

# FLORIDA INFLUENZA SURVEILLANCE

Week 47: November 22-November 28, 2009

Produced on: December 2, 2009

Posted on the Bureau of Epidemiology website:

[http://www.doh.state.fl.us/disease\\_ctrl/epi/swineflu/Reports/reports.htm](http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/Reports/reports.htm)

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Weekly state influenza activity:  
Widespread



For more information, and to view the CDC definition for Widespread activity, visit:

<http://www.cdc.gov/flu/weekly/usmap.htm>

The Florida Department of Health (FDOH) monitors and reports 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.

- Influenza activity in the United States remains high, but there are now only 32 states reporting widespread flu activity, including Florida. Nationally, weekly numbers of visits to doctors for influenza-like-illness, new hospitalizations for influenza, and deaths from influenza continued to decline, but are still higher than normal for this time of year.
- Weekly numbers of flu-related emergency department visits, hospitalizations and deaths in Florida also are continuing to fall, and in some parts of the state (such as the western Panhandle) have reached expected values for this time of year. Other parts of the state still have levels similar to those usually seen during the peak of regular influenza season each February. Despite these recent declines, the continued high level of activity and the wide geographic spread of counties reporting widespread, localized, and sporadic influenza activity mean that Florida continues to meet the CDC definition for widespread influenza activity in week 47.
- Strains of the novel 2009 H1N1 influenza virus remain uniformly sensitive to the antivirals oseltamivir and zanamivir (Tamiflu and Relenza). There is no evidence of a change in the virus to a more virulent form. The vast majority of influenza infections are still due to the 2009 H1N1 influenza A virus.
- For the third week in a row, the percentage of visits for influenza-like illness (ILI) to ILINet providers statewide has been lower than the state threshold for moderate activity. Visits for ILI have declined in all age groups, and are closer to levels seen in previous years.

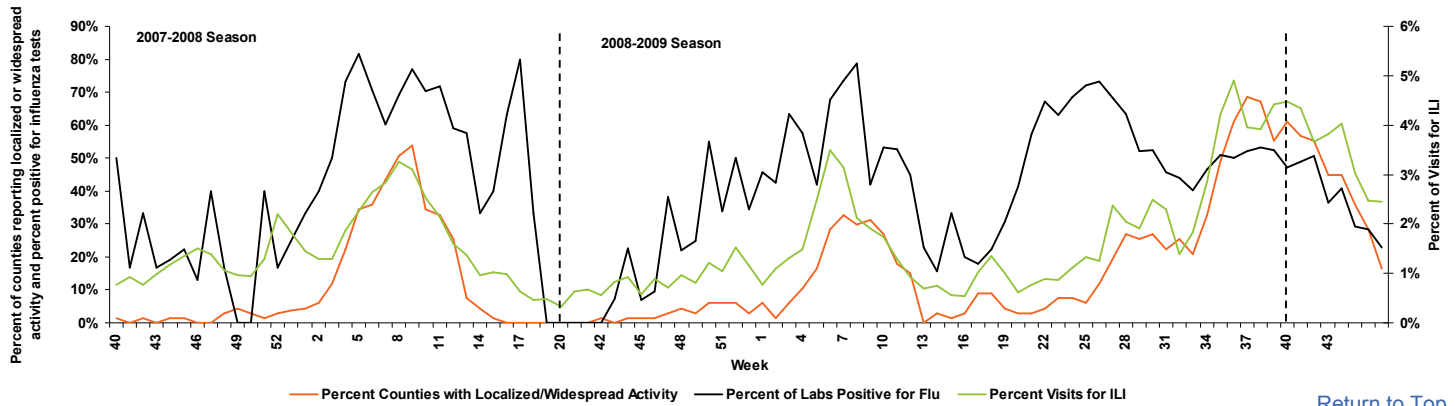
**TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 47**

Measure	Current week 47	Previous week 46	Difference from previous week	Page of Report
Overall statewide activity code reported to CDC	Widespread	Widespread	No Change	<a href="#">1</a>
Percent of visits to ILINet providers for ILI	2.4%	2.5%	-0.1	<a href="#">2</a>
Percent of emergency department visits (from ESSENCE) due to ILI	3.8%	4.1%	-0.3	<a href="#">4</a>
Percent of hospital admissions (from ESSENCE) due to ILI	0.5%	0.5%	No Change	<a href="#">4</a>
Percent of laboratory specimens that were positive for influenza	22.8%	28.4%	-5.6	<a href="#">6</a>
Percent of positive influenza specimens that were identified as 2009 H1N1	84.6%	98.4%	-13.8	<a href="#">6</a>
Number of counties reporting localized influenza activity	11 counties	17 counties	-6	<a href="#">7</a>
Number of counties reporting widespread influenza activity	1 county	2 counties	-1	<a href="#">7</a>
Number of counties reporting increasing influenza activity	3 counties	5 counties	-2	<a href="#">8</a>
Number of counties reporting decreasing influenza activity	45 counties	46 counties	-1	<a href="#">8</a>
Number of recent hospitalizations in confirmed 2009 H1N1 influenza cases	25 hospitalizations	37 hospitalizations	-12	<a href="#">11</a>
Number of recent deaths in confirmed 2009 H1N1 influenza cases	2 deaths	5 deaths	-2	<a href="#">12</a>
Number of ILI outbreaks reported in Epi Com	4 outbreaks	3 outbreaks	1	<a href="#">13</a>

