



Week 51: December 20 - December 26, 2009



I. 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 activity continued to decline in the United States during week 50. The number of states reporting widespread flu activity decreased from 11 to 7. Visits to doctors for influenza-like illness, flu-associated hospitalizations, and flu-associated deaths all declined from the previous week.

State:

- The fall wave of H1N1 appears to be over in Florida, as evidenced by influenza activity falling to levels normally seen this time of year in most of our monitoring systems. Flu activity is expected to continue for months, caused by either 2009 H1N1 viruses or regular seasonal flu viruses, although levels of activity are expected to vary during the season.
- Very few new positive laboratory results for influenza have been received in the past two weeks, but those detected are still for the 2009 H1N1 influenza A virus. Strains of the novel 2009 H1N1 influenza virus remain uniformly sensitive to the antivirals oseltamivir and zanamivir (Tamiflu and Relenza).

Weekly state influenza activity: Regional

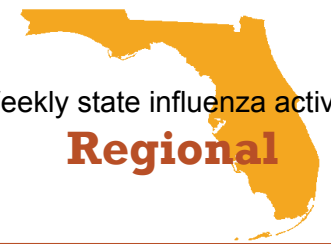
This week Florida again reported Regional influenza activity to the CDC. Multiple indicators of influenza activity in Florida show substantial reductions.

Produced on:
December 30, 2009

Posted on the Bureau of Epidemiology website: http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/Reports/reports.htm

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

Contributors: Colin Malone, MPH; Kateesha McConnell, MPH, CPH; Aaron Kite-Powell, MS; Brian Fox, MA; Kate Goodin, MPH; Leah Eisenstein, MPH; Lillian Stark, PhD, MPH, MS; Valerie Mock; Julian Everett B.S.; Subir Goyal, MBBS, MPH; Janet Hamilton, MPH; Richard Hopkins, MD, MSPH



Weekly state influenza activity:
Regional

TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 50

Measure	Difference from previous week	Current week 51	Previous week 50	Page of Report
Overall statewide activity code reported to CDC	No Change	Regional	Regional	1
Percent of visits to ILINet providers for ILI	No Change	1.6%	1.6%	2
Percent of emergency department visits (from ESSENCE) due to ILI	▲ 0.2	3.1%	2.9%	4
Percent of hospital admissions (from ESSENCE) due to ILI	No Change	3.9%	3.9%	4
Percent of laboratory specimens that were positive for influenza	▼ 1.7	8.6%	10.3%	6
Percent of positive influenza specimens that were identified as 2009 H1N1	No Change	100%	100%	6
Number of counties reporting localized influenza activity	▼ 3	3	6	7
Number of counties reporting widespread influenza activity	▼ 1	0	1	7
Number of counties reporting increasing influenza activity	▲ 1	2	1	8
Number of counties reporting decreasing influenza activity	▲ 5	42	37	8
Number of recent hospitalizations in confirmed 2009 H1N1 influenza cases	▼ 4	6	10	13
Number of recent deaths in confirmed 2009 H1N1 influenza cases	▼ 1	1	2	12
Number of ILI outbreaks reported in Epi Com	▼ 1	1	2	14

In this Issue:

Summary	1
Outpatient Influenza-like Illness Surveillance Network (ILINet)-Statewide	2
Outpatient Influenza-like Illness Surveillance Network (ILINet)-Regional	3
ESSENCE Syndromic Surveillance Summary-Statewide	4
ESSENCE Syndromic Surveillance Summary-Regional	5
Florida Bureau of Laboratories Viral Surveillance	6
County Influenza Activity	7
New County Influenza Activity	8
Florida Pneumonia and Influenza Mortality Surveillance (FPIMSS)	10
Summary of Notifiable Disease Reports and Outbreaks	11
Notifiable Disease Reports: Influenza-Associated Pediatric Mortality	11
Notifiable Disease Reports-Novels H1N1-Deaths	12
Notifiable Disease Reports-Novels H1N1-Hospitalizations	13
Reports of Influenza or Influenza-like Illness (ILI) Outbreaks	14

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 40-51)

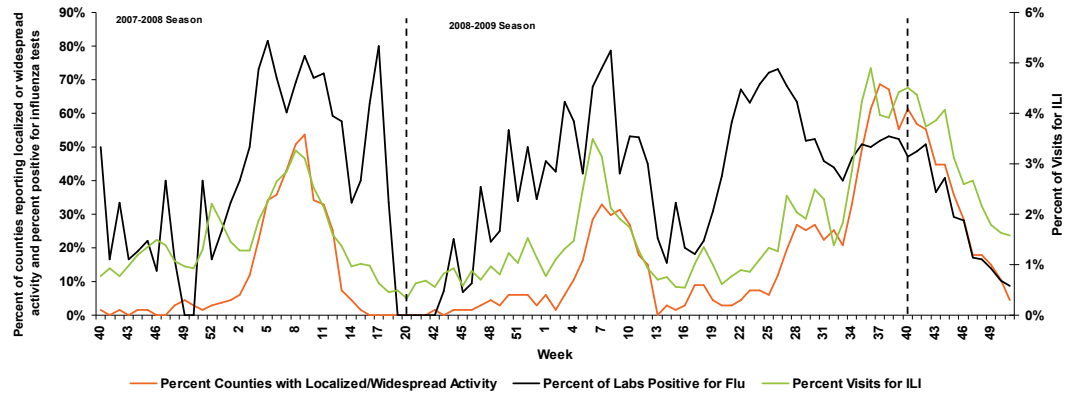


FIGURE 1 shows the progression of the 2007-2008 and 2008-2009 Florida influenza seasons as monitored by three surveillance systems: ILINet, Bureau of Laboratories viral surveillance, and county activity levels.

