FLORIDA INFLUENZA SURVEILLANCE

Week 49: December 5-December 12, 2009

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http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/Reports/reports.htm
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Weekly state influenza activity:
Regional

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.

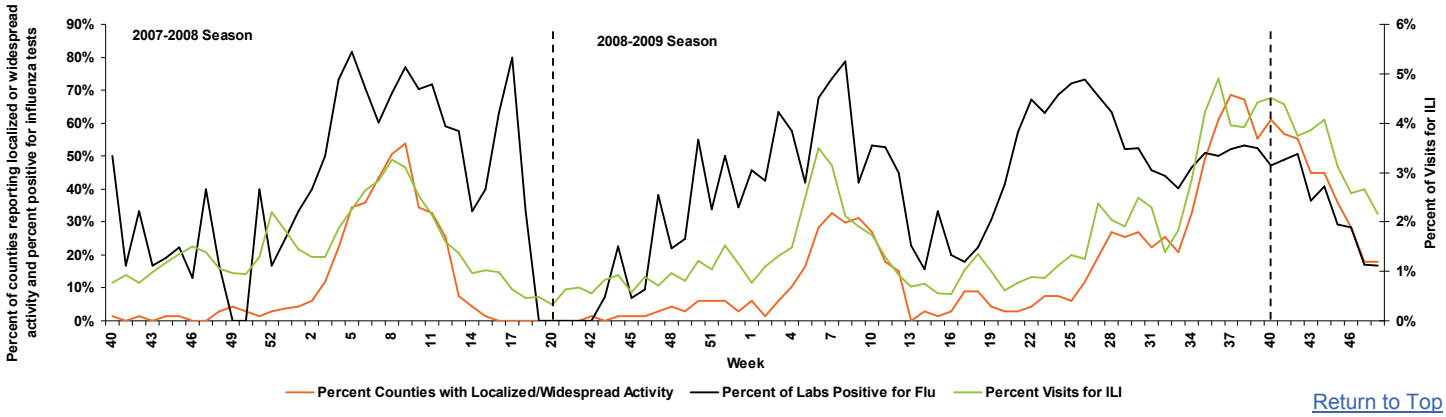
- Influenza activity in the United States remains high, but there are now only 14 states reporting widespread flu activity for week 48. Nationally, weekly numbers of visits to doctors for influenza-like-illness, new hospitalizations for influenza, and deaths from influenza continued to decline, but are still higher than normal for this time of year.
- This week Florida again reported Regional influenza activity to the CDC. Multiple indicators of influenza activity in Florida show substantial reductions. Because of these recent declines, Florida lowered its influenza activity from widespread to regional for last week (week 48) for the first time since week 33 (week ending August 22).
- 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 fifth 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 similar to levels seen in previous years. ILI outbreaks in Florida are at zero for the second week in a row.

TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 49

Measure	Current week 49	Previous week 48	Difference from previous week	Page of Report
Overall statewide activity code reported to CDC	Regional	Regional	No Change	1
Percent of visits to ILINet providers for ILI	1.6%	2.2%	-0.6	2
Percent of emergency department visits (from ESSENCE) due to ILI	3.1%	3.0%	0.1	4
Percent of hospital admissions (from ESSENCE) due to ILI	3.3%	3.6%	-0.3	4
Percent of laboratory specimens that were positive for influenza	13.9%	16.7%	-2.8	6
Percent of positive influenza specimens that were identified as 2009 H1N1	90.0%	97.0%	-7.0	6
Number of counties reporting localized influenza activity	9 counties	12 counties	-3	7
Number of counties reporting widespread influenza activity	1 county	0 counties	1	7
Number of counties reporting increasing influenza activity	3 counties	2 counties	1	8
Number of counties reporting decreasing influenza activity	40 counties	40 counties	No Change	8
Number of recent hospitalizations in confirmed 2009 H1N1 influenza cases	37 hospitalizations	18 hospitalizations	19	11
Number of recent deaths in confirmed 2009 H1N1 influenza cases	4 deaths	6 deaths	-2	12
Number of ILI outbreaks reported in Epi Com	0 outbreaks	0 outbreaks	No Change	13

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 40-49)



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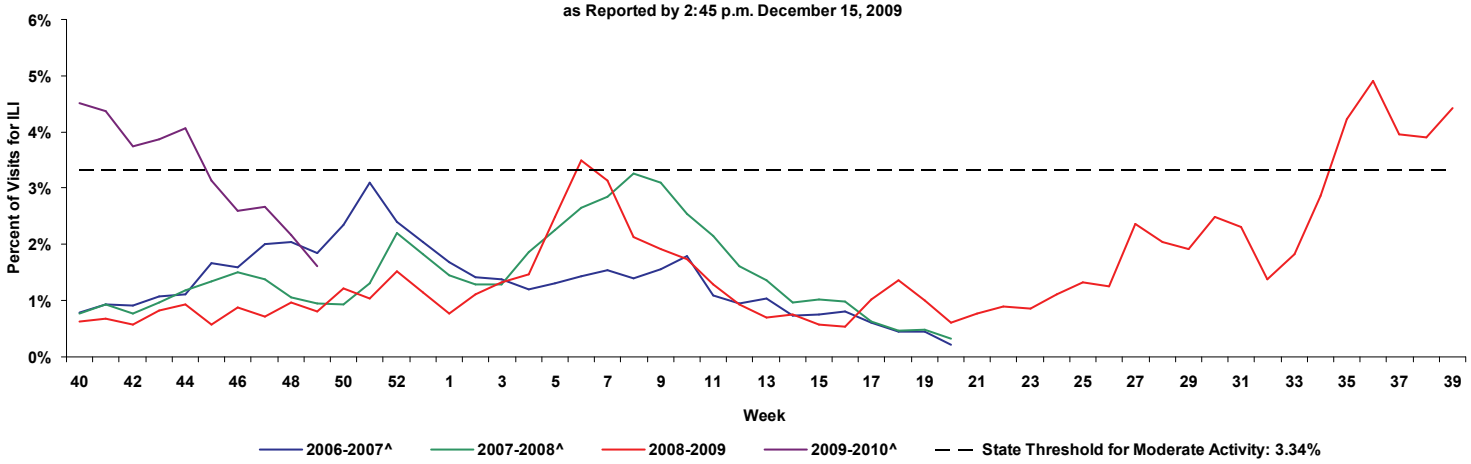
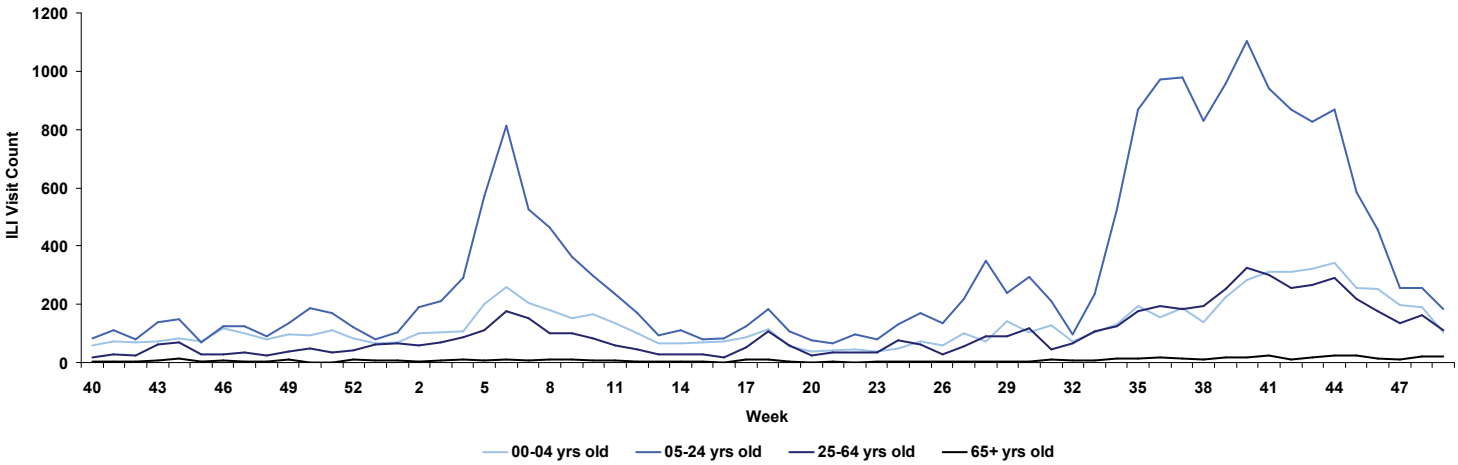
II. ILINET INFLUENZA-LIKE ILLNESS-STATEWIDE

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 40-49) as Reported by 2:45 p.m. December 15, 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 49, 2009 as Reported to ILINet as Reported by 2:45 p.m. December 15, 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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The table below shows the ILI activity by Regional Domestic Security Task Force (RDSTF) as reported by Florida ILINet physicians for week 49 (ending December 12, 2009). The graphs below include ILI activity as reported by sentinel physicians for the 2006-2007, 2007-2008, and 2008-2009, and 2009-10 seasons.