Find more information at: [http://www.doh.state.fl.us/disease\\_ctrl/epi/htopics/flu/index.htm](http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/index.htm)

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

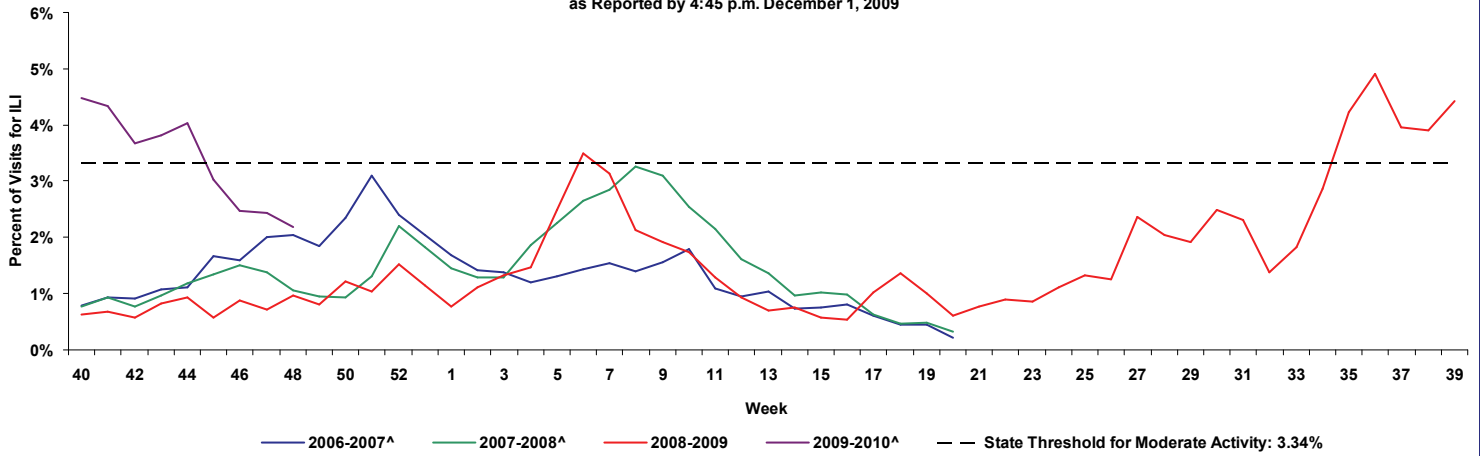
FIGURE 1: Percent Visits for ILI to ILINet Sites, Percent of Counties with Localized or Widespread Activity, and Percent of Specimens Tested by Florida Bureau of Laboratories Positive for Influenza, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Week 40-47)



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II. ILINET INFLUENZA-LIKE ILLNESS-STATEWIDE

FIGURE 2: Percentage of Visits for Influenza-Like Illness\* Reported by ILINet Sentinel Providers Statewide, 2006-2007, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-47) as Reported by 4:45 p.m. December 1, 2009

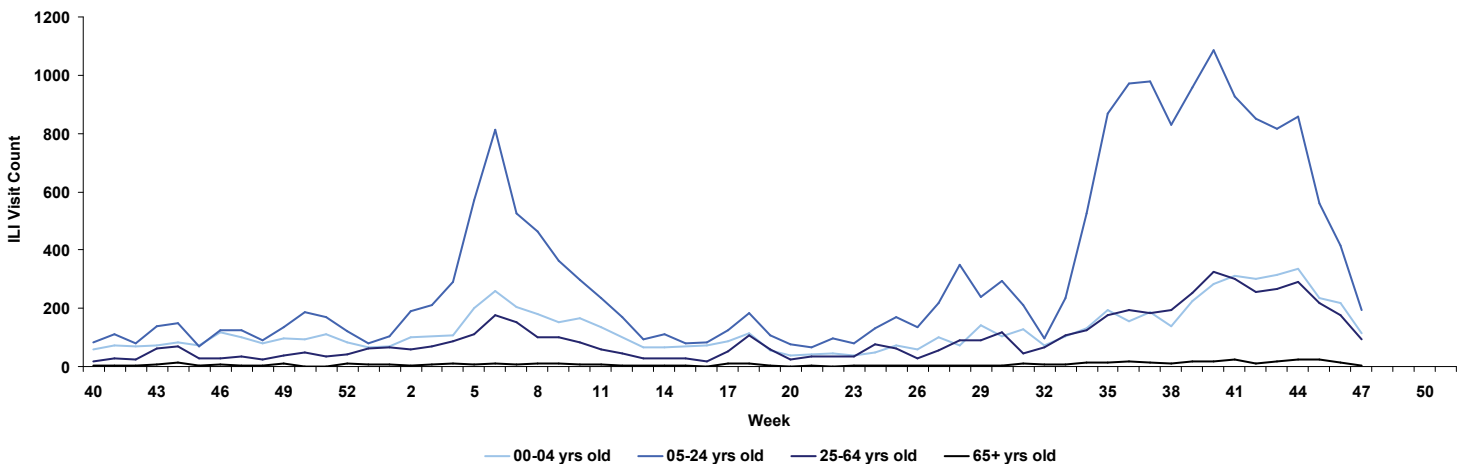


\*ILI = Influenza-like illness, fever >100°F AND sore throat and/or cough *in the absence* of another known cause.

