



Week 42: October 16-22, 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:

- Influenza and ILI are at low levels nationwide according to Centers for Disease Control and Prevention (CDC) reports. Using Florida ILINet data, CDC calculated minimal ILI intensity for Florida in week 41.

State:

- Influenza and ILI activity in Florida is low in all FDOH surveillance systems. One county reports moderate influenza activity; all others report low or no activity. Eleven counties report that influenza activity is increasing, and one reports decreasing influenza activity.
- ESSENCE and ILINet ILI activity levels are near previous non-pandemic seasons at this time in most regions of Florida.
- No ILI specimen submissions to the state lab in week 41 or 42 tested positive for influenza. In recent weeks, the overall 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 42.

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 42. There have been no influenza-associated pediatric mortalities-associated deaths among those less than 18 years old are reportable in Florida.

October 26, 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; Heather Rubino, MS; Aaron Kite-Powell, MS; Leah Eisenstein, MPH; Lillian Stark, PhD, MPH, MS; Valerie Mock; Janet Hamilton, MPH; Richard Hopkins, MD, MSPH

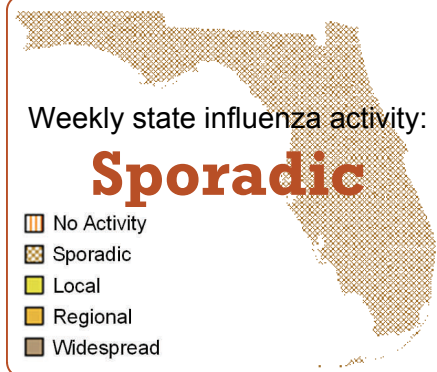


TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 42

| Measure | Difference from previous week | Current week 42 | Previous week 41 | Page of Report |
|--|-------------------------------|-----------------|------------------|----------------|
| Overall statewide activity code reported to CDC | No Change | Sporadic | Sporadic | 1 |
| Percent of visits to ILINet providers for ILI | ▼ 0.1 | 1.0% | 1.1% | 2 |
| Percent of emergency department visits (from ESSENCE) due to ILI | ▲ 0.2 | 2.0% | 1.8% | 3 |
| Percent of laboratory specimens that were positive for influenza | No Change | 0.0% | 0.0% | 5 |
| Number of counties reporting moderate influenza activity | ▲ 1 | 1 | 0 | 6 |
| Number of counties reporting widespread influenza activity | No Change | 0 | 0 | 6 |
| Number of counties reporting increasing influenza activity | ▲ 2 | 11 | 9 | 7 |
| Number of counties reporting decreasing influenza activity | ▼ 3 | 1 | 4 | 7 |
| Number of ILI outbreaks reported in EpiCom | 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.

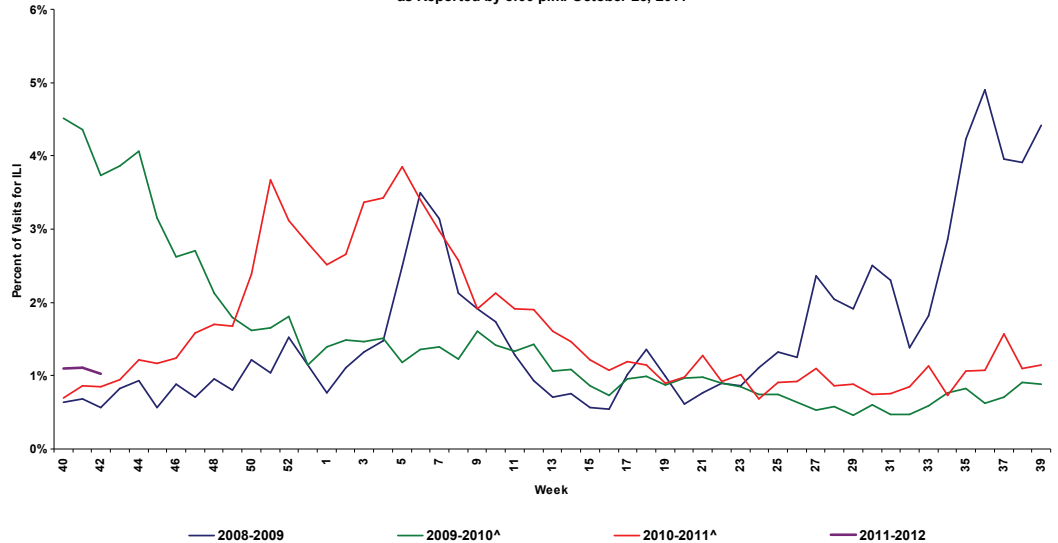
FIGURE 1 shows the percentage of visits for ILI* reported by ILINet Sentinel Providers statewide.

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

68 of 112 ILINet Sentinels have reported visit counts as of 5:00 p.m., October 25, 2011.