[Return to Top](#)

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 40-51) as Reported by 2:00 p.m. December 29, 2009

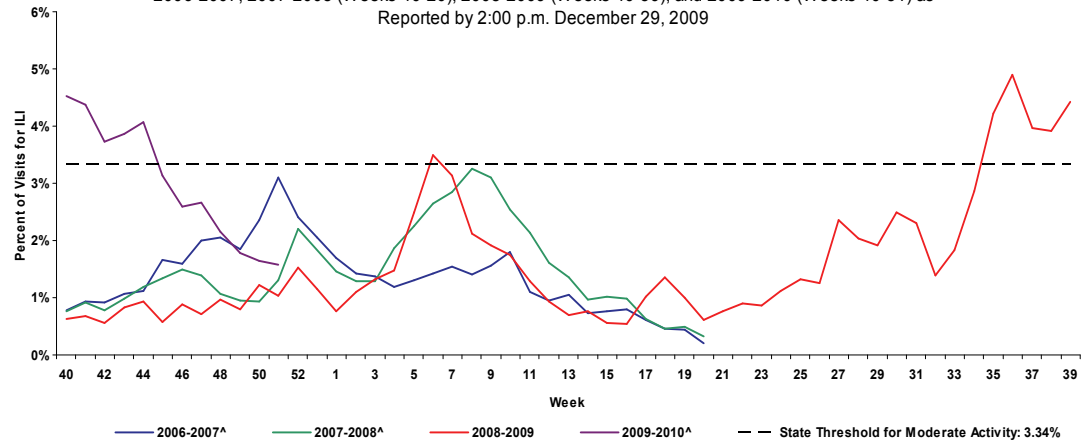


FIGURE 2 shows the percentage of visits for influenza-like illness* reported by ILINet Sentinel Providers Statewide.

Week 51 is the 7th week in a row that Florida has been below the threshold for moderate activity.

*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 patient visits for ILI during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with 10% or greater 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.

FIGURE 3: Influenza-like Illness (ILI) Visit Counts Reported by ILINet Sentinel Providers Statewide by Age Group Week 40, 2008-Week 51, 2009 as Reported to ILINet by 2:00 p.m. December 29, 2009

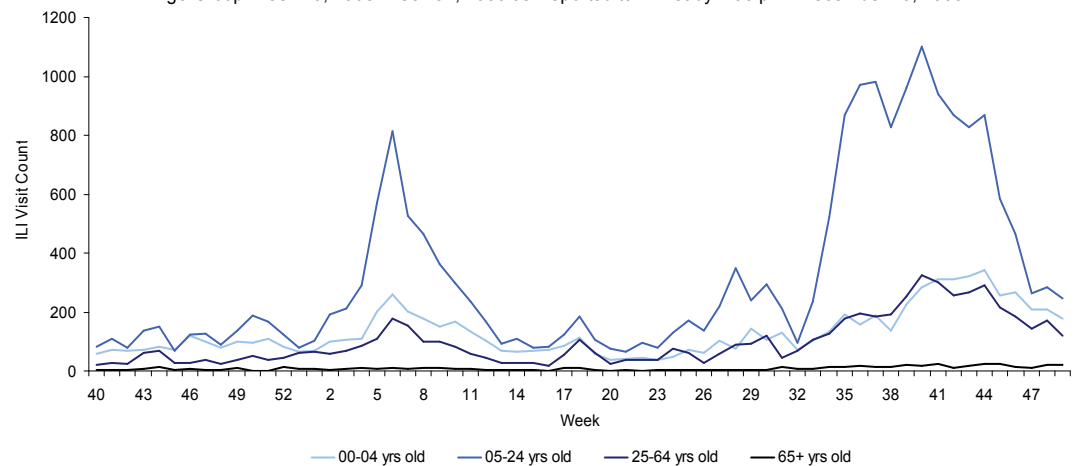


FIGURE 3 shows influenza-like illness (ILI) visit counts reported by ILINet sentinel providers statewide by age group.

*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.

[Return to Top](#)

MAP 1: RDSTF Regions for ILINet Data

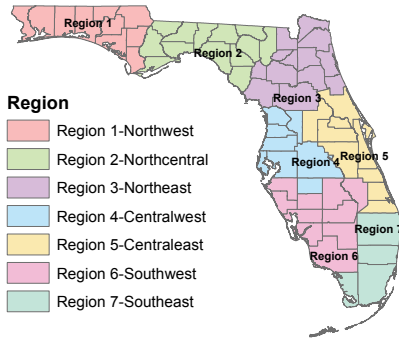


TABLE 2: ILINet Providers and Percent of Visits for ILI by Region, Week 51, as Reported by 2:00 p.m. December 29, 2009