MAP 1: RDSTF Regions for ILINet Data

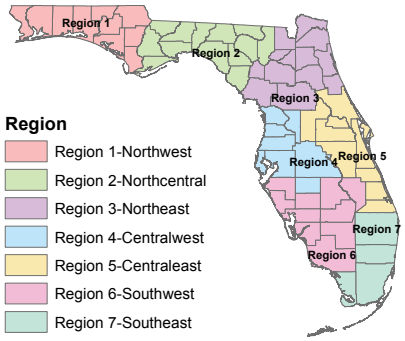


TABLE 2: ILINet Providers and Percent of Visits for ILI by Region, Week 49, as Reported by 2:45 p.m. December 15, 2009

Region	Number of Participating Providers	Providers that Reported		Percent Visits for ILI
Region 1-Northwest	19	4	(21.05%)	0.49%
Region 2-Northcentral	5	2	(40.00%)	2.30%
Region 3-Northeast	23	13	(56.52%)	1.85%
Region 4-Centralwest	40	16	(40.00%)	1.48%
Region 5-Centraleast	50	30	(60.00%)	1.91%
Region 6-Southwest	20	5	(25.00%)	2.97%
Region 7-Southeast	25	10	(40.00%)	0.58%
Total	**182**	**80**	**43.96%**	**1.61%**

Percentage of Visits for Influenza-Like Illness Reported by ILINet Sentinel Providers by RDSTF Region, 2006-07 (Weeks 40-20), 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-10 (Weeks 40-49) as Reported by 2:45 p.m. December 15, 2009

This week there are 6 regions (Regions 1, 2, 4, 5, 6, and 7) reporting the percentage of visits due to ILI that is similar to what has been seen in previous years. Please refer to table above for the number of providers reporting for each region. Data should be interpreted with caution due to the low number of providers reporting in some regions. Numbers will change as more data are received.

FIGURE 4: Region 1-Northwest

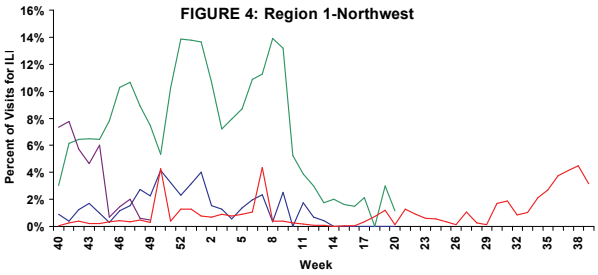


FIGURE 5: Region 2-Northcentral

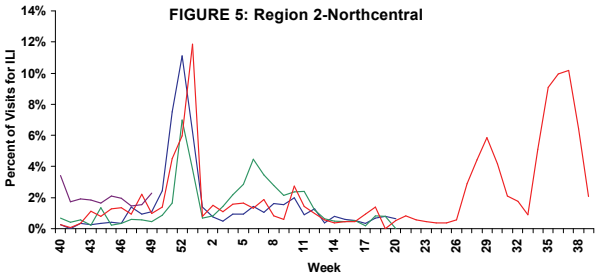


FIGURE 6: Region 3-Northeast

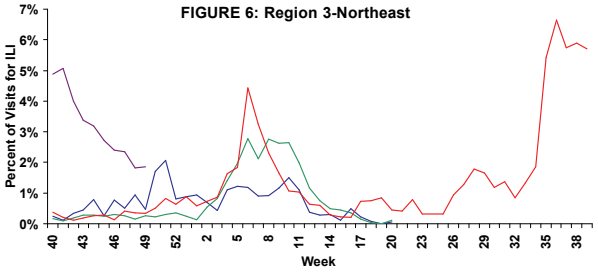


FIGURE 7: Region 4-Centralwest Region

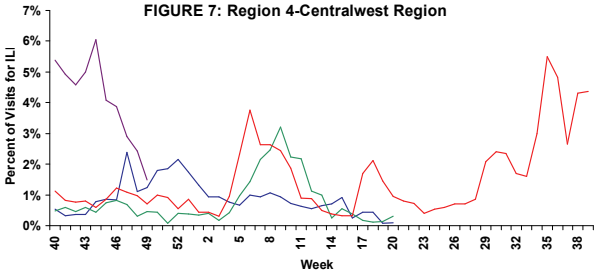


FIGURE 8: Region 5-Centraleast

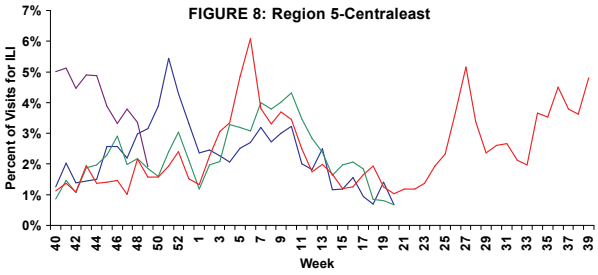


FIGURE 9: Region 6-Southwest

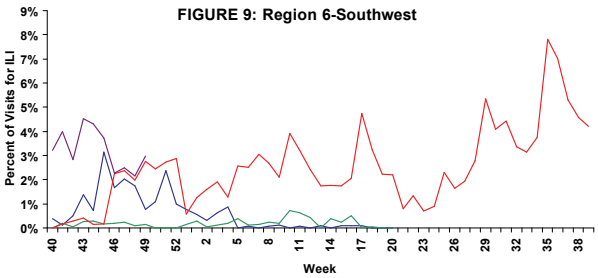
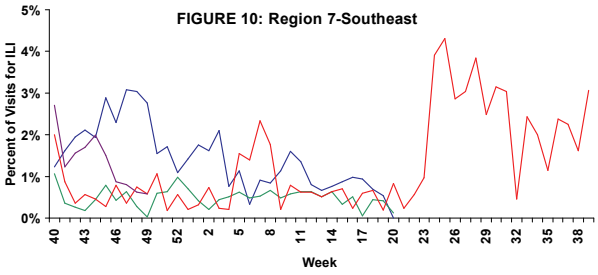


FIGURE 10: Region 7-Southeast



Graph Legend

- 2006-2007*
- 2007-2008*
- 2008-2009
- 2009-2010*

*There is no week 53 during the 2006-07, 2007-08, and 2009-10 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

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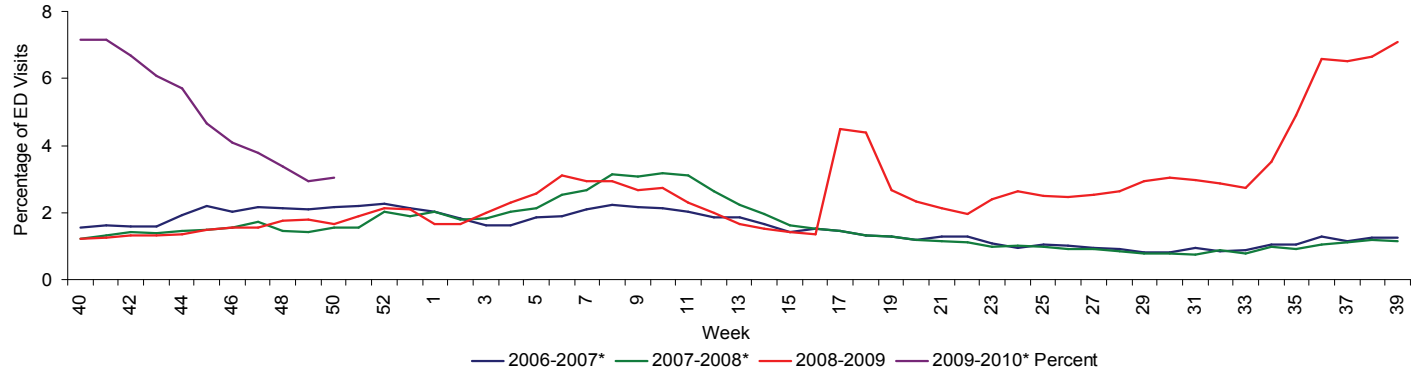
Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data daily from 132 hospital emergency departments (ED). These data are processed into 11 different syndrome categories based on the patient's 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 8-9 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 48. 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. 16, 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. 16, 2009