10 of 16 ILINet Super-Sentinels have reported visit counts as of 5:00 p.m., October 25, 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 (Weeks 40-42) as Reported by 5:00 p.m. October 25, 2011

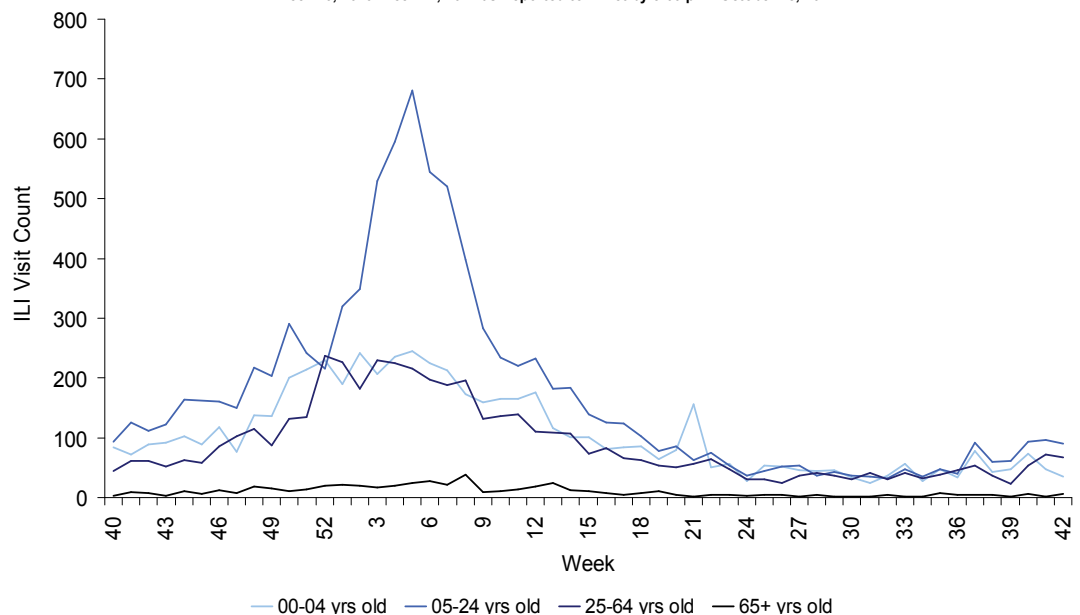


*ILI = Influenza-like illness, fever >100°F AND sore throat and/or cough *in the absence* of another known cause.
 ^There is no week 53 during the 2009-2010, 2010-2011, and 2011-12 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

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 42, 2011 as Reported to ILINet by 5:00 p.m. October 25, 2011

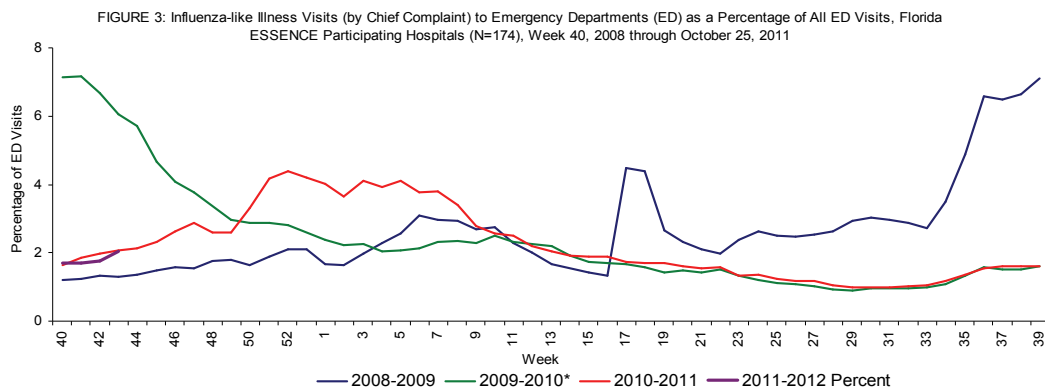


†Data presented here are counts, not proportions as included in Figure 2. This is because age group denominator data is not available through ILINet.

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 complaints that contain fever plus cough and/or sore throat.

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

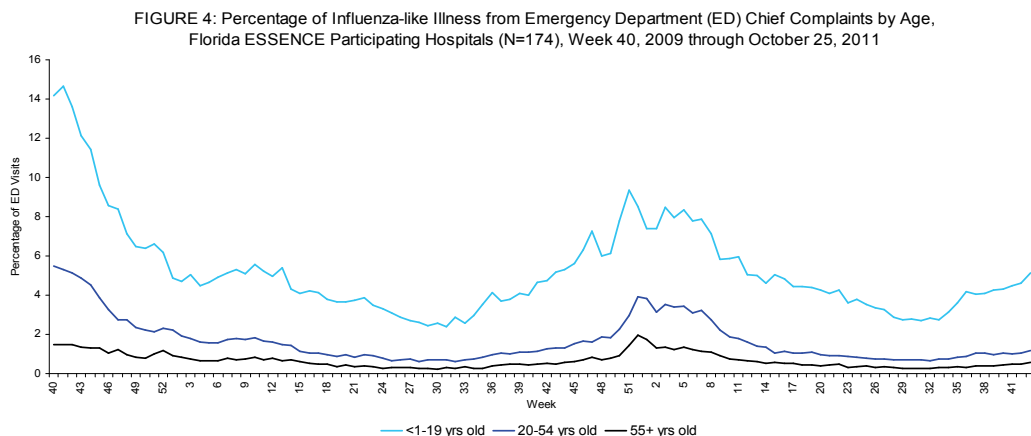
Overall activity for influenza-like illness reported in ESSENCE is similar to levels seen during the same time period in non-pandemic years.



*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 increasing in all age groups.



