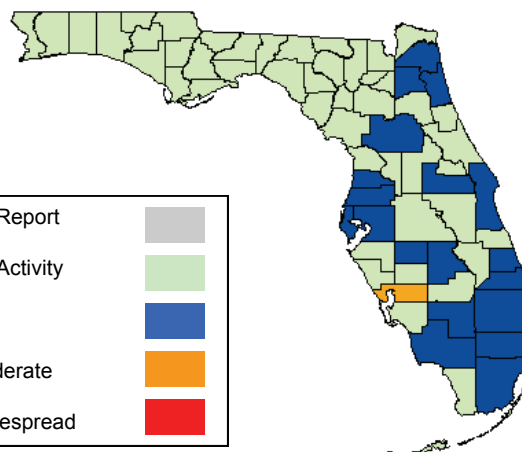
For instructions on how to use the Flu Lab Report, please see the Guide to Flu Lab Report on the Bureau of Epidemiology website: http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/FluLabReportGuide.pdf

As of 2:00 p.m. October 12, 2011 a total of 67 (100%) counties had reported their weekly level of influenza activity. We have achieved 100% reporting for the this week due to enhanced follow-up with counties. *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 8, 2011) as Reported by 2:00 p.m. October 12, 2011

Activity Level	Week 39 Number of Counties	Week 40 Number of Counties	Week 40 Counties
No Report	-	0	-
No Activity	-	47	Alachua, Baker, Bay, Bradford, Calhoun, citrus, Columbia, Desoto, Dixie, Escambia, Flagler, Franklin, Gadsden, Gilchrist, Glades, Gulf, Hamilton, Holmes, Indian River, Jackson, Jefferson, Lafayette, Lake, Lee, Leon, Levy, Liberty, Madison, Manatee, Monroe, Nassau, Okaloosa, Okeechobee, Osceola, Polk, Putnam, Santa Rosa, Sarasota, Seminole, Sumter, Suwannee, Taylor, Union, Volusia, Wakulla, Walton, Washington
Mild	-	19	Brevard, Broward, Clay, Collier, Dade, Duval, Hardee, Hendry, Hernando, Highlands, Hillsborough, Marion, Martin, Orange, Palm Beach, Pasco, Pinellas, St. Johns, St. Lucie
Moderate	-	1	Charlotte
Widespread	-	0	-

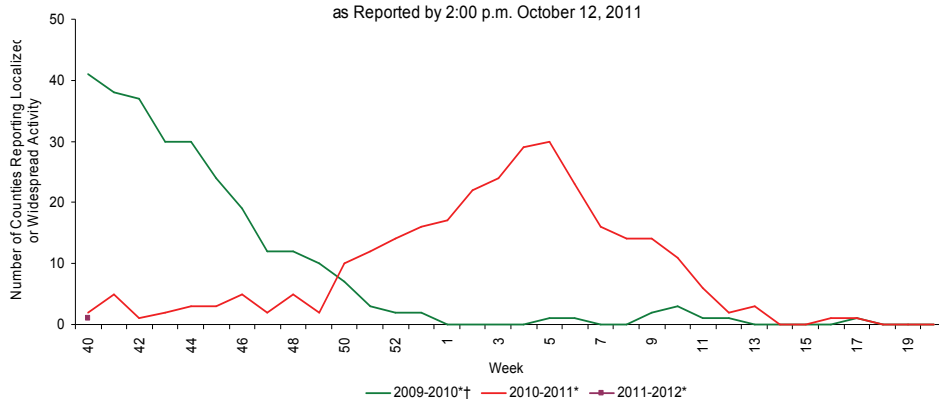
Map 2: Weekly County Influenza Activity for Week 40 as Reported by 2:00 p.m. October 12, 2011



One county reports moderate activity.

FIGURE 15 shows the number of counties reporting localized or widespread activity, 2008-2009, 2009-2010, and 2010-2011.