\*\*The 2009-2010 threshold for moderate activity is calculated from ILINet data. The threshold for moderate activity is the mean percentage of ILI visits during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with ≥10% 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 only a week 53 during the 2008-2009 season; the week 53 data point for other 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, 2008-Week 47, 2009 as Reported to ILINet as Reported by 4:15 p.m. December 1, 2009



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

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

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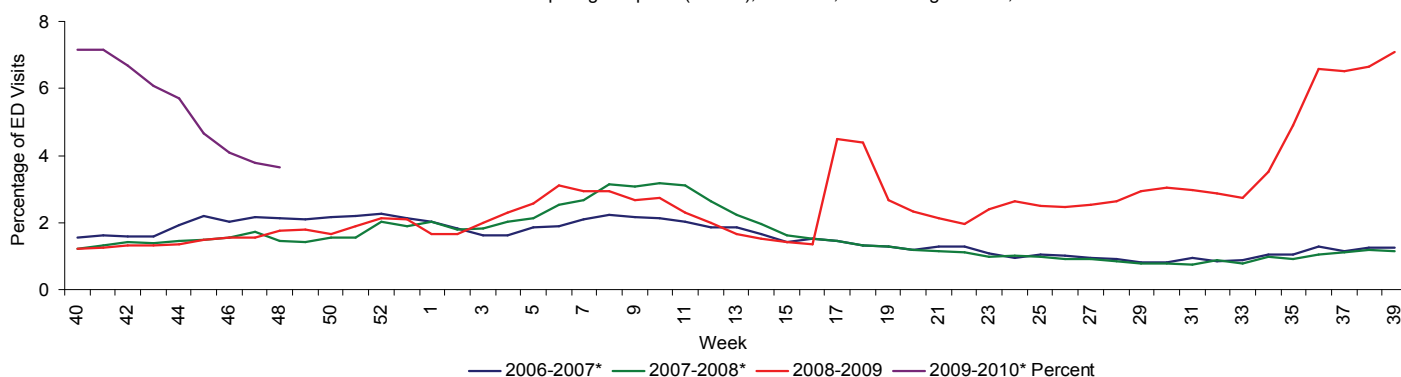


Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data daily from 132 hospital emergency departments (ED). These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is 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.

Overall activity for influenza-like illness remains above expected levels for this time of year (Figure 11). In some areas it exceeds the levels seen at the peak of normal influenza seasons. The majority of the increase in ED visits is occurring in younger age groups (Figure 12). In the last 7-8 weeks the percent of ED visits has either stabilized or has declined, depending on the region and age group. 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 13). Thirty 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. The percentage decreased in all age groups in week 47. 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 11: Influenza-like Illness Visits (by Chief Complaint) to Emergency Departments (ED) as a Percentage of All ED Visits, Florida ESSENCE Participating Hospitals (N=132), Week 40, 2006 through Dec. 1, 2009



\*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.

FIGURE 12: Percentage of Influenza-like Illness from Emergency Department (ED) Chief Complaints by Age, Florida ESSENCE Participating Hospitals (N=132), Week 40, 2008 through Dec. 1, 2009

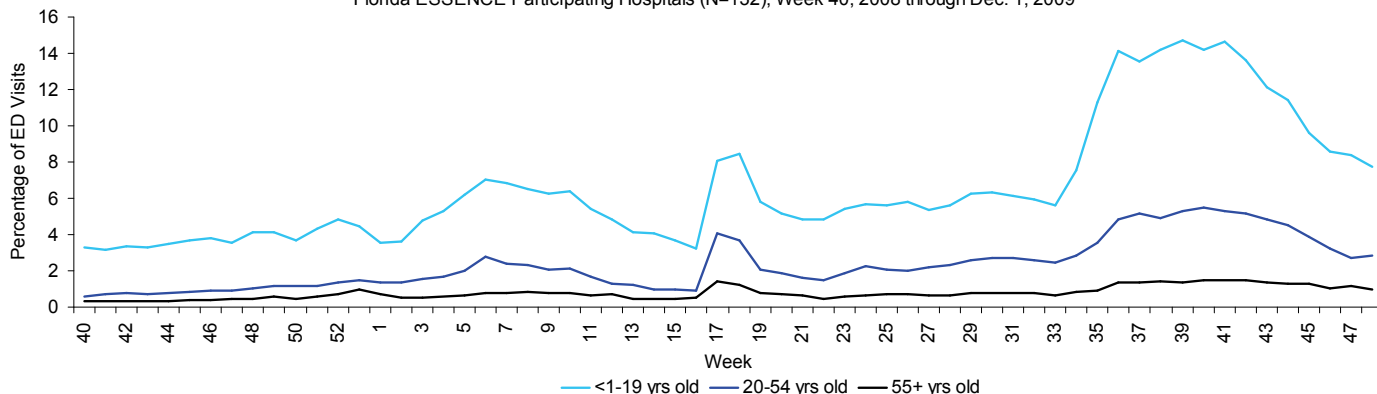
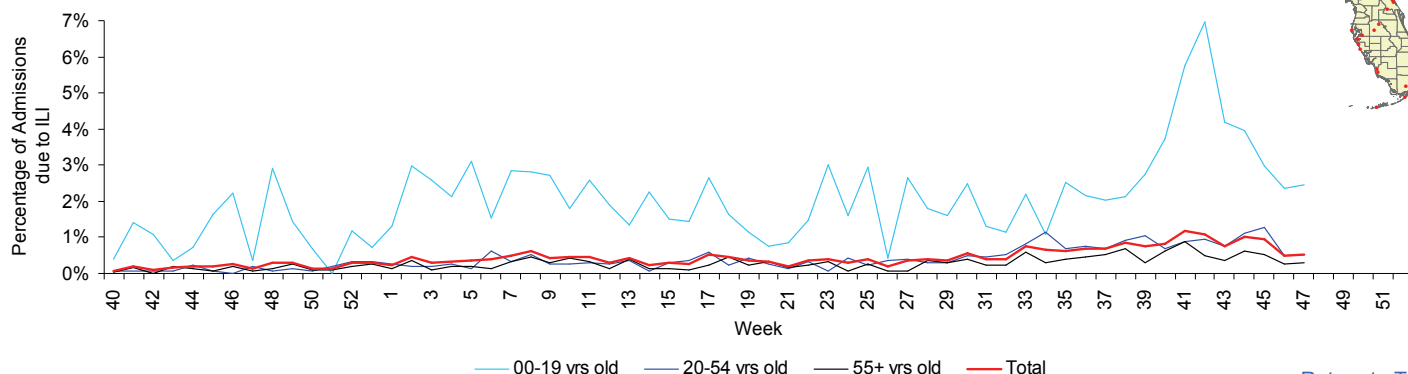