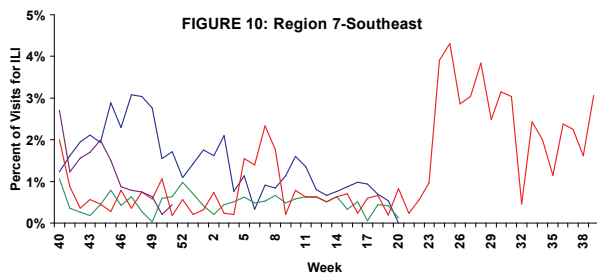
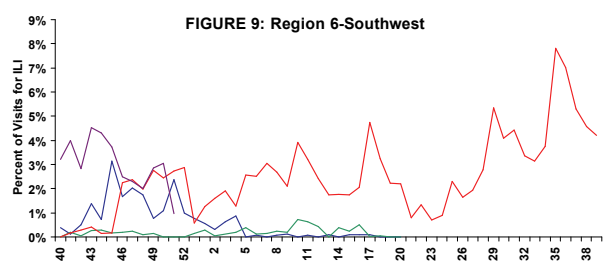
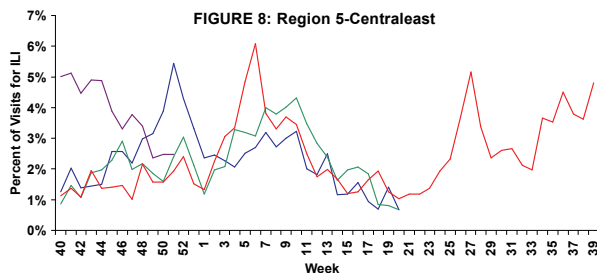
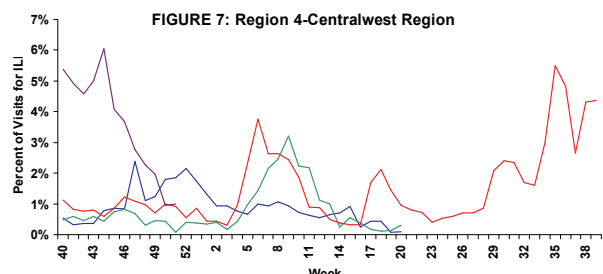
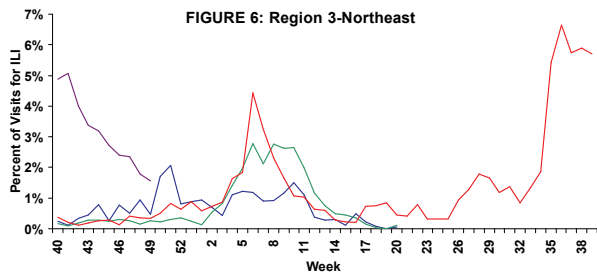
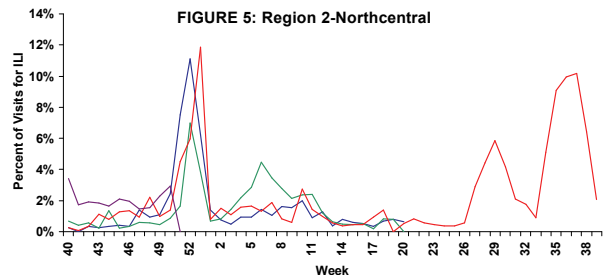
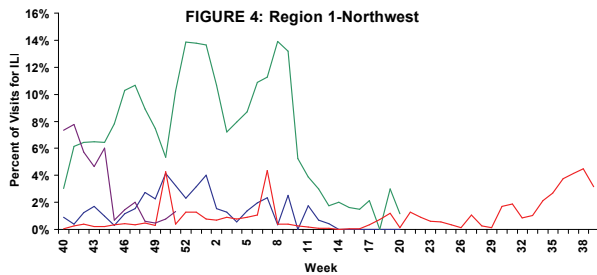
Region	Number of Participating	Providers that Reported	Percent Visits for ILI
Region 1-Northwest	19	4	21.05%
Region 2-Northcentral	5	1	20.00%
Region 3-Northeast	23	9	39.13%
Region 4-Centralwest	40	12	30.00%
Region 5-Centraleast	50	11	22.00%
Region 6-Southwest	20	3	15.00%
Region 7-Southeast	25	5	20.00%
Total	182	45	24.73%

TABLE 2 shows the ILI activity by Regional Domestic Security Task Force (RDSTF) as reported by Florida ILINet physicians for week 51 (ending December 27, 2009).

FIGURE 4 - FIGURE 10 include ILI activity as reported by sentinel physicians for the 2006-2007, 2007-2008, 2008-2009, and 2009-2010 seasons.

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. The decrease in percentage of visits due to ILI in in Region 2 during week 51 should be interpreted with caution due to the low number of providers and low number of patient visits during week 51. Numbers will change as more data are received.

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 40-51) as Reported by 2:00 p.m. December 29, 2009



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.

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. Thirty facilities participating in ESSENCE have been able to provide historical admissions data and are included here.

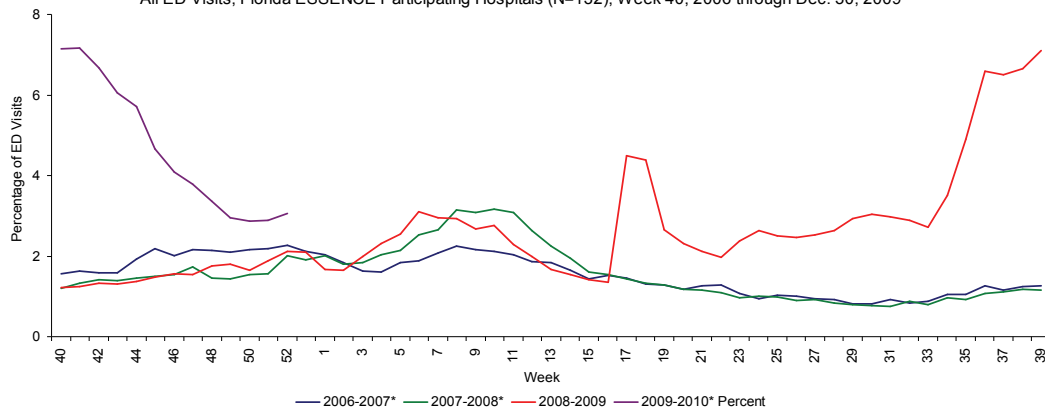
FIGURE 11 shows ESSENCE data on ILI visits to Emergency Departments as a percentage of all ED Visits.

Overall activity for influenza-like illness reported in ESSENCE remains slightly above expected levels for this time of year.

The majority of the increase in ED visits is occurring in younger age groups. In week 51 the overall percent of ILI visits as a percentage of ED visits increased slightly. In the last 9-10 weeks the percent of ED visits has either stabilized or has declined in the majority of regions and age groups, although slight increases in all age groups and some regions were seen in week 51. These data are based on the patient's chief complaint and may not reflect the actual diagnosis.