FIGURE 15: Number of Counties Reporting Moderate (Localized) or Widespread Activity, 2009-2010 (Weeks 40-20), 2010-2011 (Weeks 40-20), and 2011-2012 Week 40 as Reported by 2:00 p.m. October 12, 2011



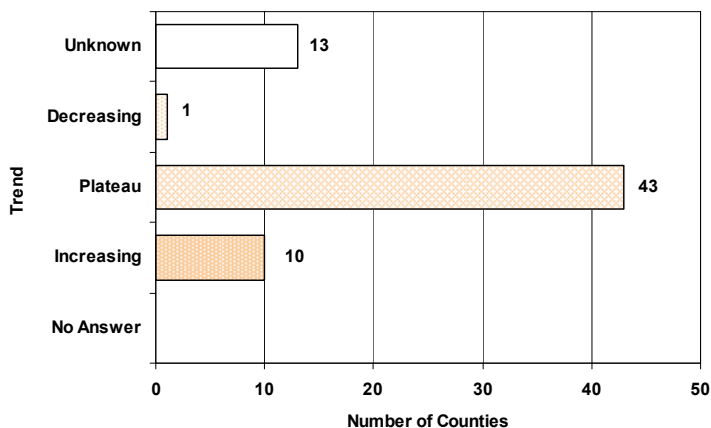
* There is no week 53 during the 2007-2008, 2009-2010, and 2010-2011 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

† As of Week 40 2010, the influenza activity code categorizations have changed. Please see http://www.doh.state.fl.us/disease_ctr/epi/FluActivityDef.htm for explanations of previous year activity code interpretations.

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 24-33 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, 43 indicated it was about the same as previous weeks, and 10 indicated that activity was increasing.

FIGURE 16 shows the assessment of the overall influenza activity trend in each county as reported by county health department flu coordinators for week 40 as of 2:00 p.m. October 12, 2011.

FIGURE 16: Assessment of Overall Influenza Activity Trend



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 17 - FIGURE 18 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 40 as of 2:00 p.m. October 12, 2011.

FIGURE 17: Assessment of Influenza Activity in Elementary, Middle, and High Schools

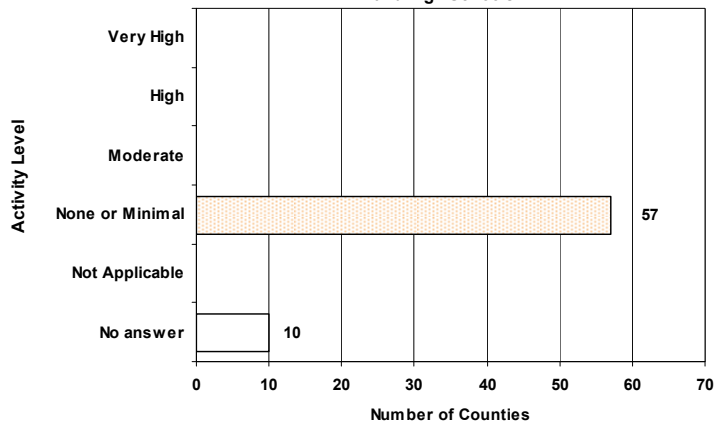


FIGURE 18: Assessment of Influenza Activity in Colleges and Universities

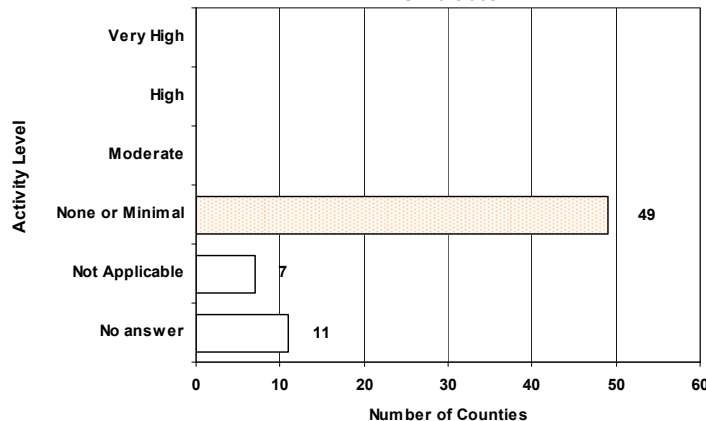


FIGURE 19 - FIGURE 25 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 40 as of 2:00 p.m. October 12, 2011.