FIGURE 13: Percentage Admitted to Hospital for Influenza-Like Illness (ILI) Among All Persons Admitted in the Hospital through the ED Based on ED Chief Complaint, Hospitals Reporting Admissions Data (N=30) for Week 40, 2008 to Week 47, 2009





As of 9:00 a.m. December 1, 57 specimens with a Lab Event Date\* during week 47 were tested by the Bureau of Laboratories (BOL). Of those, 13 (22.8%) were positive for influenza. Of the 13 positive for influenza, 11 (85%) were novel H1N1 influenza, and 2 were Influenza A unspecified (Figure 20-22). The number of specimens collected this week was decreased due to the Thanksgiving holiday. Virtually all infections due to the new novel H1N1 virus are caused by strains that are sensitive to Tamiflu and Relenza.

A total of 225 specimens with a Lab Event Date\* during week 46 have now been tested by BOL. Sixty-three (28.4%) were positive for influenza (Figure 20-22), 98% of which were novel H1N1. One specimen from week 46 tested positive for H3 seasonal influenza A. In week 44 there were two specimens that tested positive for H3 seasonal influenza A, as well as two specimens that tested positive for Influenza B. Since week 39, two previous specimens tested by BOL tested positive for influenza B; one had a lab event date of week 39 and the other from week 40. Influenza B, unlike influenza A does not cause epidemics. Laboratory information is preliminary and will change as additional results are received. Totals from previous weeks will be adjusted to reflect correct specimen numbers.

Enhanced laboratory testing activities in response to novel H1N1 influenza activity was initiated in week 17.

FIGURE 20: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Laboratories by Subtype by Lab Event Date\*  
Week 40, 2008 to Week 47, 2009 as Reported in Merlin by 9:00 a.m. December 1, 2009

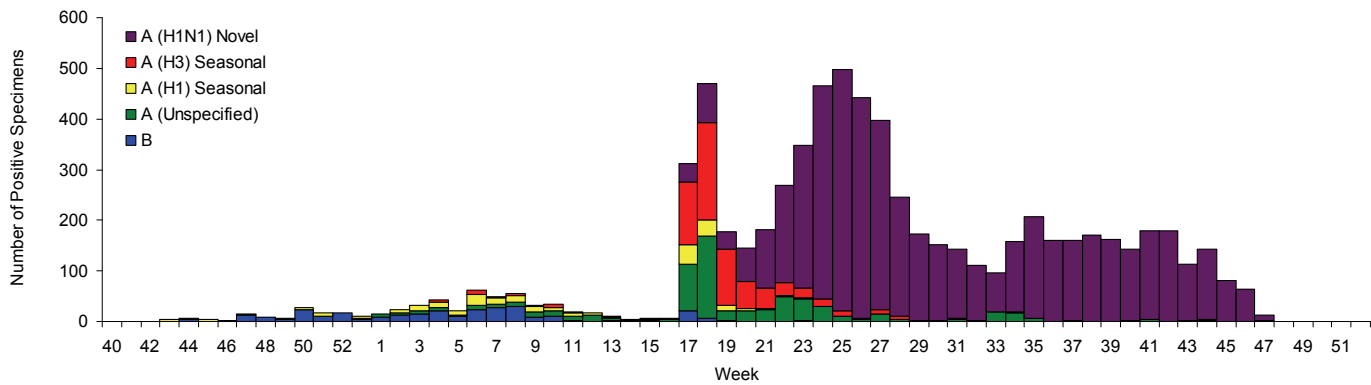


FIGURE 21: Number of Specimens Tested by Florida Bureau of Laboratories and Percent Positive for Influenza by Lab Event Date\*  
Week 40, 2008 to Week 47, 2009 as Reported in Merlin by 9:00 a.m. December 1, 2009