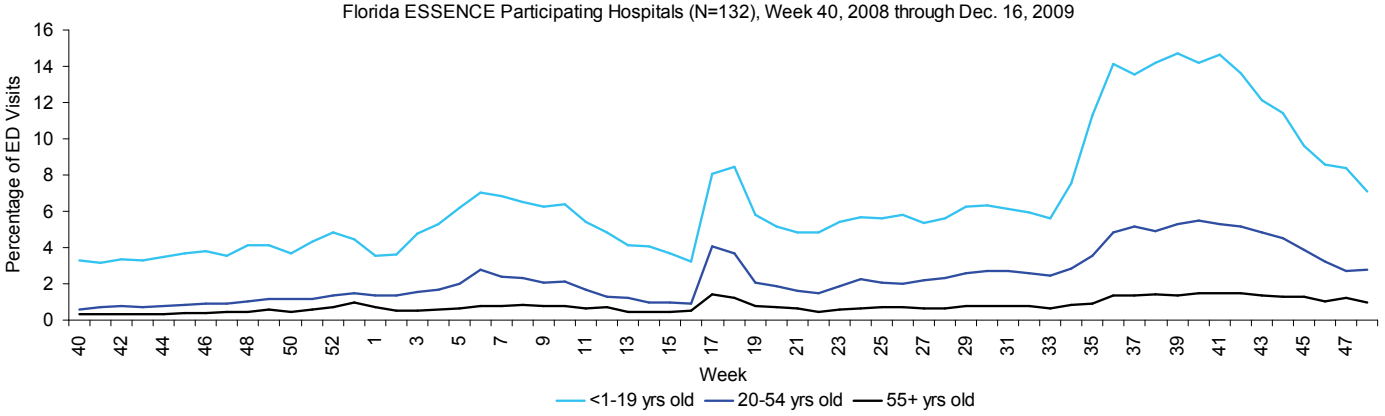
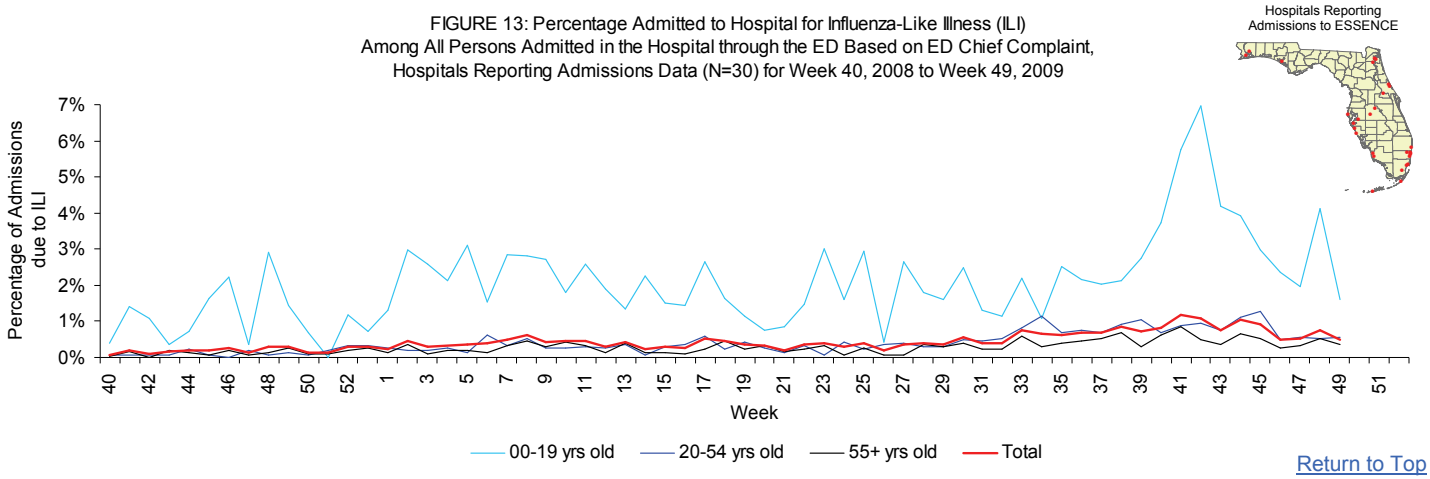


FIGURE 13: Percentage Admitted to Hospital for Influenza-Like Illness (ILI) Among All Persons Admitted in the Hospital through the ED Based on ED Chief Complaint, Hospitals Reporting Admissions Data (N=30) for Week 40, 2008 to Week 49, 2009



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The figures below describe emergency department chief complaint data from ESSENCE by Domestic Security Task Force Region (Region 2 does not have any participating facilities in ESSENCE and therefore is not displayed). All regions with reporting hospitals show very large increases in flu activity in the weeks coinciding with school opening (week 34). At this time it appears that most regions have stabilized or are showing decreases in ED visits categorized as ILI. At the time novel H1N1 influenza was first identified (week 17, 2009), data from 5 of the 7 regions indicated large increases in patients presenting for care of influenza-like illness. Our interpretation of this peak is that it includes many individuals who we may classify as "worried well," others may be truly ill with a respiratory illness but in the absence of swine flu news may have stayed home to get better, and then of course some of these probably had some strain of influenza. The ILI activity seen after week 21 is more likely to be associated with actual 2009 H1N1 influenza infection.

MAP 2: Hospitals Reporting Emergency Department (ED) Data to Florida ESSENCE, December 16, 2009 (N=132)

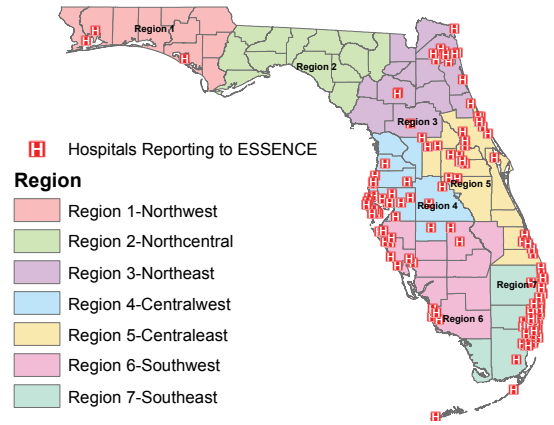


FIGURE 14: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=3), Week 40, 2007 through Dec 16, 2009

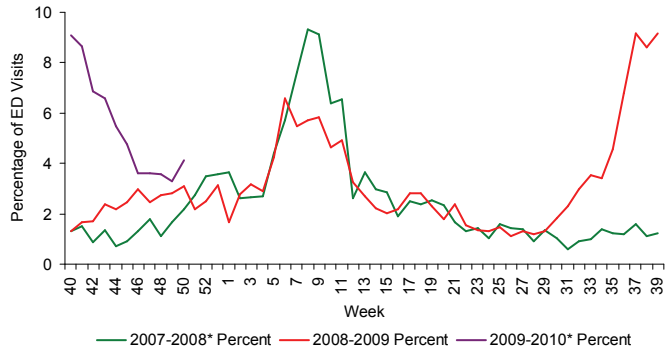


FIGURE 15: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2007 through Dec. 16, 2009

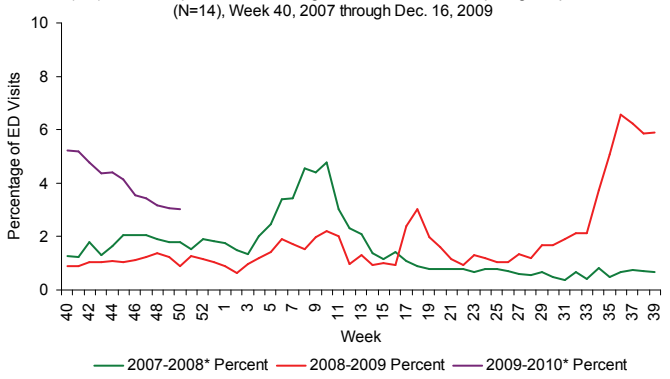


FIGURE 16: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=29), Week 40, 2006 through Dec. 16, 2009

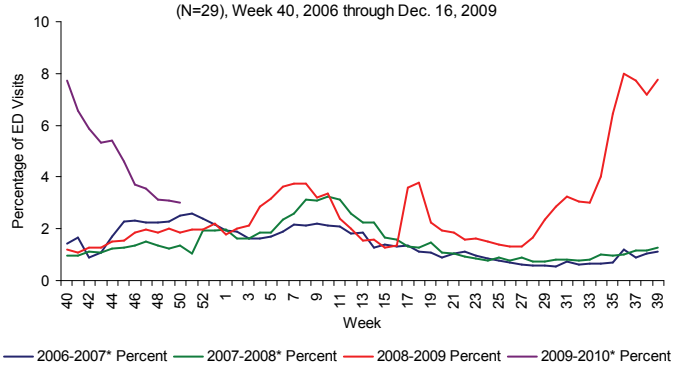


FIGURE 17: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=24), Week 40, 2007 through Dec. 16, 2009

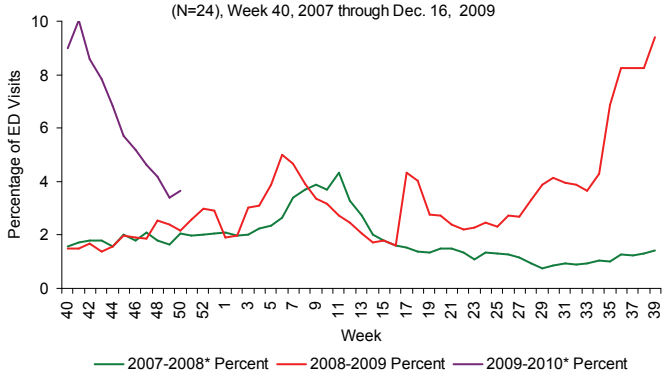


FIGURE 18: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2007 through Dec. 16, 2009