FIGURE 19: Assessment of Influenza Activity in Jails/Prisons

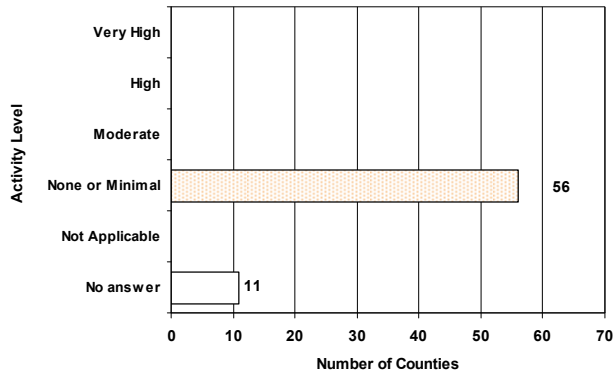


FIGURE 20: Assessment of Influenza Activity in Retirement Facilities

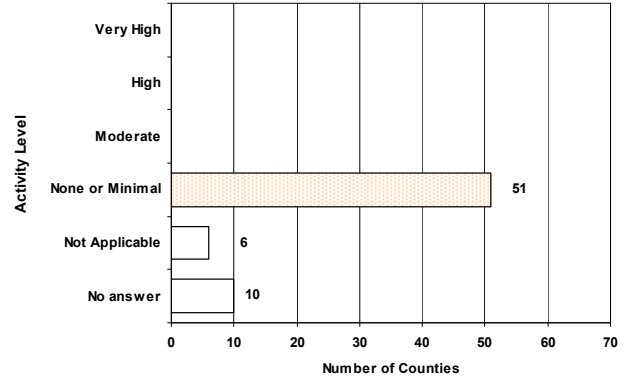


FIGURE 21: Assessment of Influenza Activity in Nursing Homes

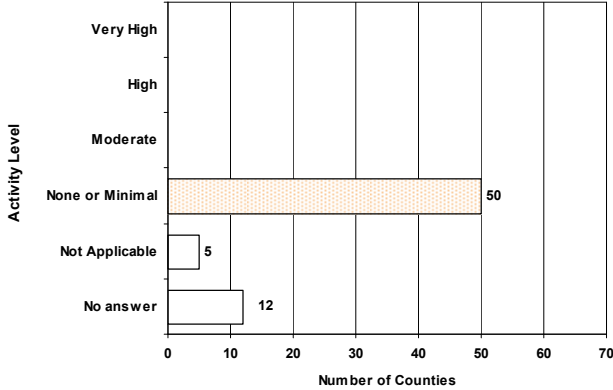


FIGURE 22: Assessment of Influenza Activity in Health Care Facilities

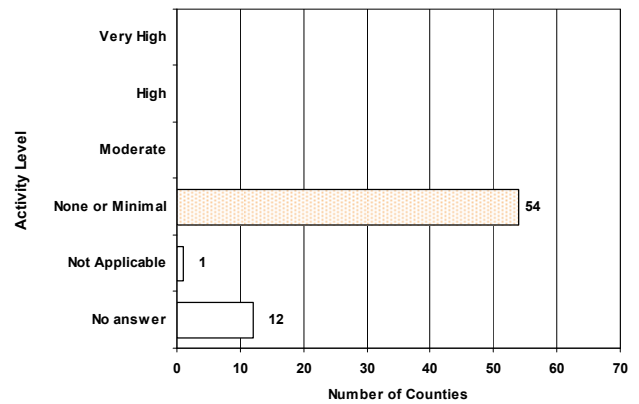


FIGURE 23: Assessment of Influenza Activity in Daycare Centers

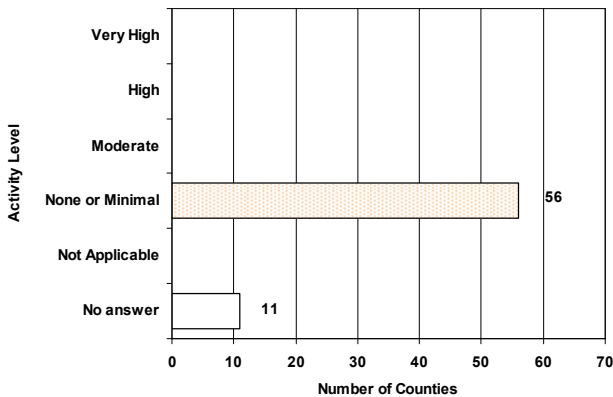


FIGURE 24: Assessment of Influenza Activity in Businesses

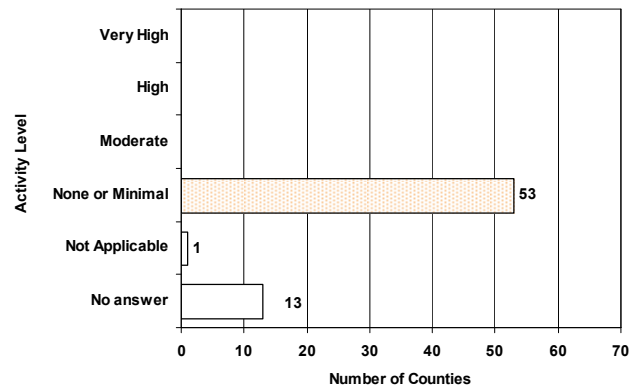