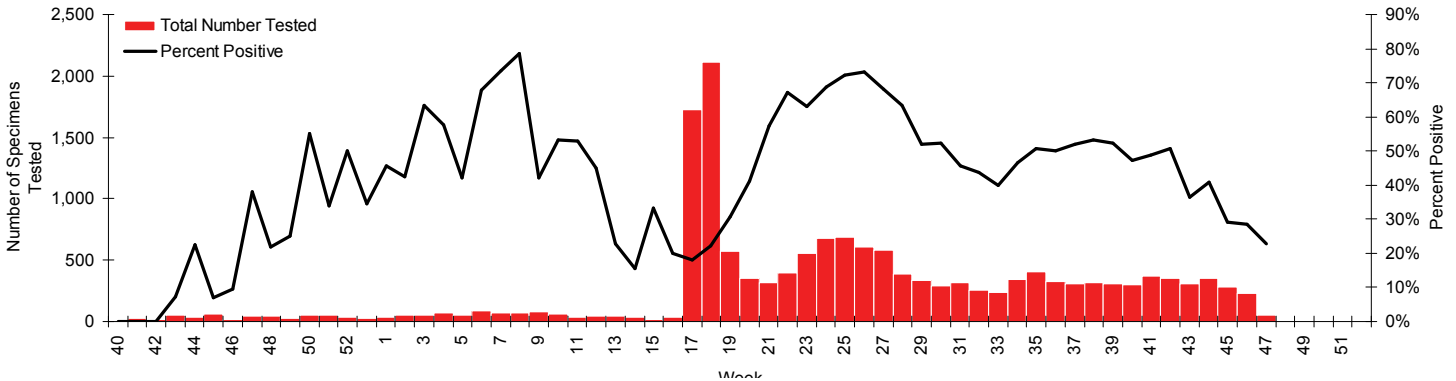
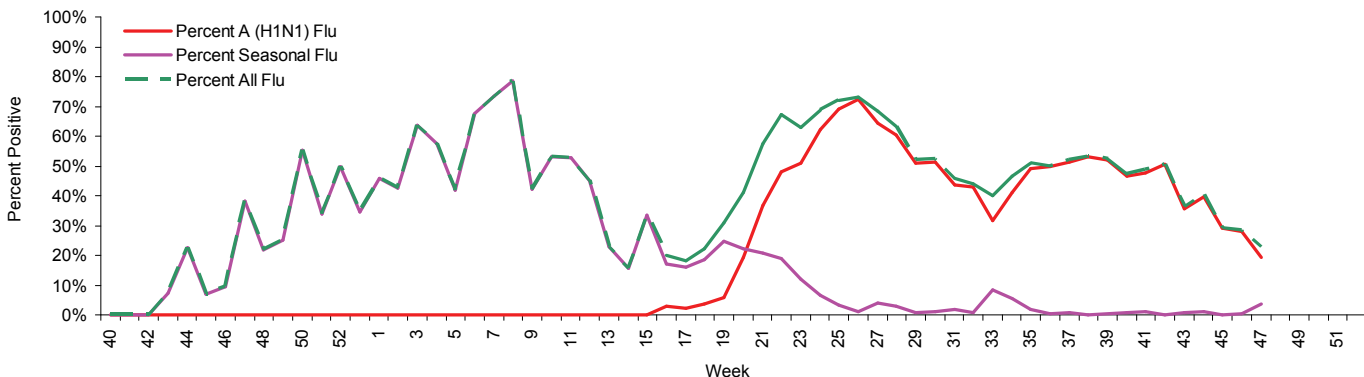


FIGURE 22: Percentage of Specimens Tested by Florida Bureau of Laboratories Positive for Influenza by Subtype by Lab Event Date\*  
Week 40, 2008 to Week 47, 2009 as Reported in Merlin by 9:00 a.m. December 1, 2009



\*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.

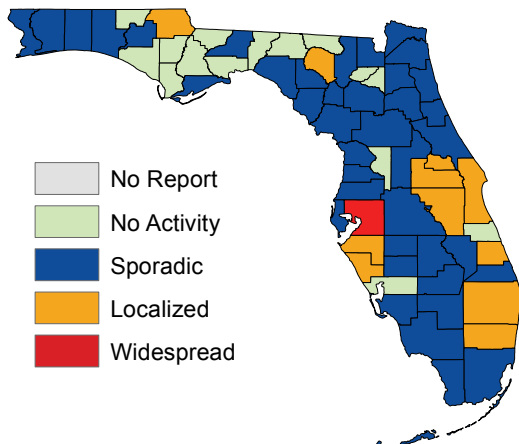
For county-specific laboratory data, please refer to the Flu Lab Report in Merlin. For instructions on how to use the Flu Lab

As of 10:30 a.m. December 2, 2009, a total of 67 (100%) counties had reported their weekly level of influenza activity. This is the second week in a row we have achieved 100% reporting, thanks 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.*