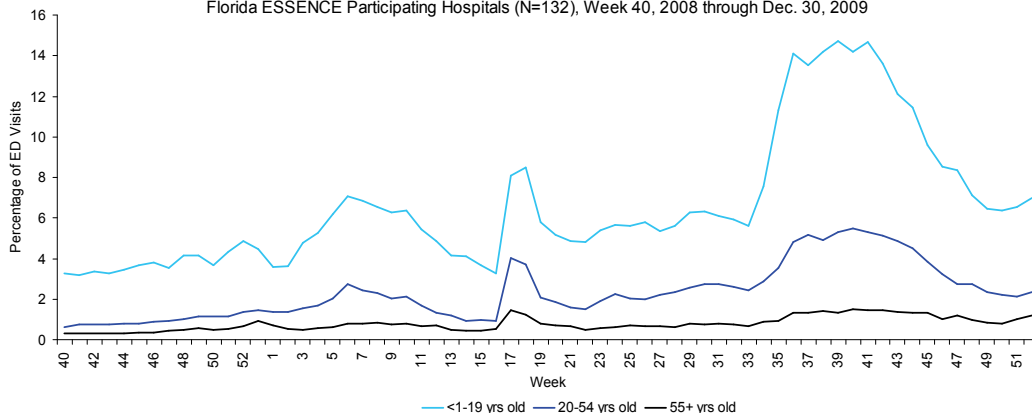
FIGURE 12 shows percentage of ILI among all ED visits by age group.

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. 30, 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. 30, 2009



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

Hospitals Reporting Admissions to ESSENCE

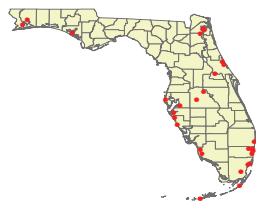


FIGURE 13: Percentage Admitted to Hospital for Influenza-Like Illness (ILI) Among All Persons Admitted in the Hospital through the ED Based on ED Chief Complaint, Hospitals Reporting Admissions Data (N=30) for Week 40, 2008 to Week 51, 2009

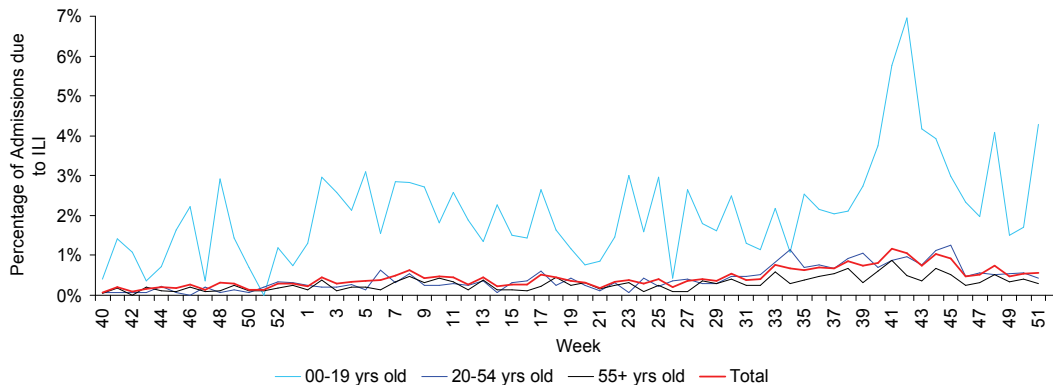


FIGURE 14 - FIGURE 19 describe emergency department chief complaint data from ESSENCE by Domestic Security Task Force Region (Region 2 does not have any participating facilities in ESSENCE and therefore is not displayed).

- Most regions' percentage of ILI among emergency department (ED) visits have stabilized and are levels similar to normal influenza seasons, although in 3 regions slight increases were seen for week 51.
- All regions with reporting hospitals show very large increases in flu activity in the weeks coinciding with school opening (week 34).
- When novel H1N1 influenza was first identified (week 17, 2009), 5 of 7 regions showed large increases in patients presenting for care of influenza-like illness. This peak may include many "worried well," as well as those with actual respiratory illness or influenza.
- 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 30, 2009 (N=132)

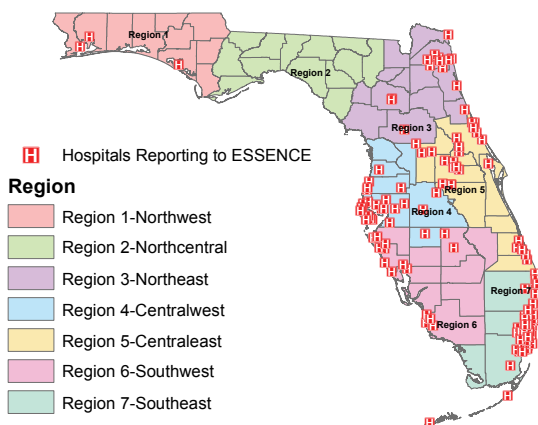


FIGURE 14: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=3), Week 40, 2007 through Dec 30, 2009

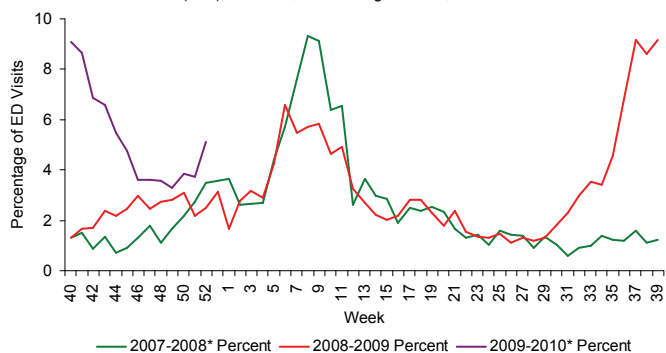


FIGURE 15: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2007 through Dec. 30, 2009