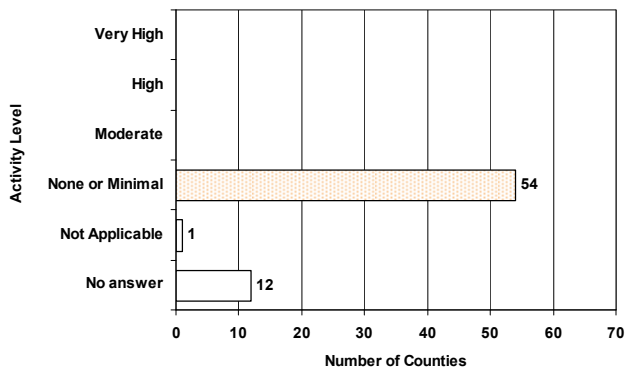


FIGURE 25: Assessment of Influenza Activity in State or Local Government Offices



FDOH 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 Mortality Reporting 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 through EpiGateway.

FIGURE 26 shows Pneumonia and Influenza Deaths for 24 Florida Counties, 2008-2009, 2009-2010, 2010-11, and 2011-12

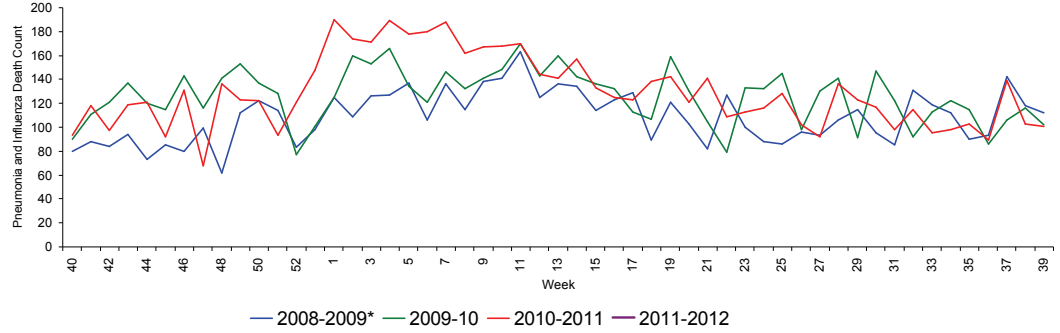
For week 40 (ending October 8) there were:

- **108 deaths reported**
- **Upper bound of 95% confidence interval for prediction: 159 deaths**
- **No excess deaths**

The majority of the deaths are in those aged 75 years and older.