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

Figure 5: Percentage of ED Visits Resulting for ILI Resulting in Hospital Admission, Hospitals Reporting Discharge Disposition (N=105), Week 40, 2010 to Week 49, 2011

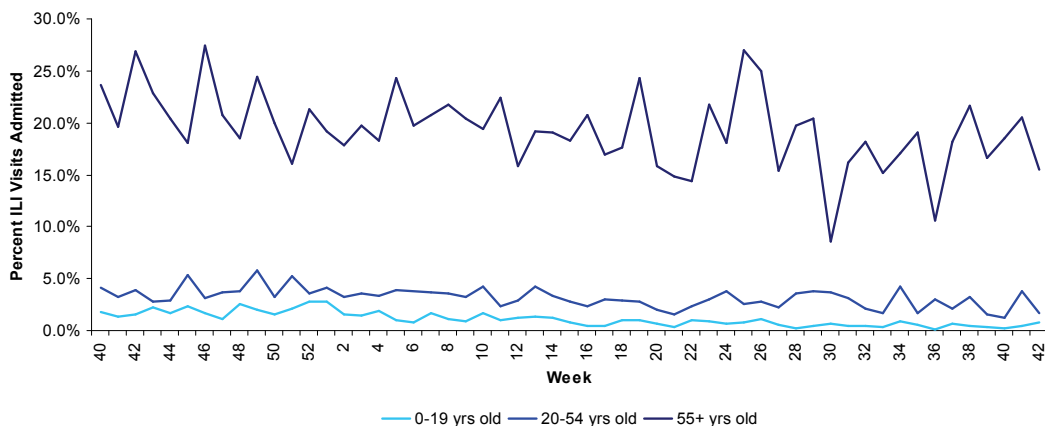


FIGURE 6 - FIGURE 12 describe ED chief complaint data from ESSENCE by Regional Domestic Security Task Force (RDSTF).

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 25, 2011 (N=174)

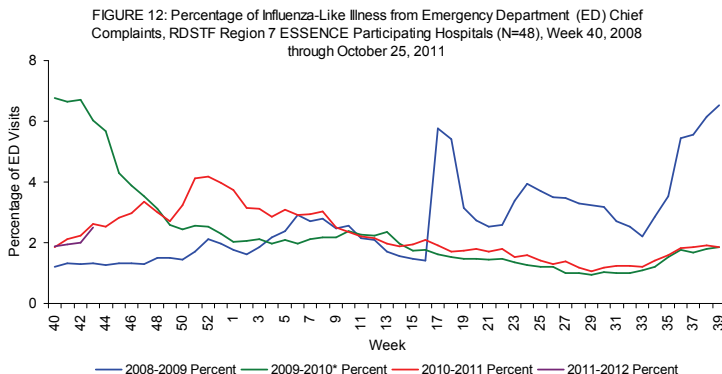
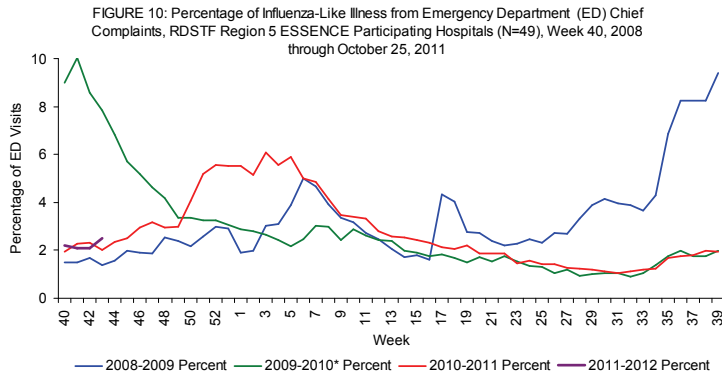
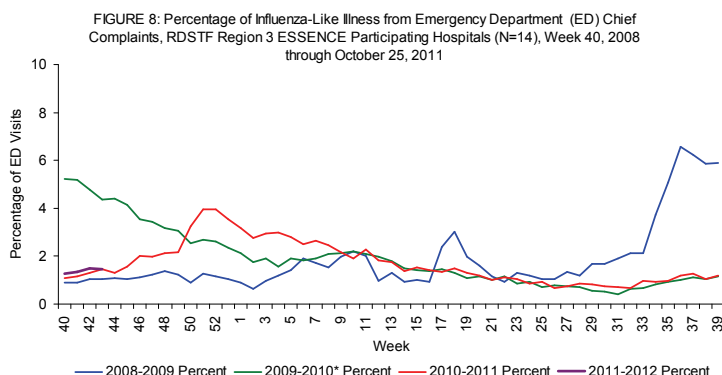
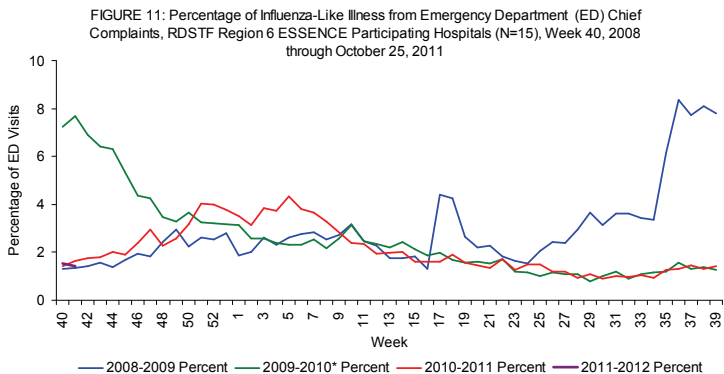
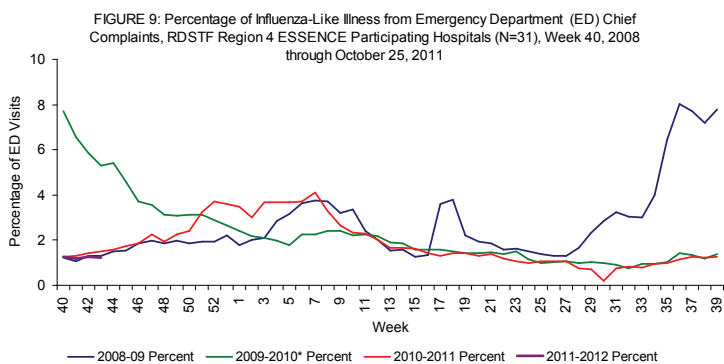
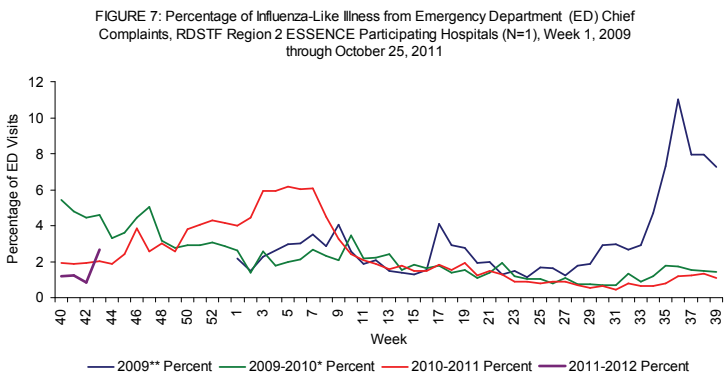
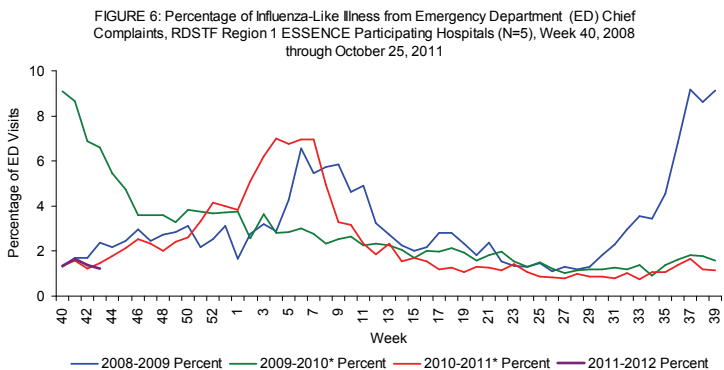
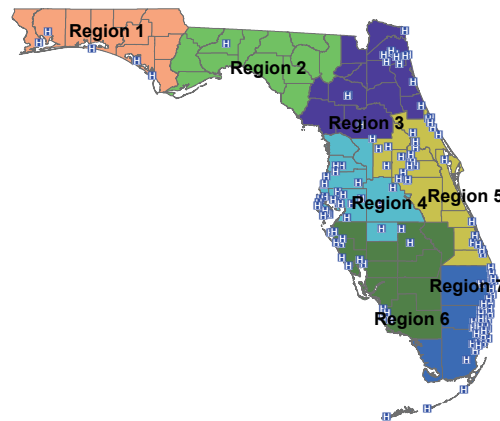