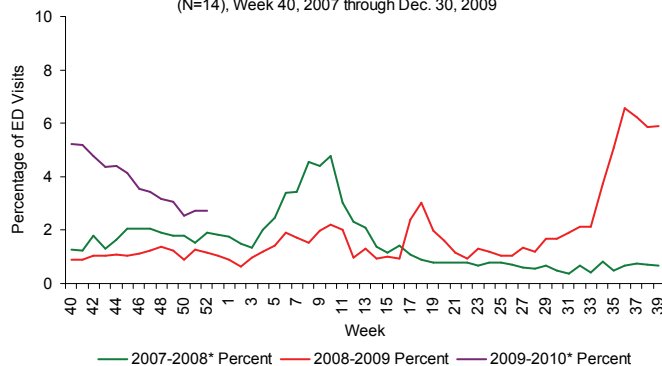


FIGURE 16: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=29), Week 40, 2006 through Dec. 30, 2009

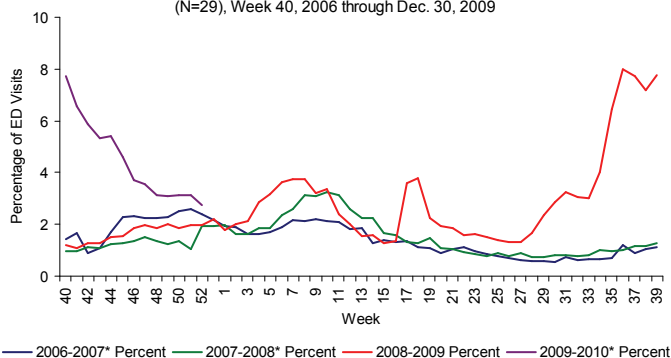


FIGURE 17: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=24), Week 40, 2007 through Dec. 30, 2009

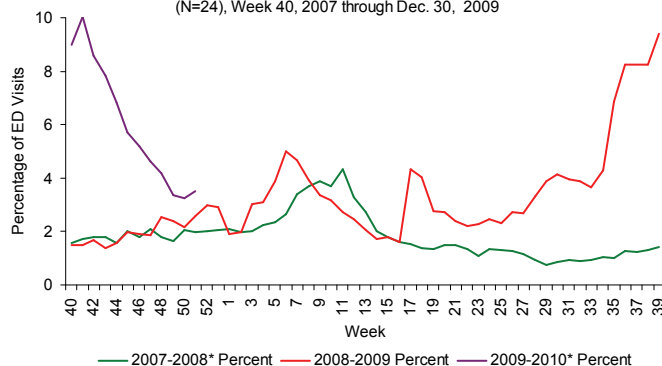


FIGURE 18: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2007 through Dec. 30, 2009

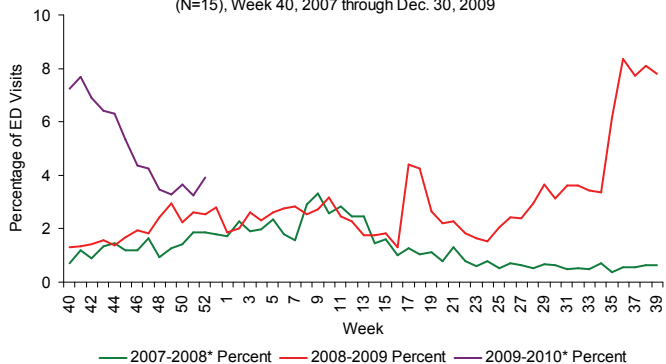
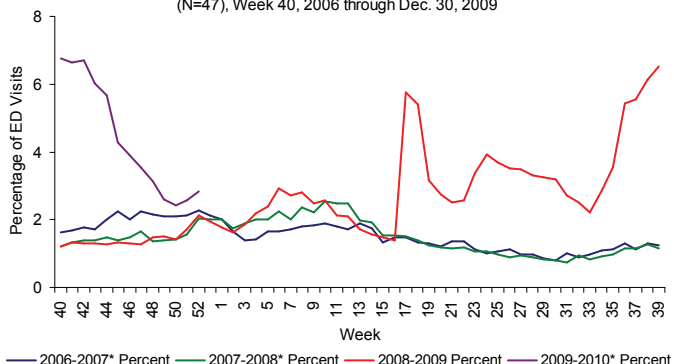


FIGURE 19: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=47), Week 40, 2006 through Dec. 30, 2009



*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.

Table 3: Bureau of Laboratories Viral Surveillance for Week 51 by Lab Event Date* as reported by 9:30 a.m. December 29, 2009

	Current Week 51	Previous Week 50
Total Specimens Tested	35	107
Influenza Positive Specimens (% of total)	3 (8.6%)	11 (10.3%)
H1N1 Positive Specimens (% of influenza positives)	3 (100.0%)	11 (100.0%)
Influenza A Unspecified (% of influenza positives)	-	-

Table 3 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.

Virtually all infections due to novel H1N1 are caused by strains that are sensitive to oseltamivir and zanamivir (Tamiflu and Relenza).

FIGURE 20 - FIGURE 22 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

The vast majority of positive influenza specimens are H1N1, with some recent exceptions:

Three specimens have tested positive for H3 seasonal Influenza A since week 44.

- One in week 46, two in week 44
- H3 seasonal Influenza A has been seen during normal influenza season.
- Four specimens have tested positive for Influenza B since week 39.
- Two in week 44, one in week 40, one in week 39
- 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.