All 24 participating counties reported data for week 40.

FIGURE 26: Pneumonia and Influenza Deaths for 24 Florida Counties, 2008-2009 (Weeks 40-39), 2009-2010 (Weeks 40-39), 2010-2011 (Week 40-38), and 2011-2012 Week 40 as Reported to FPIMSS by 5:00 p.m. October 11, 2011



*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 27 shows Pneumonia and Influenza Deaths for 24 Florida Counties, week 40, 2009 - week 40, 2011 as reported to FPIMSS by 5:00 p.m. October 11, 2011

FIGURE 27: Pneumonia and Influenza Deaths in 4 Age Groups for 24 Florida Counties, Week 40, 2009-Week 40, 2011 as Reported to FPIMSS by 5:00 p.m. October 11, 2011

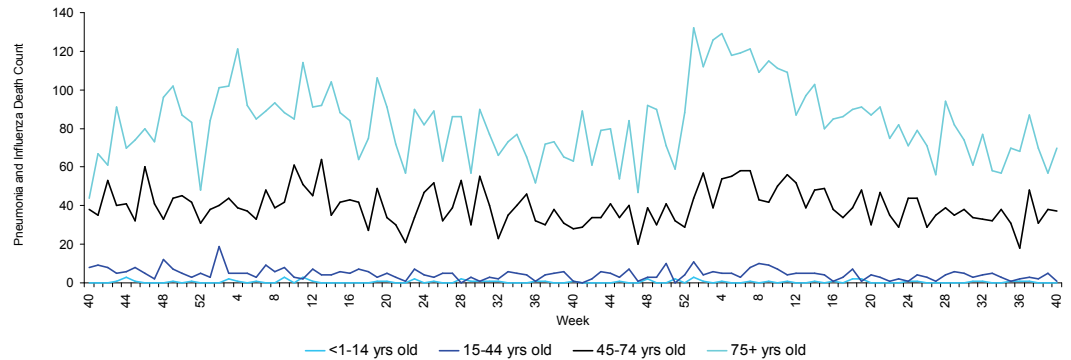
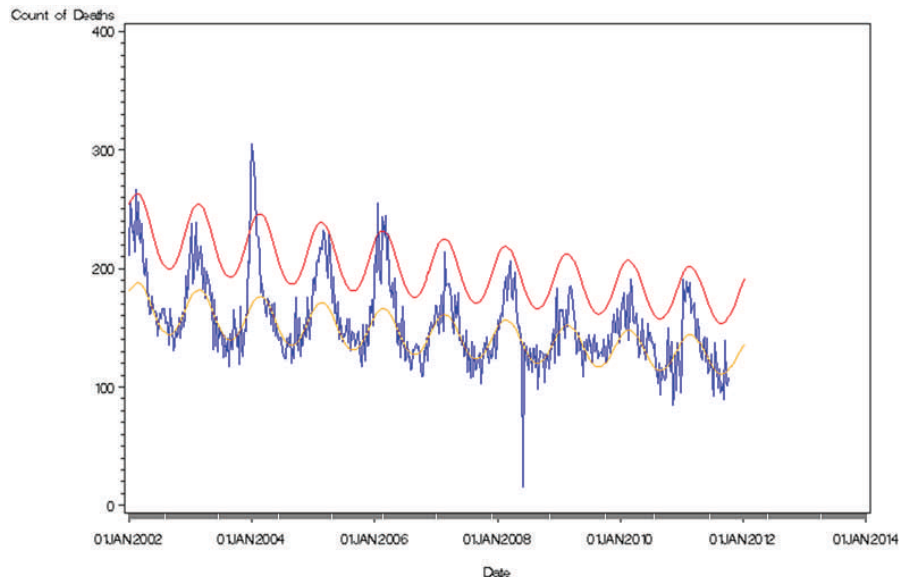