Table 2 shows the number of specimens tested by the Bureau of Laboratories (BOL), how many are influenza positive, and how many are H1N1 or other influenza subtypes.

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.

Note: In week 40, BOL tested specimens collected during a cruise-ship outbreak of ILI. Eight of ten specimens tested positive for influenza A H3. Because the outbreak did not occur in Florida, these data are not listed in Figures 13-14.

Table 2: Bureau of Laboratories Viral Surveillance for Week 42 by Lab Event Date* as reported by 1:00 p.m. October 25, 2011

| | Current Week 42 | Previous Week 41 |
|--|-----------------|------------------|
| Total Specimens Tested | 44 | 37 |
| Influenza Positive Specimens (% of total) | 0 (0.0%) | 0(0.00%) |
| H1N1 Positive Specimens (% of influenza positives) | - | - |
| H3 Influenza A | - | - |
| 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 42, 2011 as Reported in Merlin by 1:00 p.m. October 26, 2011

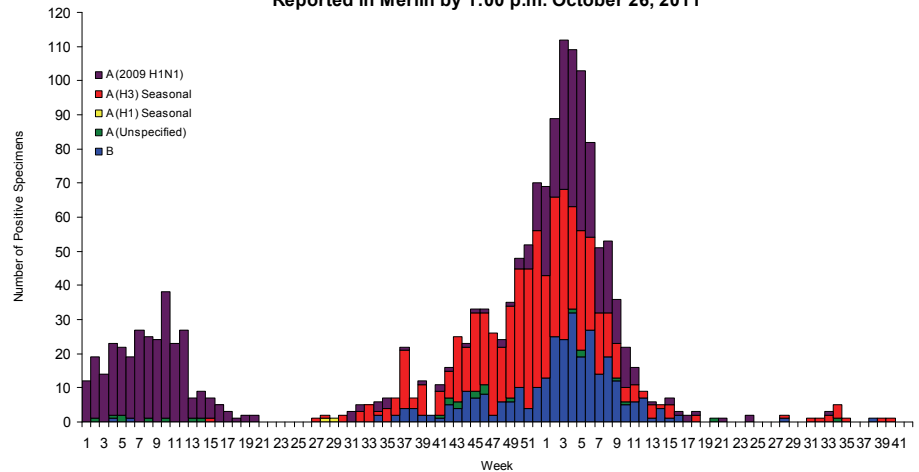
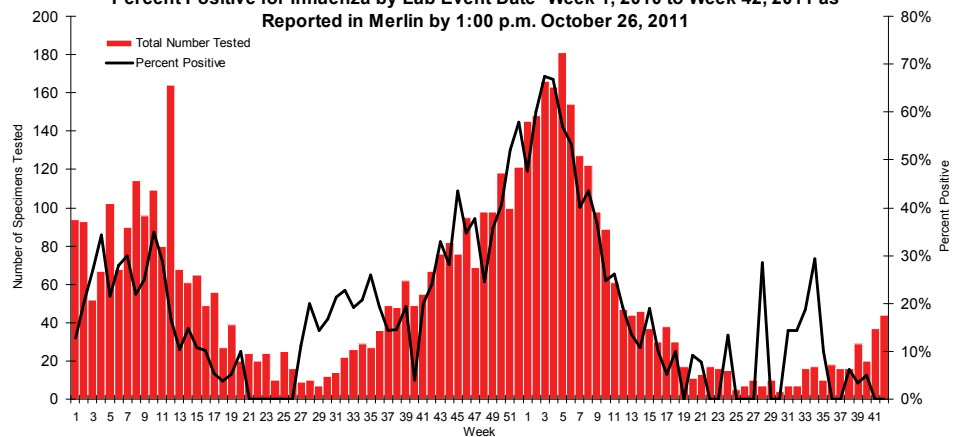