FIGURE 20: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Laboratories (BOL) by Subtype by Lab Event Date* Week 40, 2008 to Week 51, 2009 as Reported in Merlin by 10:30 a.m. December 29, 2009

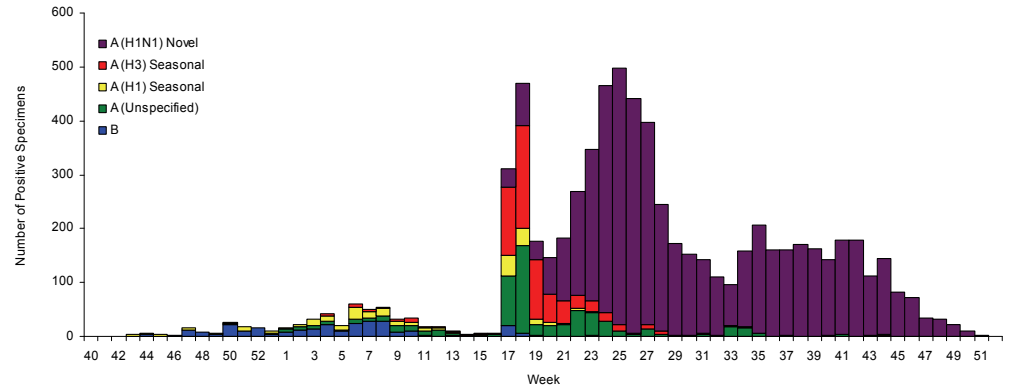


FIGURE 21: Number of Specimens Tested by Florida Bureau of Laboratories (BOL) and Percent Positive for Influenza by Lab Event Date* Week 40, 2008 to Week 51, 2009 as Reported in Merlin by 10:30 a.m. December 29, 2009

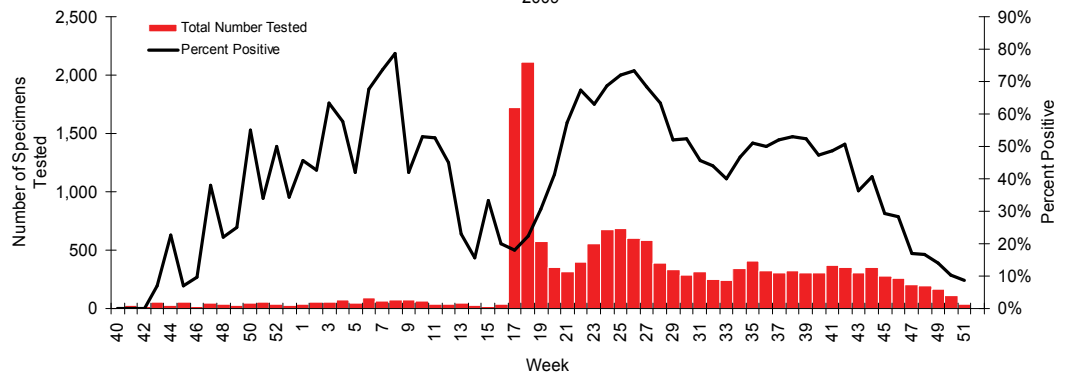
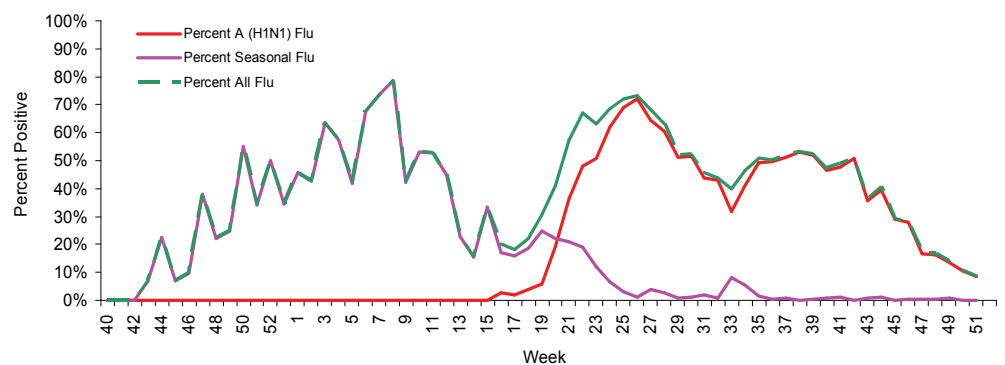


FIGURE 22: Percentage of Specimens Tested by Florida Bureau of Laboratories (BOL) Positive for Influenza by Subtype by Lab Event Date* Week 40, 2008 to Week 51, 2009 as Reported in Merlin by 10:30 a.m. December 29, 2009



*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:

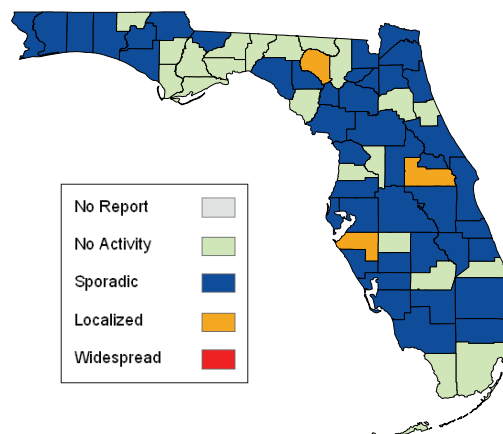
http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/FluLabReportGuide.pdf

As of 10:00 a.m. December 29, 2009, a total of 67 (100%) counties had reported their weekly level of influenza activity. This is the sixth 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 4: Weekly County Influenza Activity for Week 51 (ending December 26, 2009) as Reported by 10:00 a.m. December 30, 2009

Activity Level	Week 50 Number of Counties	Week 51 Number of Counties	Week 51 Counties
No Report	0	0	
No Activity	19	21	Calhoun, Columbia, Dade, Dixie, Flagler, Franklin, Glades, Gulf, Hamilton, Hardee, Hernando, Holmes, Jefferson, Leon, Liberty, Madison, Martin, Monroe, Putnam, Sumter, Wakulla
Sporadic	41	43	Alachua, Baker, Bay, Bradford, Brevard, Charlotte, Broward, Citrus, Clay, Collier, Desoto, Duval, Escambia, Gadsden, Gilchrist, Hendry, Highlands, Hillsborough, Indian River, Jackson, Lafayette, Lake, Lee, Levy, Marion, Nassau, Okaloosa, Okeechobee, Osceola, Palm Beach, Pasco, Pinellas, Polk, St. Johns, St. Lucie, Santa Rosa, Sarasota, Seminole, Taylor, Union, Volusia, Walton, Washington
Localized	6	3	Manatee, Orange, Suwannee
Widespread	1	0	