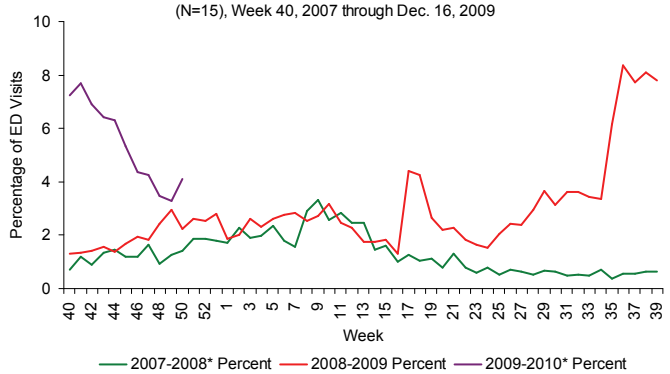
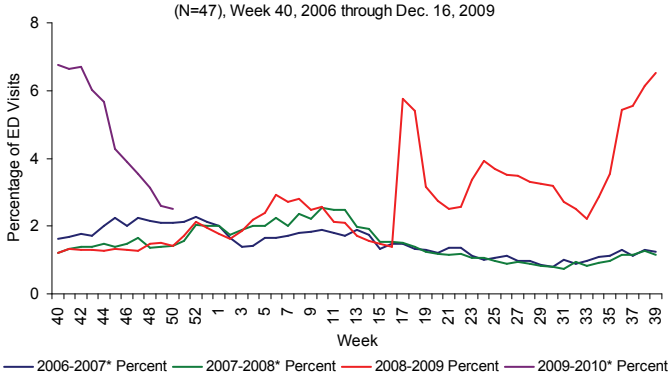


FIGURE 19: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=47), Week 40, 2006 through Dec. 16, 2009



*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.

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As of 9:30 a.m. December 15, 72 specimens with a Lab Event Date* during week 49 were tested by the Bureau of Laboratories (BOL). Of those, 10 (13.9%) were positive for influenza. 9 (90.0%) of influenza positive strains were H1N1, and 1 was Influenza A unspecified. Virtually all infections due to the new novel H1N1 virus are caused by strains that are sensitive to Tamiflu and Relenza.

A total of 198 specimens with a Lab Event Date* during week 48 have now been tested by BOL. Thirty-three (16.7%) were positive for influenza (Figure 20-22), 97% of which were novel H1N1, with one result positive for Influenza A unspecified. Since week 44 there have been three specimens that tested positive for H3 seasonal influenza A; two were in week 44 and one was in week 46. Since week 39, four previous specimens tested by BOL tested positive for influenza B; one had a lab event date of week 39, one from week 40, and two from week 44. 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 49, 2009 as Reported in Merlin by 9:30 a.m. December 15, 2009

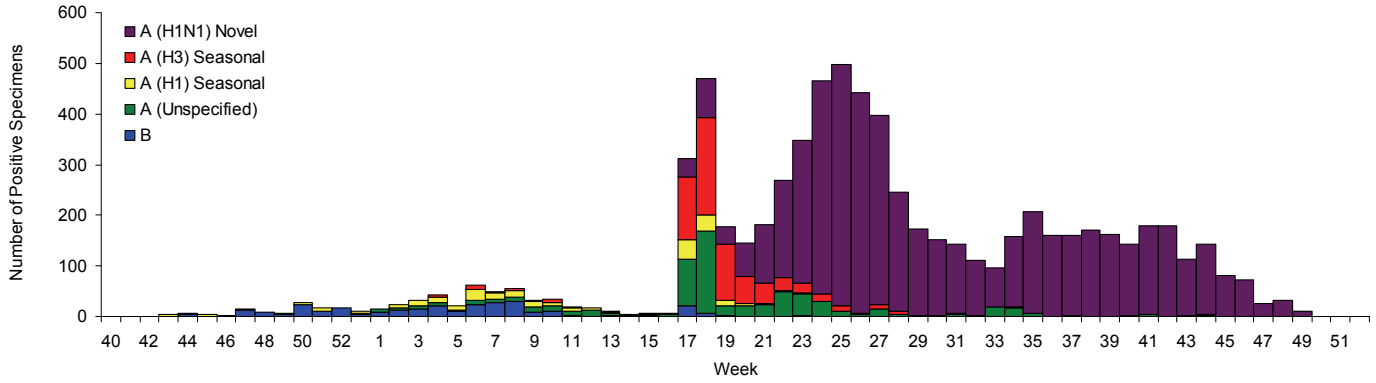


FIGURE 21: Number of Specimens Tested by Florida Bureau of Laboratories and Percent Positive for Influenza by Lab Event Date*
Week 40, 2008 to Week 49, 2009 as Reported in Merlin by 9:30 a.m. December 15, 2009

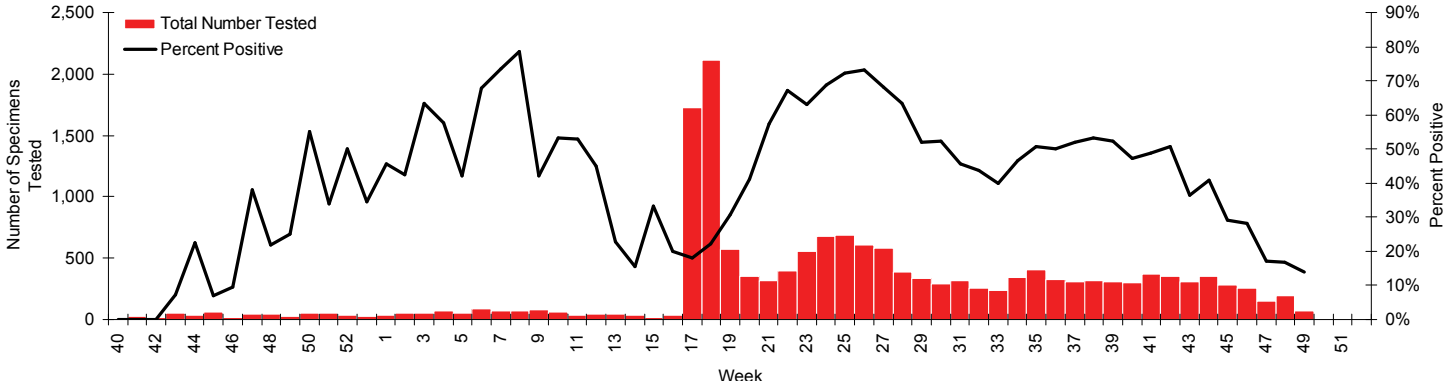
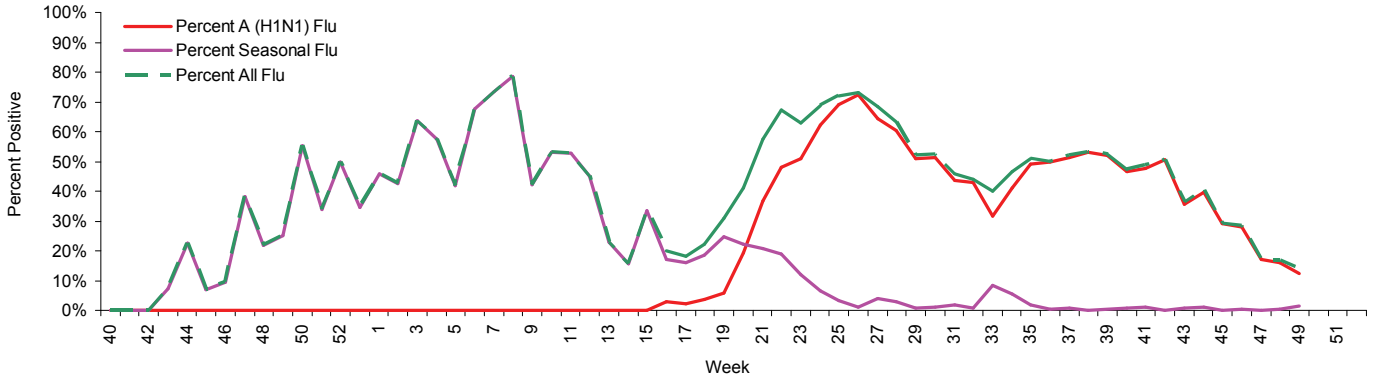


FIGURE 22: Percentage of Specimens Tested by Florida Bureau of Laboratories Positive for Influenza by Subtype by Lab Event Date*
Week 40, 2008 to Week 49, 2009 as Reported in Merlin by 9:30 a.m. December 15, 2009



*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 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

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As of 10:30 a.m. December 16, 2009, a total of 67 (100%) counties had reported their weekly level of influenza activity. This is the fourth 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 49 (ending December 12, 2009) as Reported by 10:30 a.m. December 16, 2009

Activity Level	Week 48 Number of Counties	Week 49 Number of Counties	Week 49 Counties
No Report	0	0	
No Activity	18	18	Calhoun, Columbia, Dade, Gadsden, Glades, Gulf, Hamilton, Hardee, Hernando, Holmes, Jefferson, Levy, Liberty, Madison, Monroe, Sumter, Union, Wakulla
Sporadic	37	39	Alachua, Baker, Bay, Bradford, Brevard, Charlotte, Broward, Citrus, Clay, Collier, Desoto, Dixie, Duval, Escambia, Flagler, Franklin, Gilchrist, Hendry, Highlands, Indian River, Lafayette, Lake, Lee, Leon, Marion, Martin, Okaloosa, Okeechobee, Palm Beach, Pasco, Pinellas, Putnam, St. Johns, St. Lucie, Santa Rosa, Taylor, Volusia, Walton, Washington
Localized	12	9	Hillsborough, Jackson, Manatee, Nassau, Orange, Osceola, Polk, Sarasota, Seminole
Widespread	0	1	Suwannee