FIGURE 14: Number of Specimens Tested by Florida Bureau of Laboratories (BOL) and Percent Positive for Influenza by Lab Event Date* Week 1, 2010 to Week 42, 2011 as Reported in Merlin by 1:00 p.m. October 26, 2011



*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 3:00 p.m. October 26, 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 42 (ending October 22, 2011) as Reported by 3:00 p.m. October 26, 2011

| Activity Level | Week 41 Number of Counties | Week 42 Number of Counties | Week 42 Counties |
|----------------|----------------------------|----------------------------|---|
| No Report | 0 | 0 | - |
| No Activity | 45 | 47 | Baker, Bay, Bradford, Calhoun, Citrus, Columbia, Dade, Desoto, Dixie, Escambia, Flagler, Franklin, Gadsden, Gilchrist, Glades, Gulf, Hamilton, Hendry, Hernando, Highlands, Hillsborough, Holmes, Indian River, Jackson, Jefferson, Lafayette, Lake, Leon, Levy, Liberty, Madison, Monroe, Nassau, Okaloosa, Okeechobee, Osceola, Putnam, Santa Rosa, Seminole, St. Johns, Sumter, Suwannee, Taylor, Union, Wakulla, Walton, Washington |
| Mild | 22 | 19 | Alachua, Broward, Charlotte, Clay, Collier, Duval, Hardee, Lee, Manatee, Marion, Martin, Orange, Palm Beach, Pasco, Pinellas, Polk, Sarasota, St. Lucie, Volusia |
| Moderate | 0 | 1 | Brevard |
| Widespread | 0 | 0 | - |

Map 2: Weekly County Influenza Activity for Week 42 as Reported by 3:00 p.m. October 26, 2011

One county reports moderate activity.

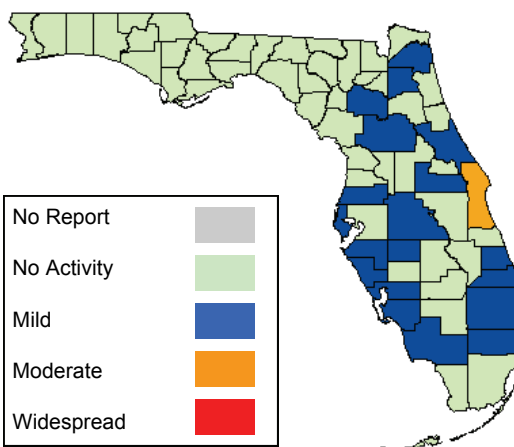
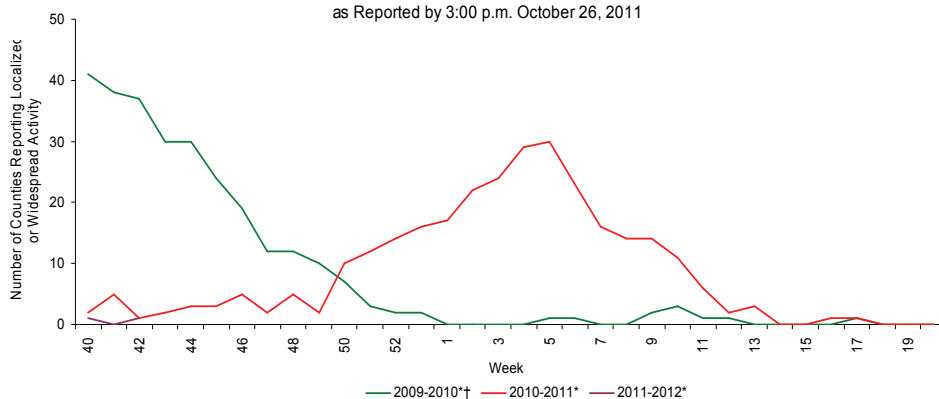


FIGURE 15: Number of Counties Reporting Moderate (Localized) or Widespread Activity, 2009-2010 (Weeks 40-20), 2010-2011 (Weeks 40-20), and 2011-2012 (Weeks 40-42) as Reported by 3:00 p.m. October 26, 2011



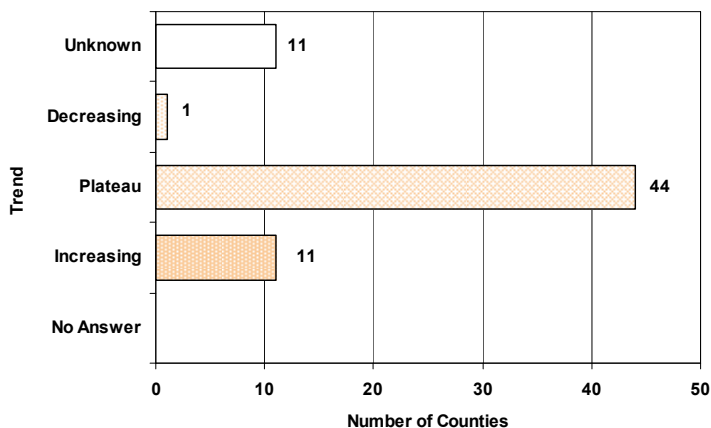
* There is no week 53 during the 2007-2008, 2009-2010, and 2010-2011 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

† 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 16-25 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 42, one county indicated that activity was decreasing, 44 indicated it was about the same as previous weeks, and eleven 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 42 as of 3:00 p.m. October 26, 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 42 as of 3:00 p.m. October 26, 2011.