Figure 28: Pneumonia and Influenza Deaths for 24 Counties, Serfling Model January 24, 2009-October 8, 2011 as Reported to FPIMSS as of 5:00 p.m. October 11, 2011

FIGURE 28 shows the reported count of pneumonia and influenza deaths for 24 Florida counties, the number of deaths predicted using the Serfling Model, and the upper bound of the 95% confidence interval for this prediction



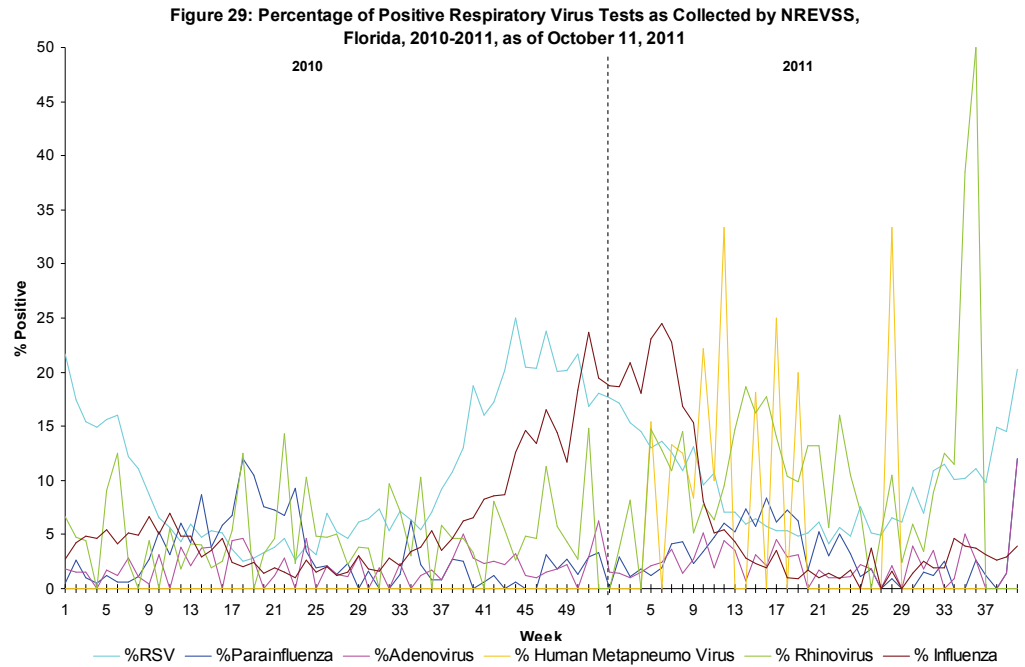
The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratory facilities around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of RSV, human parainfluenza viruses, human metapneumo virus (HMPV), respiratory and enteric adenoviruses, and rotavirus. Florida has over 30 participating laboratory facilities.

FIGURE 29 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
- Adenovirus
- HMPV
- Rhinovirus
- Influenza

Recent spikes in Rhinovirus are due to low numbers of Rhinovirus tests. Data will change as more data are received.



Influenza and ILI Outbreaks

In week 40 there were **no** influenza or ILI outbreaks reported into EpiCom.

No influenza, ILI, or respiratory disease outbreaks were reported in Florida during summer 2011, or so far in the 2011-12 season.

Pediatric Influenza-Associated Mortality

In week 40 there were **no** influenza associated pediatric deaths reported in Florida.

No influenza-associated pediatric deaths were reported in Florida during summer 2011.