Map 3: Weekly County Influenza Activity for Week 49 as Reported by 10:30 a.m. December 16, 2009

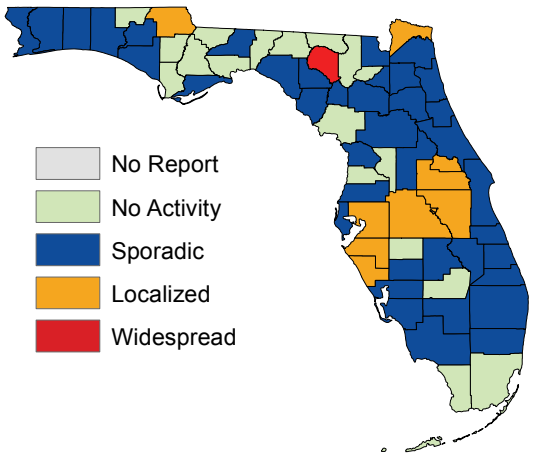
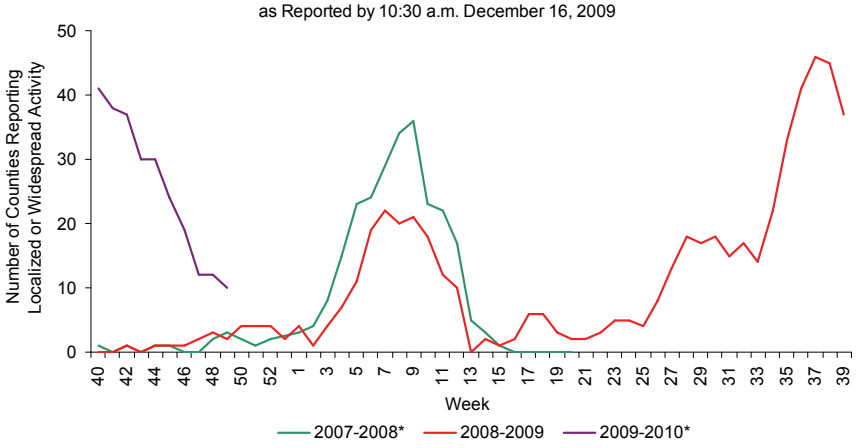


FIGURE 23: Number of Counties Reporting Localized or Widespread Actitvity, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-47) as Reported by 10:30 a.m. December 16, 2009



County flu activity level definitions are now available online at:
http://www.doh.state.fl.us/disease_ctrl/epi/FluActivityDef.htm

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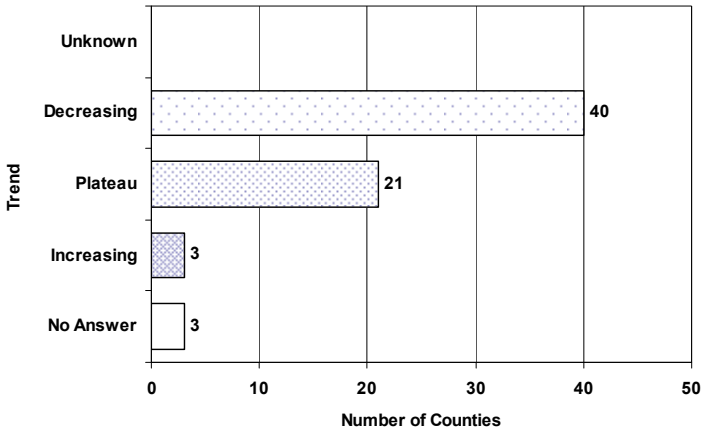
County influenza activity data is reported to the Bureau of Epidemiology through EpiGateway on a weekly basis by the county influenza coordinator. Specific information is requested about laboratory results, outbreak reports, and surveillance system activity. Figures 24-32 displayed below reflect a county's assessment of influenza activity within their county as a whole as well as influenza activity within specific settings. For the week ending December 12, 40 counties indicated that activity was decreasing, 21 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 49 as of 11:00 a.m. December 16, 2009

FIGURE 24: 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 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

Activity Levels in Various Facilities by County as Reported by County Health Department Flu Coordinators for Week 49 as of 11:00 a.m. December 16, 2009

FIGURE 25: Assessment of Influenza Activity in Schools

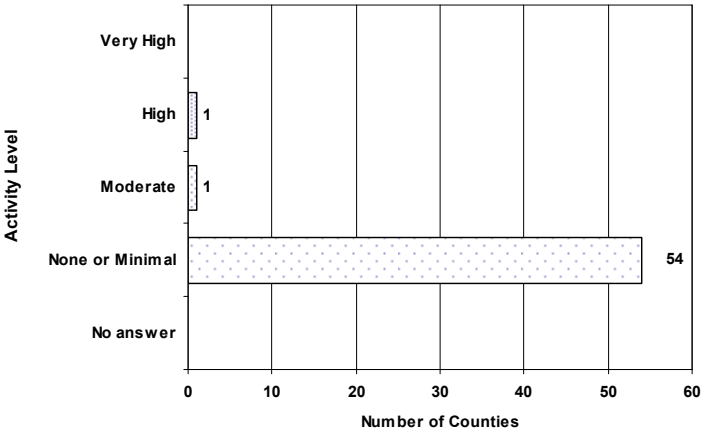
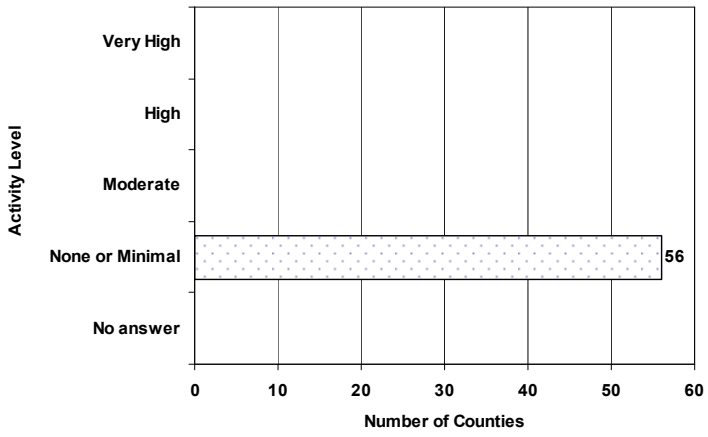


FIGURE 26: Assessment of Influenza Activity in Jails/Prisons



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Assessment of Overall Influenza Activity Trend in County and Activity Levels in Various Facilities by County as Reported by County Health Department Flu Coordinators for Week 49 as of 11:00 a.m. December 16, 2009