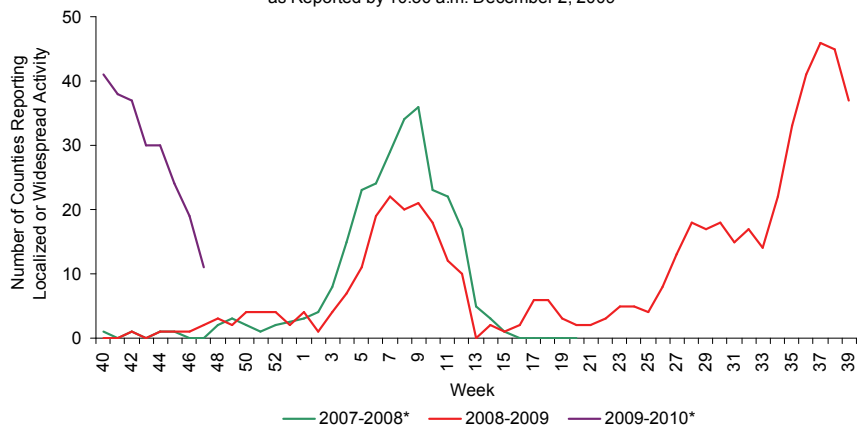
**TABLE 3: Weekly County Influenza Activity for Week 47 (ending November 28, 2009) as Reported by 10:30 am December 2, 2009**

Activity Level	Week 46 Number of Counties	Week 47 Number of Counties	Week 47 Counties
No Report	0	0	
No Activity	10	15	Bay, Bradford, Calhoun, Charlotte, Gadsden, Gulf, Hamilton, Holmes, Indian River, Jefferson, Liberty, Madison, Sumter, Union, Wakulla
Sporadic	38	40	Alachua, Baker, Citrus, Clay, Collier, Columbia, Dade, Desoto, Dixie, Duval, Escambia, Flagler, Franklin, Gilchrist, Glades, Hardee, Hendry, Hernando, Highlands, Lafayette, Lake, Lee, Leon, Levy, Marion, Martin, Monroe, Nassau, Okaloosa, Okeechobee, Pasco, Pinellas, Polk, Putnam, St. Johns, Santa Rosa, Taylor, Volusia, Walton, Washington
Localized	17	11	Brevard, Broward, Jackson, Manatee, Orange, Osceola, Palm Beach, St. Lucie, Sarasota, Seminole, Suwannee
Widespread	2	1	Hillsborough

**MAP 3: Weekly County Influenza Activity for Week 47 (ending November 28, 2009) as Reported by 10:30 a.m. December 2, 2009**



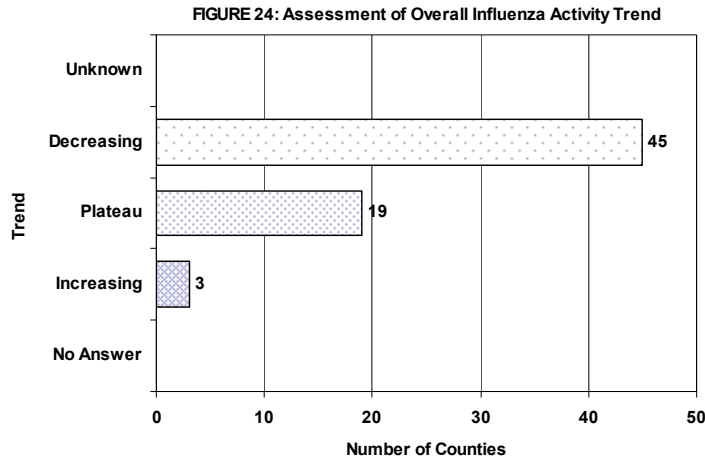
**FIGURE 23: Number of Counties Reporting Localized or Widespread Activity, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-47) as Reported by 10:30 a.m. December 2, 2009**



County flu activity level definitions are now available online at: [http://www.doh.state.fl.us/disease\\_ctrl/epi/FluActivityDef.htm](http://www.doh.state.fl.us/disease_ctrl/epi/FluActivityDef.htm)

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 24-32 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 November 28th, 45 counties indicated that activity was decreasing, 19 indicated it was about the same, and 3 indicated that activity was increasing.

Assessment of Overall Influenza Activity Trend in County as Reported by County Health Department Flu Coordinators for Week 47 as of 10:30 a.m. December 2, 2009



Definitions for the County Influenza Activity Trends are available at: [http://www.doh.state.fl.us/disease\\_ctrl/epi/CountyInfluenzaTrendGuide.html](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 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.