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

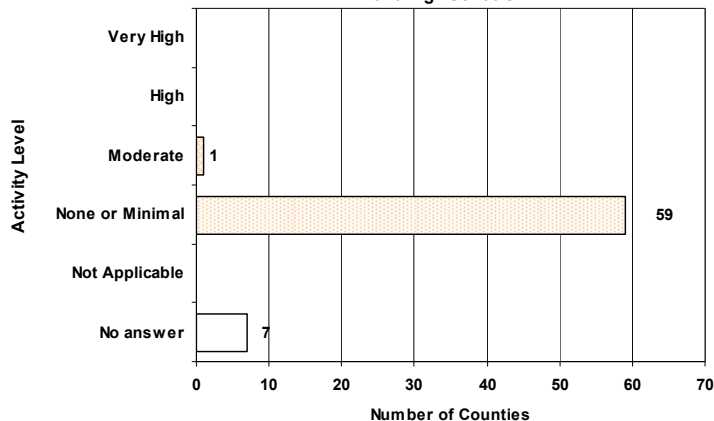


FIGURE 18: Assessment of Influenza Activity in Colleges and Universities

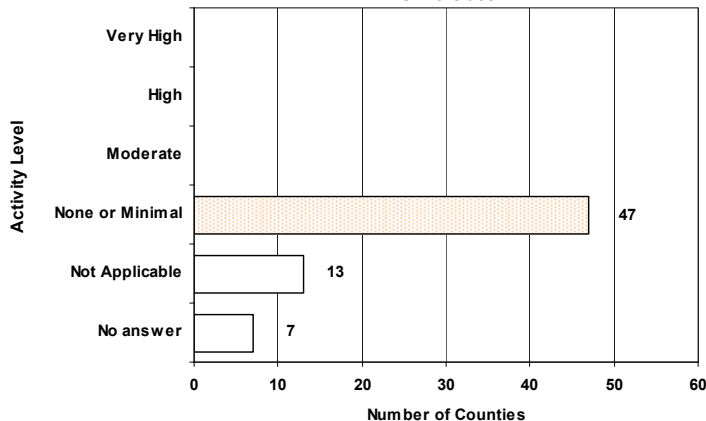


FIGURE 19 - FIGURE 25 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 42 as of 3:00 p.m. October 26, 2011.