FIGURE 27: Assessment of Influenza Activity in Retirement Facilities

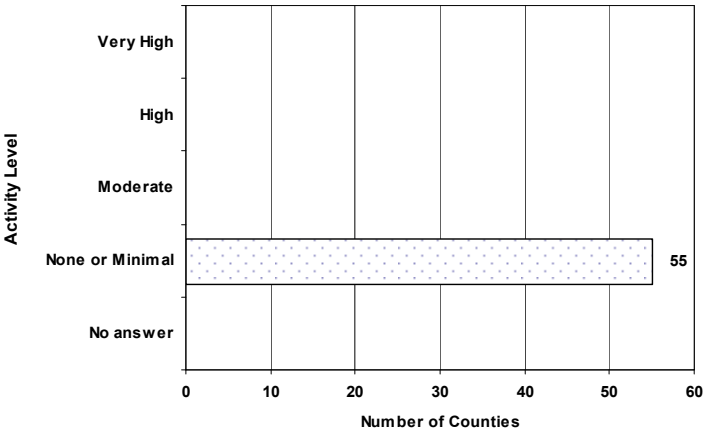


FIGURE 28: Assessment of Influenza Activity in Nursing Homes

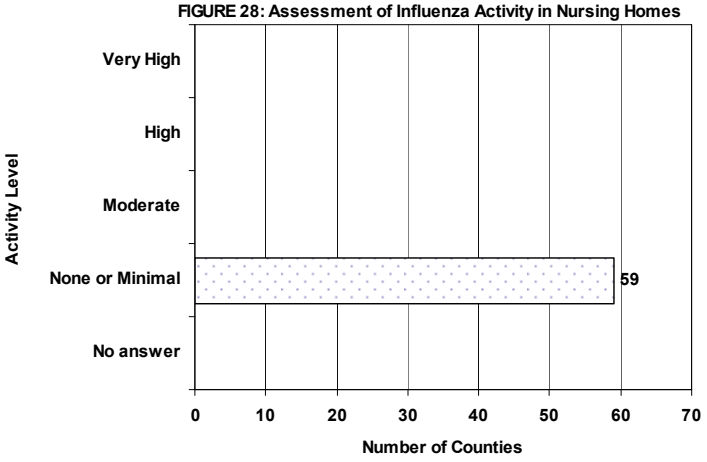


FIGURE 29: Assessment of Influenza Activity in Health Care Facilities

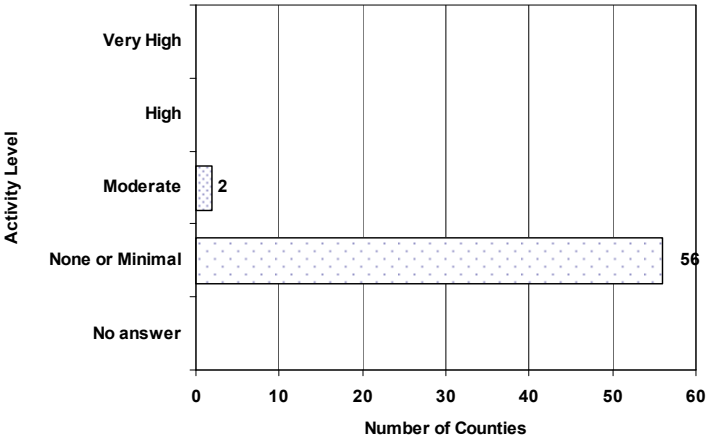


FIGURE 30: Assessment of Influenza Activity in Daycare Centers

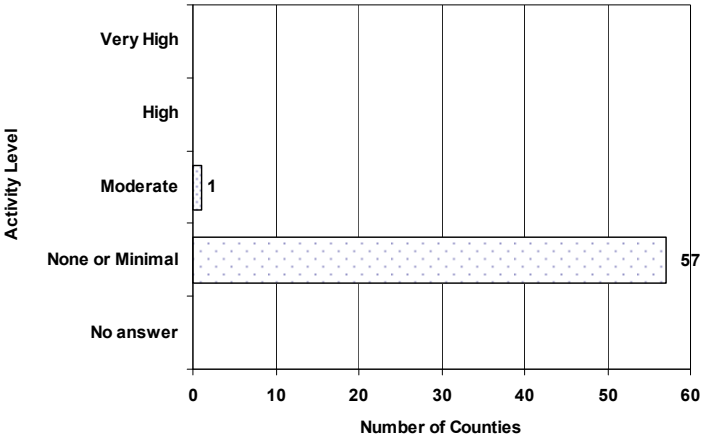


FIGURE 31: Assessment of Influenza Activity in Businesses

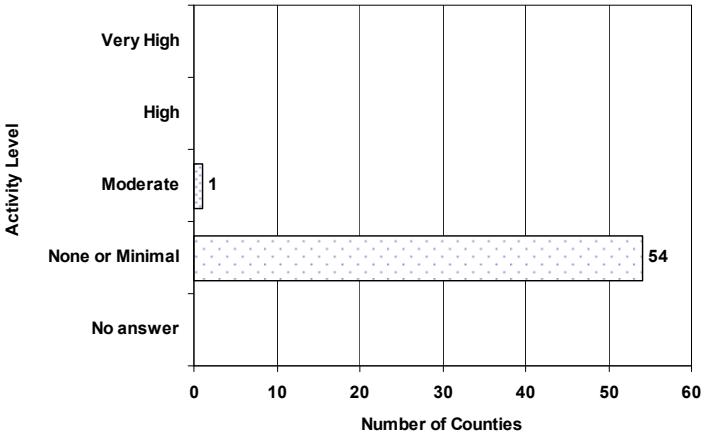
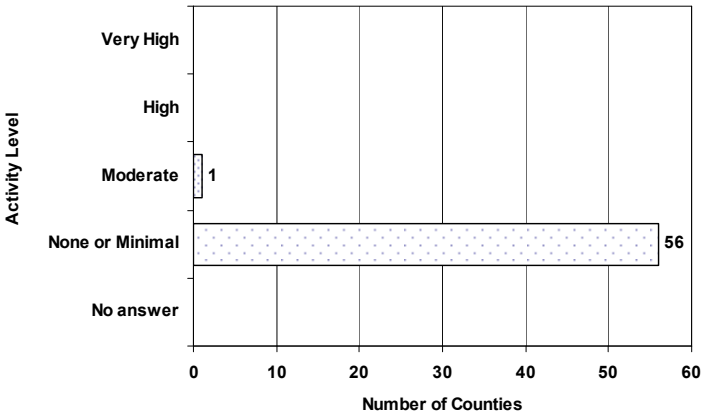


FIGURE 32: Assessment of Influenza Activity in State or Local Government Offices



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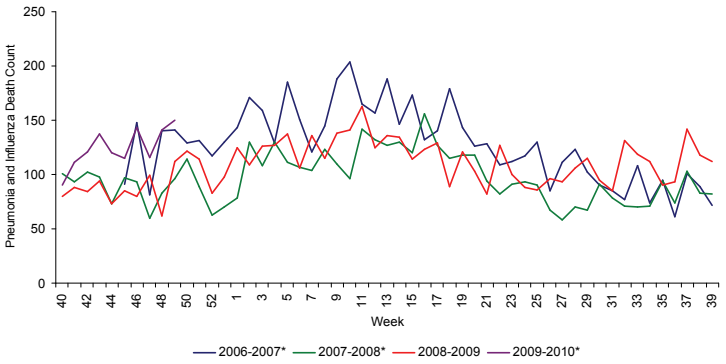
The Florida Department of Health started the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS) in 2006 in order to more timely assess the number of pneumonia and influenza deaths occurring in the state. This system was modeled on the CDC's 122 cities surveillance system. Each week, 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 49 (ending December 12, 2009) as of December 16 at 8:00 a.m., 150 deaths had been reported; 164 deaths were expected for week 49, indicating that there were no excess deaths. The majority of the deaths are in those aged 45 years and older.

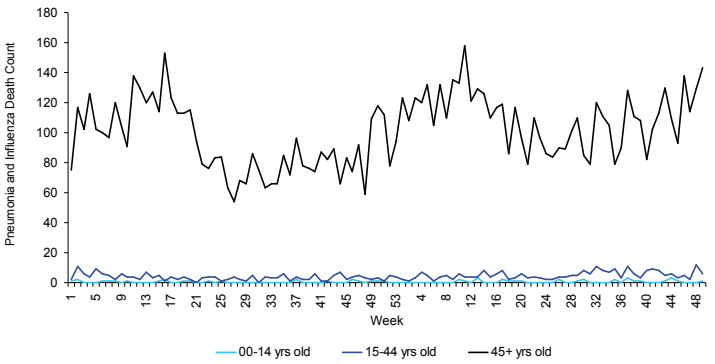
FIGURE 33: Pneumonia and Influenza Deaths for 24 Florida Counties, 2006-2007 (Weeks 40-39), 2007-2008 (Weeks 40-39), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-48) as Reported to FPIMSS by 8:00 a.m. December 16, 2009



*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.

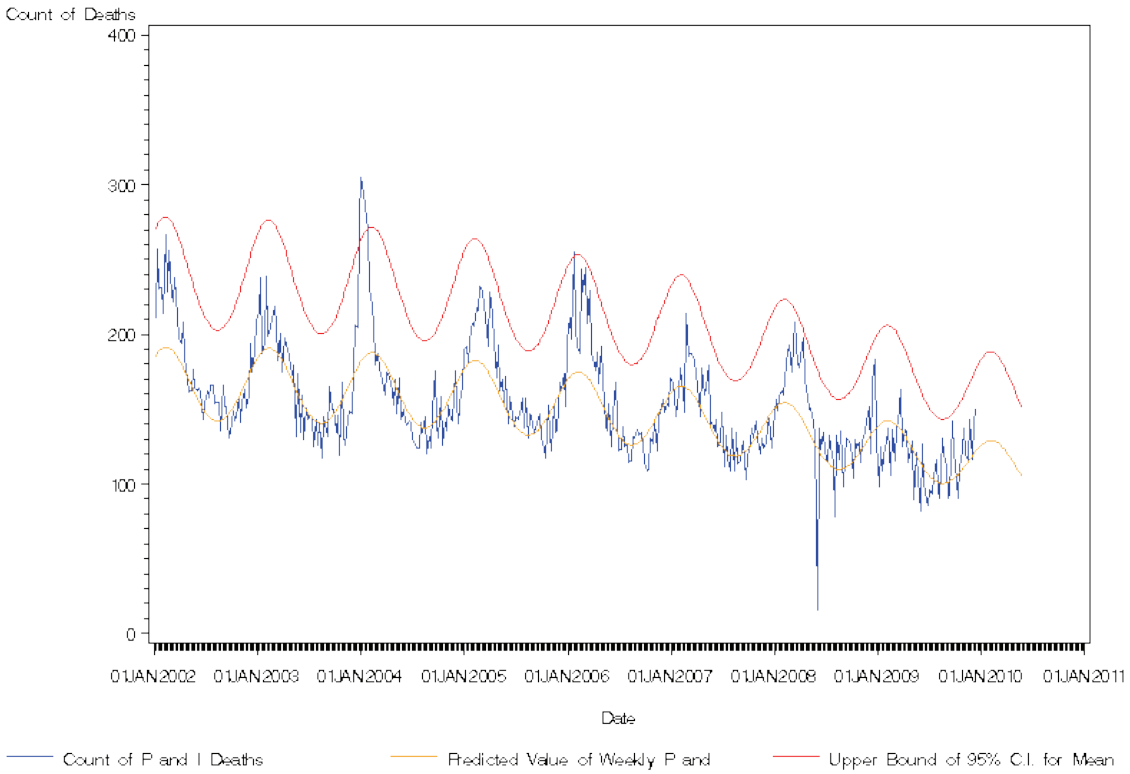
All of the 24 participating counties reported their data for week 49. There were no excess deaths.