Map 3: Weekly County Influenza Activity for Week 51 as Reported by 10:00 a.m. December 30, 2009

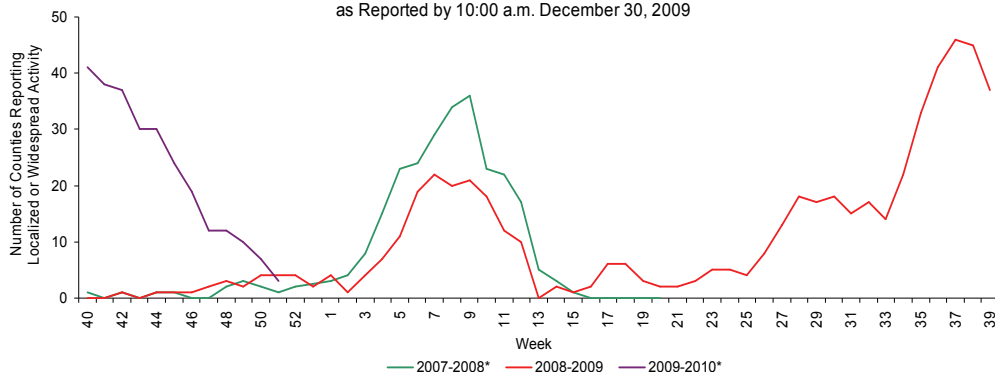


In week 51 there were a total of 3 counties reporting localized activity and no counties reporting widespread activity for the first time since week 26.

Activity is similar to what has been reported in previous years at this time.

FIGURE 23 shows the number of counties reporting localized or widespread activity, 2007-2008, 2008-2009, and 2009-2010.

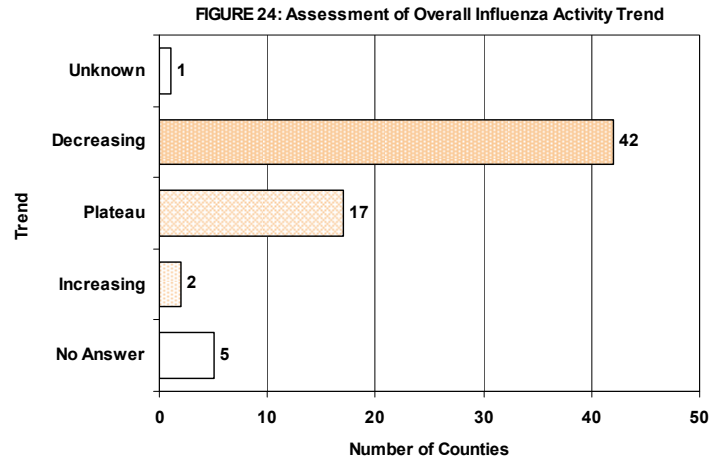
FIGURE 23: Number of Counties Reporting Localized or Widespread Activity, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-51) as Reported by 10:00 a.m. December 30, 2009



County flu activity level definitions are now available online at: 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 December 26, 42 counties indicated that activity was decreasing, 17 indicated it was about the same, and 2 indicated that activity was increasing.

FIGURE 24 shows the assessment of Overall Influenza Activity Trend in County as Reported by County Health Department Flu Coordinators for Week 51 as of 12:00 p.m. December 30, 2009



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 colleges and universities 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 students 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 students 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 25 - FIGURE 26 show the activity levels in Various Facilities by county as reported by county health department flu coordinators for week 51 as of 12:00 p.m. December 30, 2009.

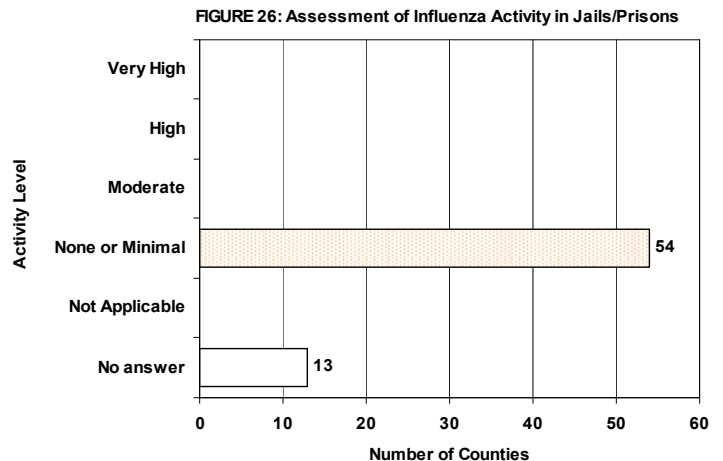
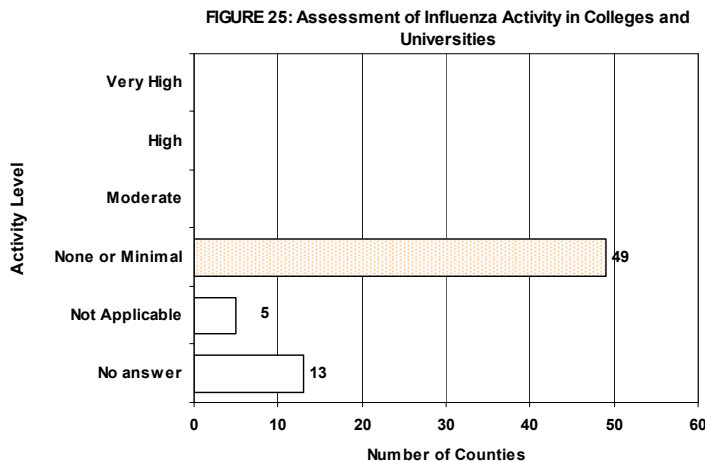


FIGURE 27 - FIGURE 32 show the activity levels in Various Facilities by county as reported by county health department flu coordinators for week 51 as of 12:00 p.m. December 30, 2009.