FIGURE 19: Assessment of Influenza Activity in Jails/Prisons

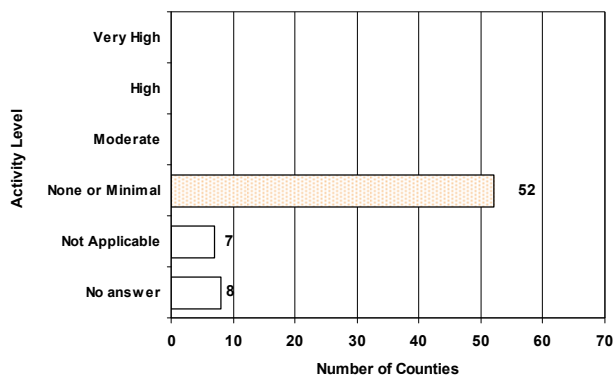


FIGURE 20: Assessment of Influenza Activity in Retirement Facilities

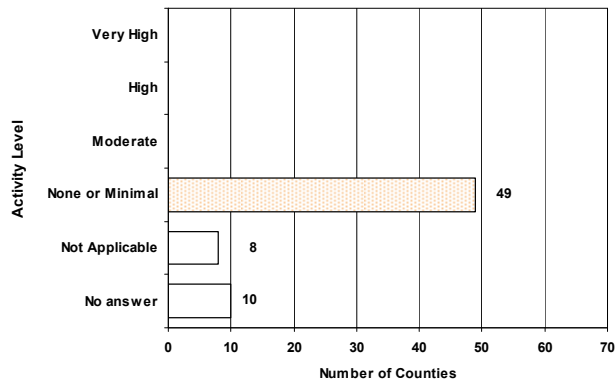


FIGURE 21: Assessment of Influenza Activity in Nursing Homes

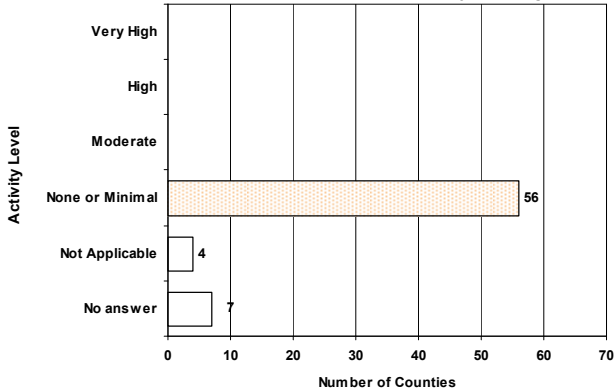


FIGURE 22: Assessment of Influenza Activity in Health Care Facilities

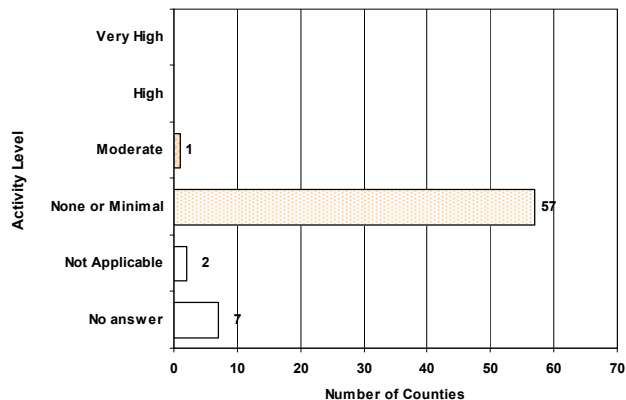


FIGURE 23: Assessment of Influenza Activity in Daycare Centers

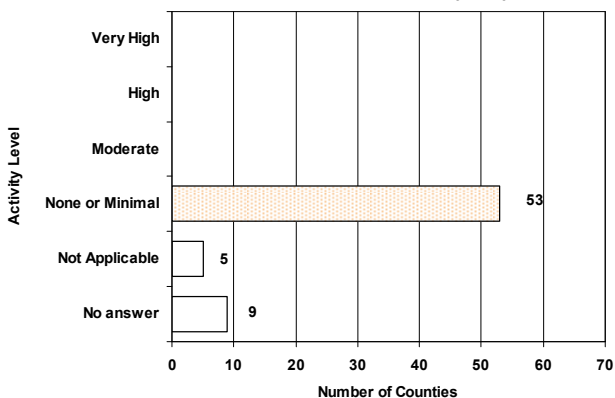


FIGURE 24: Assessment of Influenza Activity in Businesses

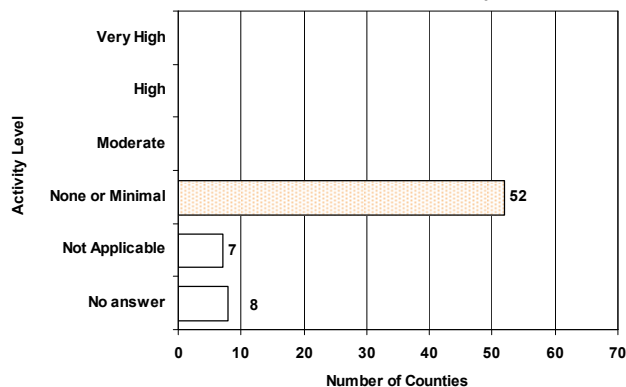
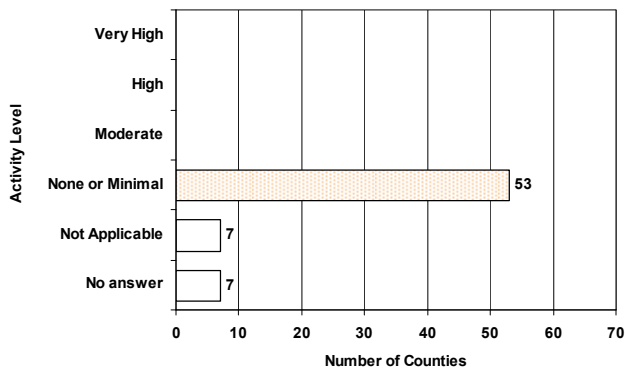


FIGURE 25: Assessment of Influenza Activity in State or Local Government Offices



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 42 (ending October 22) there were:

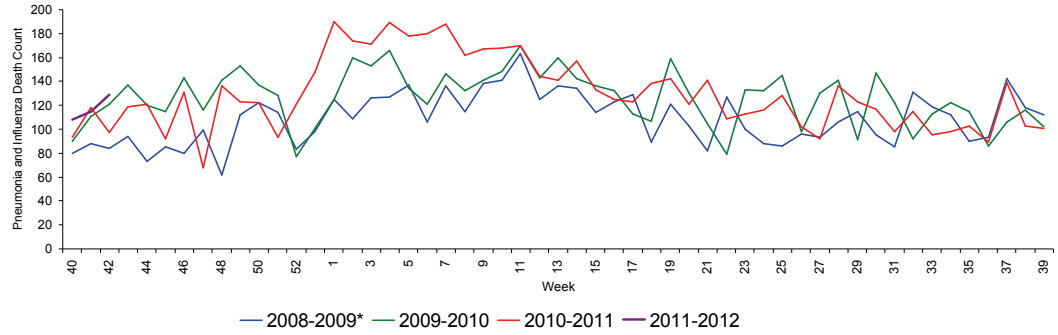
- **129 deaths reported**
- **Upper bound of 95% confidence interval for prediction: 163 deaths**
- **No excess deaths**

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

All participating counties reported for week 42.