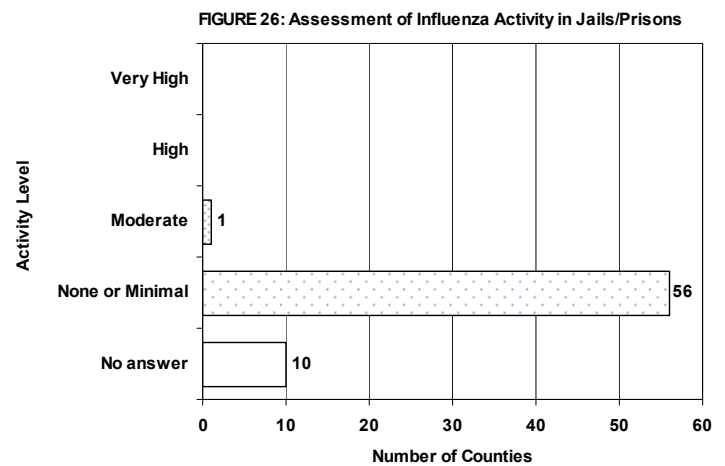
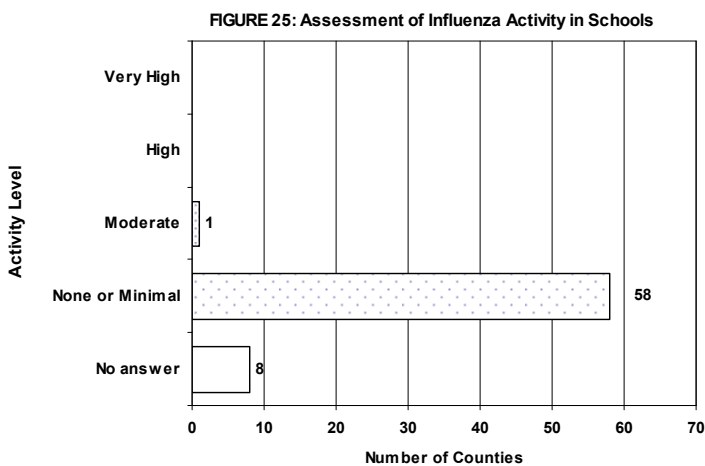
Moderate activity -- Absenteeism elevated above baseline (in range of 10 to 25%) in some but fewer than half of schools where it is known; occasional children sent home because of ILI.

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](http://www.doh.state.fl.us/disease_ctrl/epi/FluAssessment.htm)

Activity Levels in Various Facilities by County as Reported by County Health Department Flu Coordinators for Week 47 as of 10:30 a.m. December 2, 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. Note that as of week 44 we are now using a Serfling model to more accurately calculate our predicted values for weekly pneumonia and influenza mortality. Expect continued updates in the coming weeks.

For week 47 (ending November 28, 2009) as of December 2 at 1:00 p.m., 112 deaths had been reported; 158 deaths were expected for week 47, indicating that there were no excess deaths. The majority of the deaths are in those aged 45 years and older.

FIGURE 33: Pneumonia and Influenza Deaths for 24 Florida Counties, 2006-2007 (Weeks 40-39), 2007-2008 (Weeks 40-39), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-46) as Reported to FPIMSS by 1:00 p.m. December 2, 2009

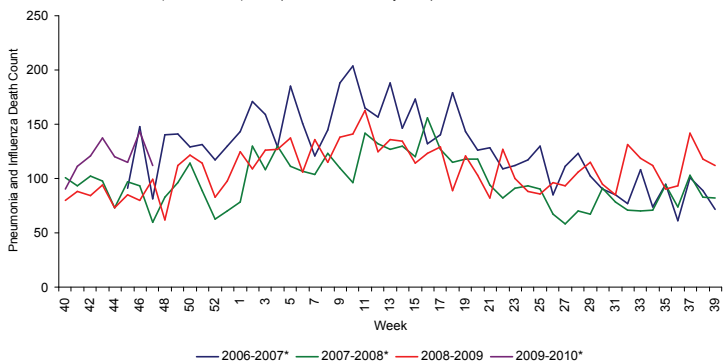
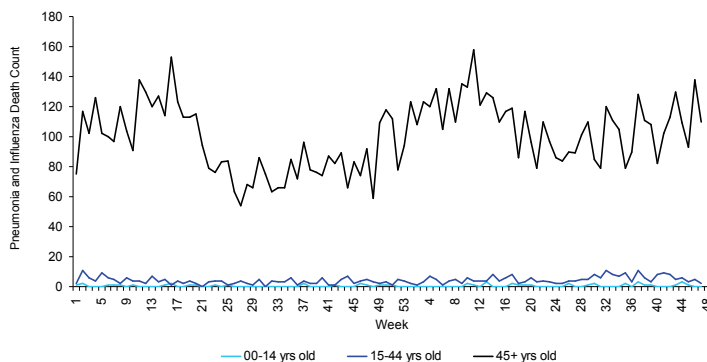