FIGURE 34: Pneumonia and Influenza Deaths in 3 Age Groups for 24 Florida Counties, Week 1, 2008-Week 49, 2009 as Reported to FPIMSS by by 8:00 a.m. December 16, 2009



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 49.

FIGURE 35: Pneumonia and Influenza Deaths for 24 Florida Counties, Serfling Model January 1, 2002-December 12, 2009 as Reported to FPIMSS as of 8:00 a.m. December 16, 2009



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Although the number of cases, hospitalizations*, and deaths continues to rise, there is no evidence that the virus has changed to a more virulent form, either in Florida, the rest of the U.S., or elsewhere in the world.

TABLE 4: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by County as of 12:00 Noon December 15, 2009

County	Number	Percent	ICU (percent of hospitalized)
Total	**1178**	**100.0**	**480 (40.7)**
Alachua	15	1.3	12 (80.0)
Baker	2	0.2	2 (100.0)
Bay	2	0.2	0 (0.0)
Brevard	15	1.3	9 (60.0)
Broward	89	7.6	33 (37.1)
Calhoun	2	0.2	0 (0.0)
Charlotte	5	0.4	1 (20.0)
Citrus	13	1.1	2 (15.4)
Clay	4	0.3	1 (25.0)
Collier	4	0.3	3 (75.0)
Columbia	3	0.3	0 (0.0)
Dade	447	37.9	137 (30.6)
Duval	55	4.7	33 (60.0)
Escambia	5	0.4	0 (0.0)
Flagler	1	0.1	0 (0.0)
Gadsden	4	0.3	1 (25.0)
Hardee	2	0.2	0 (0.0)
Hendry	3	0.3	0 (0.0)
Hernando	7	0.6	3 (42.9)
Highlands	9	0.8	2 (22.2)
Hillsborough	43	3.7	18 (41.9)
Indian River	4	0.3	0 (0.0)
Lake	7	0.6	1 (14.3)
Lee	31	2.6	21 (67.7)
Levy	3	0.3	0 (0.0)
Manatee	14	1.2	6 (42.9)
Marion	9	0.8	2 (22.2)
Martin	7	0.6	4 (57.1)
Monroe	6	0.5	0 (0.0)
Nassau	5	0.4	5 (100.0)
Okaloosa	8	0.7	7 (87.5)
Okeechobee	2	0.2	0 (0.0)
Orange	102	8.7	42 (41.2)
Osceola	6	0.5	2 (33.3)
Palm Beach	91	7.7	43 (47.3)
Pasco	4	0.3	0 (0.0)
Pinellas	28	2.4	20 (71.4)
Polk	26	2.2	15 (57.7)
Putnam	4	0.3	3 (75.0)
Santa Rosa	5	0.4	1 (20.0)
Sarasota	15	1.3	9 (60.0)
Seminole	22	1.9	9 (40.9)
St. Johns	7	0.6	2 (28.6)
St. Lucie	11	0.9	8 (72.7)
Sumter	1	0.1	1 (100.0)
Taylor	2	0.2	1 (50.0)
Volusia	27	2.3	20 (74.1)
Walton	1	0.1	1 (100.0)

*Please note that under the current surveillance strategy, case reporting is only required for confirmed or probable cases of novel H1N1 influenza in a) patients with life-threatening illness, b) pregnant women who are hospitalized, and c) deaths. *Use caution when interpreting hospitalization data, as only hospitalized patients with life-threatening illness are reportable and there is some variability in communities as to how "life-threatening illness" is interpreted.*

TABLE 5: Recent Hospitalizations* in Novel H1N1 Influenza Cases by County, 12:00 Noon December 8, 2009 to 12:00 Noon December 15, 2009

County	Number	Percent	ICU (percent of hospitalized)
Total	**37**	**100.0**	**15 (40.5)**
Charlotte	1	2.7	0 (0.0)
Citrus	1	2.7	1 (100.0)
Dade	15	40.5	4 (26.7)
Duval	1	2.7	1 (100.0)
Hendry	1	2.7	0 (0.0)
Hillsborough	5	13.5	2 (40.0)
Martin	1	2.7	1 (100.0)
Nassau	1	2.7	1 (100.0)
Orange	1	2.7	0 (0.0)
Palm Beach	4	10.8	1 (25.0)
Sarasota	2	5.4	1 (50.0)
St. Lucie	3	8.1	3 (100.0)
Taylor	1	2.7	0 (0.0)

The number of hospitalizations in cases reported each week since July 26, 2009 has ranged from 13 hospitalizations (week 33) to 54 hospitalizations (week 40) with an average of 30.6 hospitalizations in cases reported per week.

TABLE 6: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by Age as of 12:00 Noon December 15, 2009

Age group	Number	Percent	Hospitalizations per million population	NO underlying condition^	ICU
Total	**1178**	**100.0**	**61.6**	**163 (13.8)**	**480 (40.7)**
0-4	160	13.6	141.5	36 (22.5)	51 (31.9)
5-24	328	27.8	68.4	34 (10.4)	103 (31.4)
25-49	390	33.1	62.9	65 (16.7)	175 (44.9)
50-64	233	19.8	63.5	23 (9.9)	123 (52.8)
65+	67	5.7	20.2	5 (7.5)	28 (41.8)

^As of week 41, underlying medical conditions include pregnancy unless otherwise noted.

TABLE 7: Cumulative hospitalizations* in all Pregnant Women with Novel H1N1 Influenza Cases by Status of Underlying Medical Conditions Other than Pregnancy as of 12:00 Noon December 15, 2009

Underlying medical condition status	Number	Percent	ICU	Death
Total	**143**	**100.0**	**39 (27.3)**	**7 (4.9)**
No underlying medical condition	71	49.7	22 (31.0)	3 (4.2)
Underlying medical condition	30	21.0	9 (30.0)	3 (10.0)
Unknown	42	29.4	8 (19.0)	1 (2.4)

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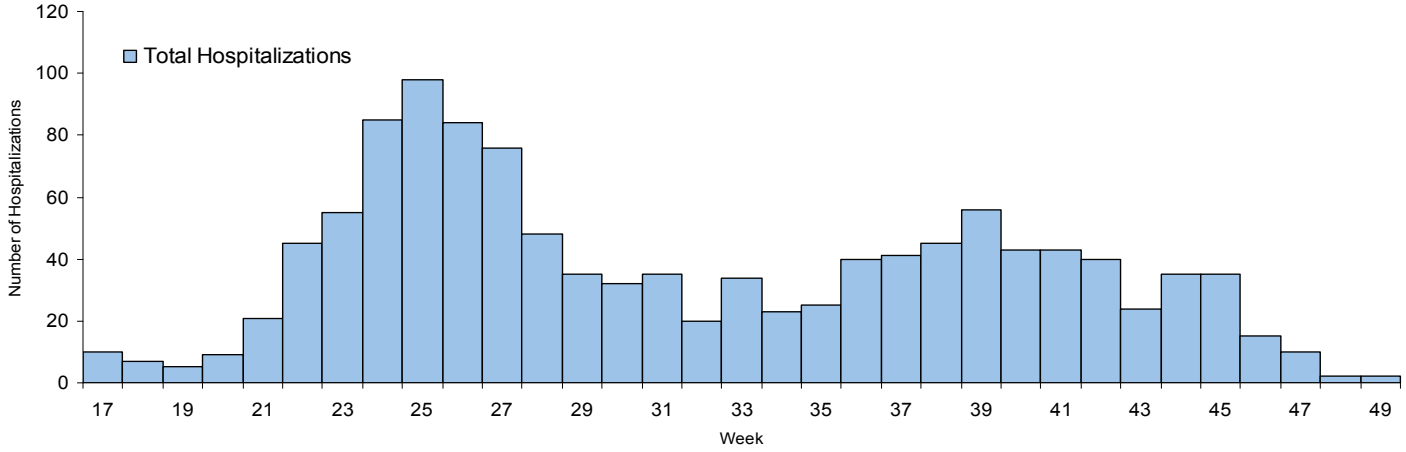
Figure 36 shows H1N1 hospitalizations with life-threatening illness by week, beginning with the first week in which confirmed or probable cases of novel H1N1 influenza in patients with life-threatening illness were reportable.