FIGURE 27 shows Pneumonia and Influenza Deaths for 24 Florida Counties, week 40, 2009 - week 42, 2011 as reported to FPIMSS by 5:00 p.m. October 26, 2011

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 40-42) as Reported to FPIMSS by 5:00 p.m. October 25, 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: Pneumonia and Influenza Deaths in Four Age Groups for 24 Florida Counties, Week 40, 2009-Week 42, 2011 as Reported to FPIMSS by 5:00 p.m. October 25, 2011

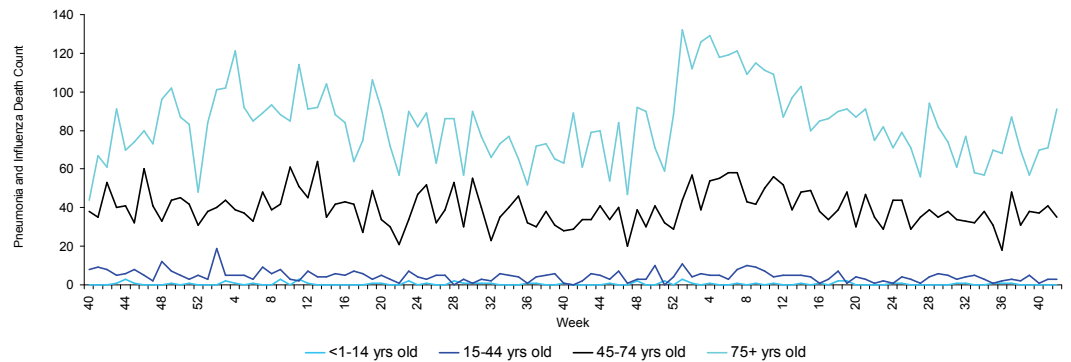
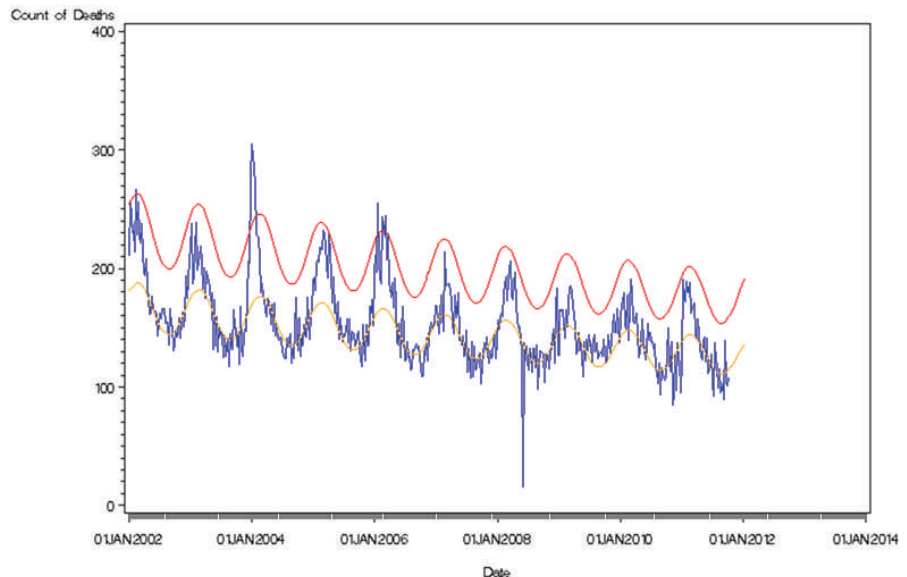


Figure 28: Pneumonia and Influenza Deaths for 24 Counties, Serfling Model January 24, 2009-October 15, 2011 as Reported to FPIMSS as of 5:00 p.m. October 25, 2011

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



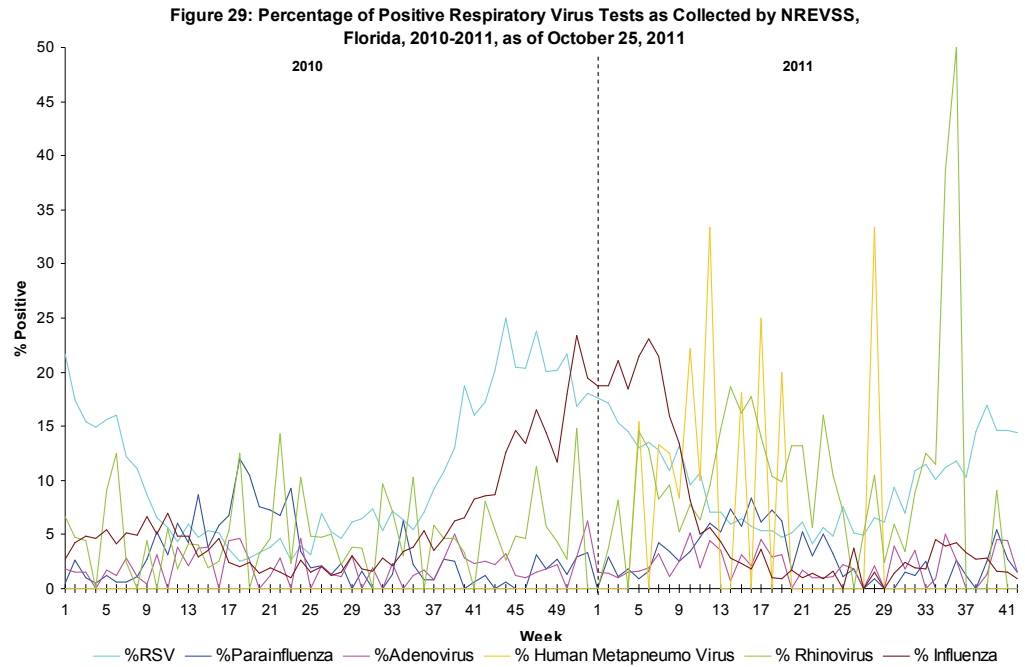
The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratory facilities around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of RSV, human parainfluenza viruses, human metapneumo virus (HMPV), respiratory and enteric adenoviruses, 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 42 there were **no** influenza or ILI outbreaks reported into EpiCom.

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

Pediatric Influenza-Associated Mortality

In week 42 there were **no** influenza associated pediatric deaths reported in Florida.

No influenza-associated pediatric deaths were reported in Florida during summer 2011, or so far in the 2011-12 season.