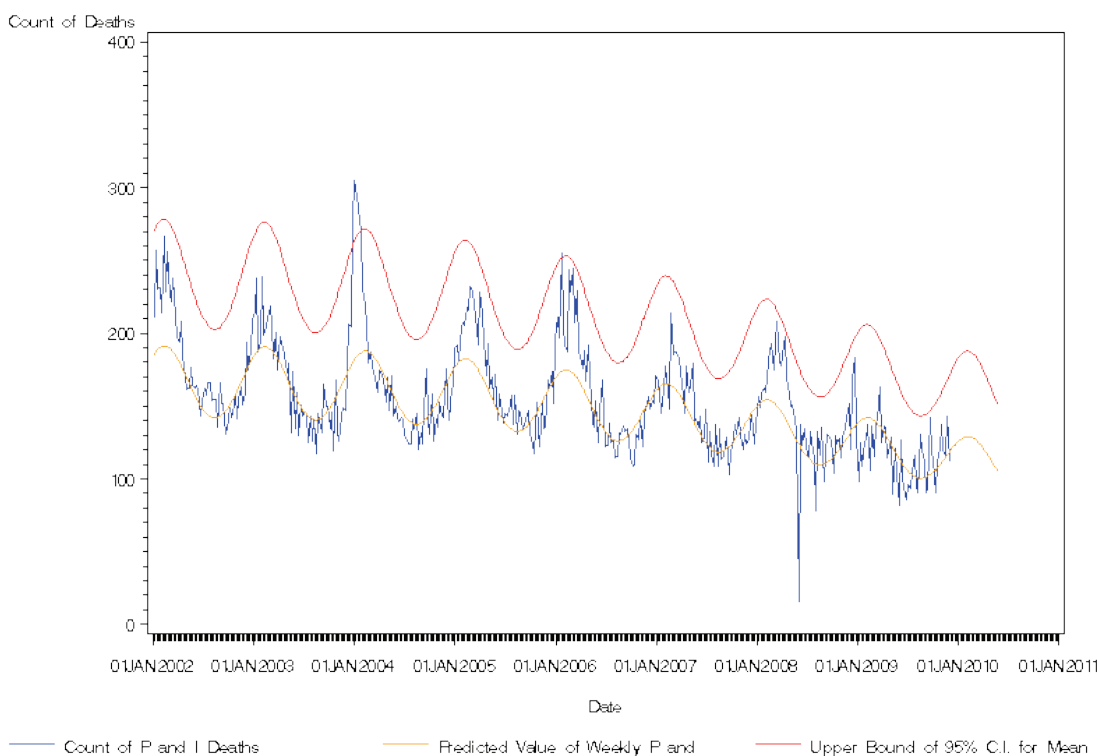
FIGURE 34: Pneumonia and Influenza Deaths in 3 Age Groups for 24 Florida Counties, Week 1, 2008-Week 47, 2009 as Reported to FPIMSS by 1:00 p.m. December 2, 2009



\*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 of the 24 participating counties reported their data for week 45. There were no excess deaths.

All of the 24 participating counties reported their data for week 45. The highest number of pneumonia and influenza deaths has occurred in those over 45.

FIGURE 35: Pneumonia and Influenza Deaths for 24 Florida Counties, Serfling Model January 1, 2002-November 28, 2009 as Reported to FPIMSS as of 1:00 p.m. December 2, 2009







**423 confirmed or suspect outbreaks of novel influenza A (H1N1) have been reported as of November 28, 2009**

Schools have been the most heavily impacted setting with 255 (60.3%) of the 423 outbreaks. Summer camps accounted for 50 (11.8%) of the outbreaks, daycares accounted for 27 (6.4%), and correctional facilities accounted for 22 (5.2%).

**4 confirmed or suspect outbreaks of novel influenza A (H1N1) reported during week 47 (ending November 28, 2009)**

During week 47, 4 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 3 schools and one correctional facility. Over the last four weeks we have seen a decline in the total number of new outbreaks reported per week, from approximately 30 new outbreaks per week down to 4 outbreaks this week.

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

**TABLE 11: Cumulative outbreaks Reported via EpiCom by County as of Week 47 (Ending November 28, 2009)**

County	Number	Percent
Alachua	1	0.2%
Baker	2	0.5%
Bradford	1	0.2%
Brevard	1	0.2%
Clay	4	0.9%
Collier	28	6.6%
Columbia	2	0.5%
Duval	11	2.6%
Escambia	42	9.9%
Glades	1	0.2%
Hamilton	1	0.2%
Hendry	3	0.7%
Hernando	1	0.2%
Hillsborough	54	12.8%
Holmes	1	0.2%
Indian River	3	0.7%
Jackson	2	0.5%
Lake	62	14.7%
Madison	1	0.2%
Marion	4	0.9%
Martin	1	0.2%
Miami-Dade	22	5.2%
Nassau	21	5.0%
Okaloosa	4	0.9%
Orange	43	10.2%
Osceola	28	6.6%
Palm Beach	49	11.6%
Pasco	5	1.2%
Pinellas	3	0.7%
Polk	2	0.5%
Putnam	1	0.2%
Sarasota	7	1.7%
Seminole	5	1.2%
St. Johns	5	1.2%
St. Lucie	1	0.2%
Volusia	1	0.2%
<b>Total</b>	<b>423</b>	<b>100.0%</b>

**TABLE 12: Cumulative outbreaks Reported via EpiCom by Setting as of Week 47 (Ending November 28, 2009)**

Setting	Number	Percent
Athletics	3	0.7%
Church	1	0.2%
College/University	3	0.7%
Community Center	5	1.2%
Correctional Facility	22	5.2%
Day Care	27	6.4%
Group/Foster Home	2	0.5%
Healthcare Facility	8	1.9%
Home	4	0.9%
Home/School	1	0.2%
Long-Term Care Facility	4	0.9%
Military Facility	3	0.7%
Out of State Trip	5	1.2%
School	255	60.3%
Special Needs Facility	14	3.3%
Summer Camps	50	11.8%
Work	13	3.1%
Work/Home	3	0.7%
<b>Total</b>	<b>423</b>	<b>100.0%</b>

**TABLE 13: Recent Outbreaks Reported via EpiCom by Setting during Week 47 (Ending November 28, 2009)**

Setting	Number	Percent
School	3	75.0%
Correctional Facility	1	25.0%
<b>Total</b>	<b>4</b>	<b>100.0%</b>