Figure 36: Cumulative Hospitalizations in Novel H1N1 Influenza Cases by Event Date*
Week 17 (ending 05/02/2009) to Week 49 (ending 12/12/09)



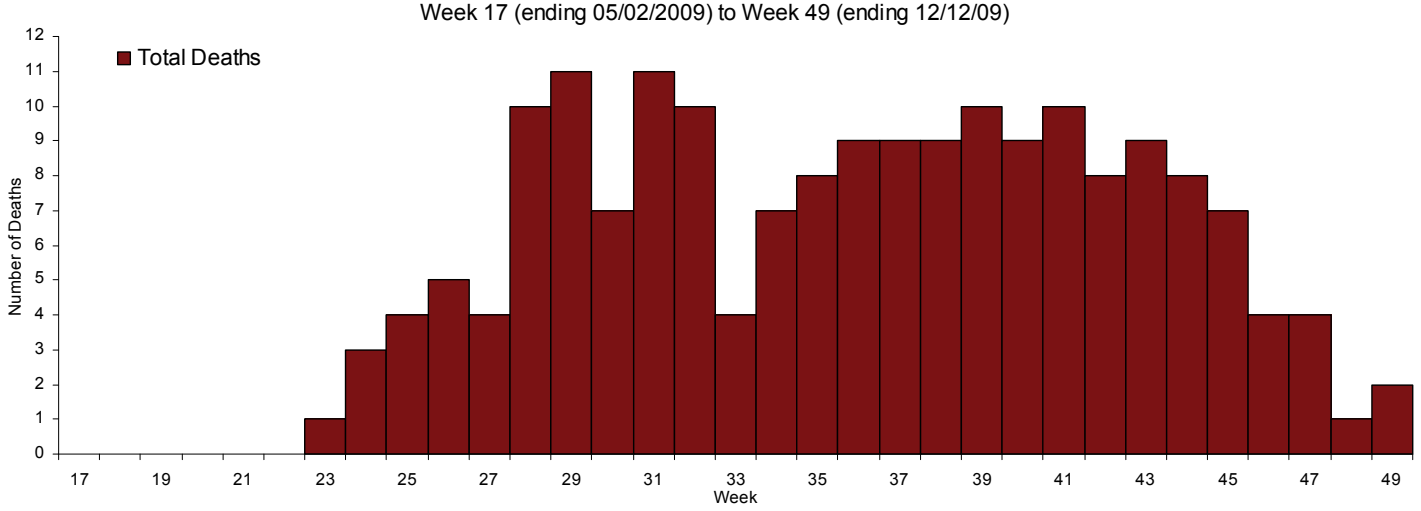
*Please note that event date is defined as the earliest of the following dates associated with the case: date of onset, date of diagnosis, lab report date, or date reported to CDH.

XI. NOTIFIABLE DISEASE REPORTS: NOVEL H1N1 DEATHS

All deaths in reported laboratory-confirmed H1N1 Influenza cases are presenting in the following graph and tables.

Figure 37 displays the number of deaths in persons with laboratory-confirmed novel H1N1 influenza by week of death, beginning with the first week a death with H1N1 was reported.

Figure 37: Cumulative Deaths in Novel H1N1 Influenza Cases by Week of Death
Week 17 (ending 05/02/2009) to Week 49 (ending 12/12/09)



Note that the exact contribution of H1N1 to the death is variable and may be unknown, as many of these deaths occur in people with complicated medical histories. Novel influenza A H1N1 infection would be coded as the underlying or primary cause on a death certificate for **some but not all** of these deaths. About 20 percent of deaths due to H1N1 are in persons with no underlying conditions.

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TABLE 8: Cumulative deaths in Novel H1N1 Influenza Cases by County as of 12:00 Noon December 15, 2009

County	Number	Percent
Total	**184**	**100.0**
Alachua	6	3.3
Baker	1	0.5
Brevard	5	2.7
Broward	11	6.0
Calhoun	1	0.5
Charlotte	2	1.1
Citrus	1	0.5
Clay	1	0.5
Dade	34	18.5
Desoto	1	0.5
Duval	13	7.1
Escambia	1	0.5
Hernando	2	1.1
Highlands	2	1.1
Hillsborough	13	7.1
Indian River	1	0.5
Lake	1	0.5
Lee	5	2.7
Levy	2	1.1
Manatee	2	1.1
Marion	1	0.5
Monroe	2	1.1
Okaloosa	2	1.1
Okeechobee	1	0.5
Orange	11	6.0
Osceola	1	0.5
Palm Beach	12	6.5
Pasco	3	1.6
Pinellas	11	6.0
Polk	7	3.8
Putnam	1	0.5
Santa Rosa	1	0.5
Sarasota	5	2.7
Seminole	4	2.2
St. Johns	2	1.1
St. Lucie	7	3.8
Sumter	1	0.5
Taylor	1	0.5
Volusia	5	2.7
Walton	1	0.5

TABLE 9: Recent Deaths in Novel H1N1 Influenza Cases by County, 12:00 Noon December 8, 2009 to 12:00 Noon December 15, 2009

County	Number	Percent
Total	**4**	**100.0**
Hillsborough	1	25.0
Levy	1	25.0
Marion	1	25.0
Palm Beach	1	25.0

TABLE 10: Cumulative deaths in Novel H1N1 Influenza Cases by Age as of 12:00 Noon December 15, 2009

Age	Number	Percent	Deaths per million population	NO underlying condition^
Total	**184**	**100**	**9.6**	**31 (16.8)**
0-4	6	3.3	5.3	0 (0.0)
5-24	21	11.4	4.4	7 (33.3)
25-49	75	40.8	12.1	18 (24.0)
50-64	67	36.4	18.3	6 (9.0)
65+	15	8.2	4.5	0 (0.0)

^As of week 41, underlying medical conditions include pregnancy unless otherwise noted.

The number of deaths reported each week since July 26, 2009 has ranged from 2 deaths (week 37) to 13 deaths (week 38) with an average of 7.7 deaths reported per week.

The case definition for novel H1N1 deaths can be found at: http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/ReportingDeaths8-11.pdf

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XII. NOTIFIABLE DISEASE REPORTS: INFLUENZA-ASSOCIATED PEDIATRIC MORTALITY

Influenza-associated deaths among those <18 years of age and/or post-influenza infection encephalitis are reportable; case report forms can be accessed at: http://www.doh.state.fl.us/disease_ctrl/epi/topicscrforms.htm.

Note that the case definition for pediatric influenza mortality is different than the case definition for mortality with novel H1N1. Pediatric influenza-associated mortality cases are only counted after influenza is determined to be the cause of death.

The case definition is available at: http://www.cdc.gov/ncphi/disss/nndss/casedef/Influenza-Associated_current.htm

Influenza-Associated Pediatric Mortality

- No influenza-associated deaths among those <18 years of age were reported in Week 49, for a total of 5 cases for the 2009-2010 season.
- 11 influenza-associated deaths among those <18 years of age were reported for the 2008-2009 influenza season (week 40, 2008 to week 39, 2009).

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423 confirmed or suspect outbreaks of novel H1N1 influenza or ILI have been reported as of December 12, 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%).

No confirmed or suspect outbreaks of novel influenza A (H1N1) reported during week 49 (ending December 12, 2009)
During week 49, There were no new confirmed or suspect outbreaks of novel H1N1. 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 no outbreaks this week. This is the second week since May with no ILI outbreaks reported into EpiCom.

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

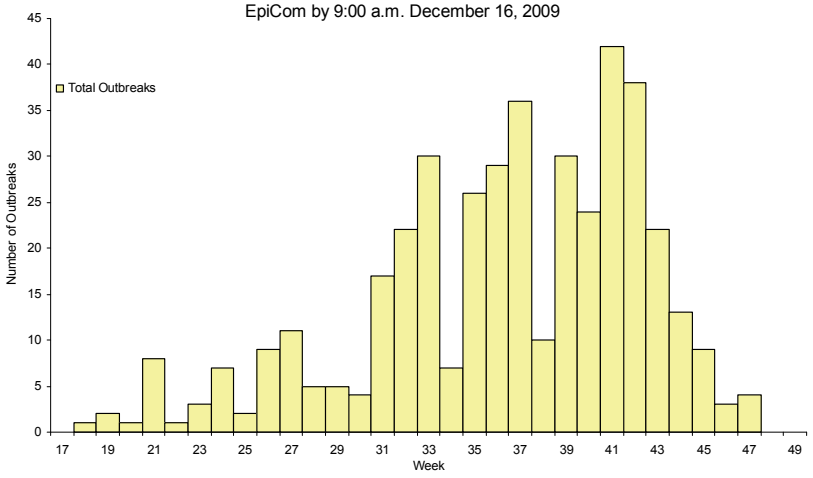
TABLE 11: Cumulative outbreaks Reported via EpiCom by County as of Week 49 (Ending December 12, 2009)

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%
Total	**423**	**100.0%**

TABLE 12: Cumulative outbreaks Reported via EpiCom by Setting as of Week 49 (Ending December 12, 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%
Total	**423**	**100.0%**

Figure 38: Number of Influenza and ILI Outbreaks Reported into EpiCom
Week 17 (ending 05/02/2009) to Week 49 (ending 12/12/2009) as Reported into EpiCom by 9:00 a.m. December 16, 2009



Note: Outbreaks are organized by the week they were reported into EpiCom.

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