FIGURE 27: Assessment of Influenza Activity in Retirement Facilities

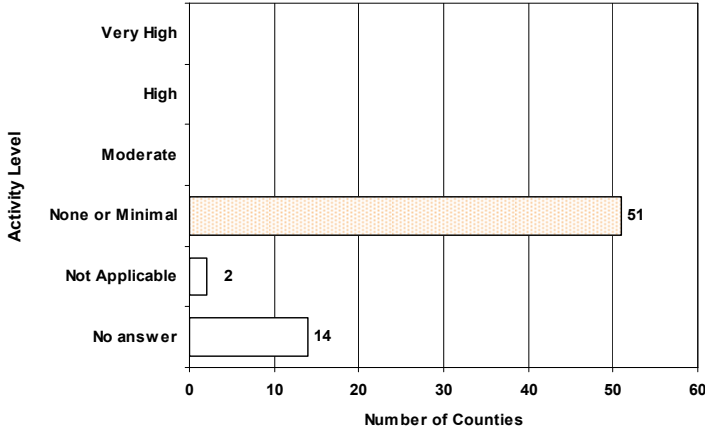


FIGURE 28: Assessment of Influenza Activity in Nursing Homes

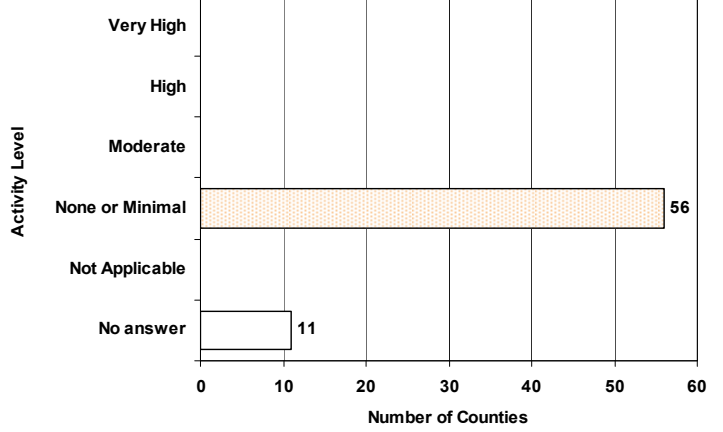


FIGURE 29: Assessment of Influenza Activity in Health Care Facilities

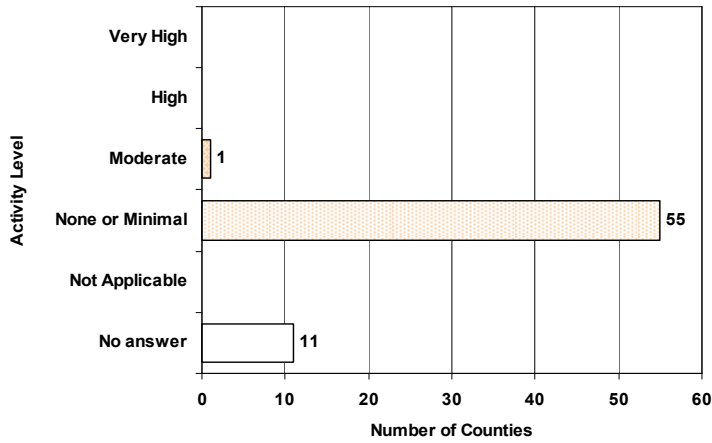


FIGURE 30: Assessment of Influenza Activity in Daycare Centers

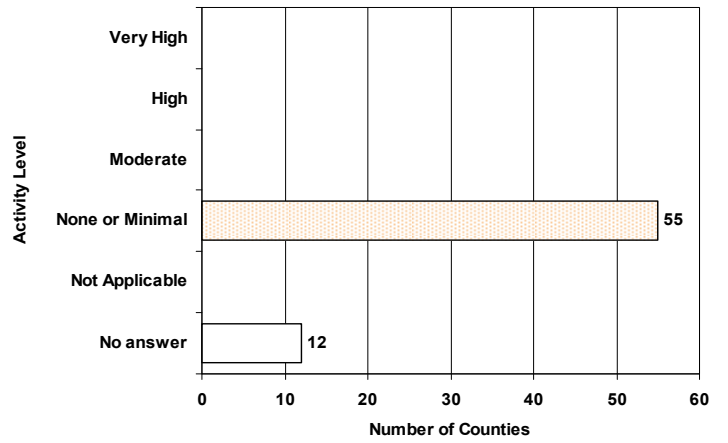


FIGURE 31: Assessment of Influenza Activity in Businesses

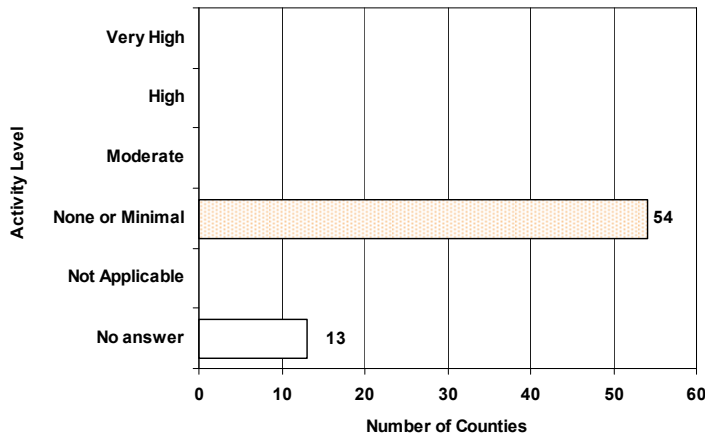
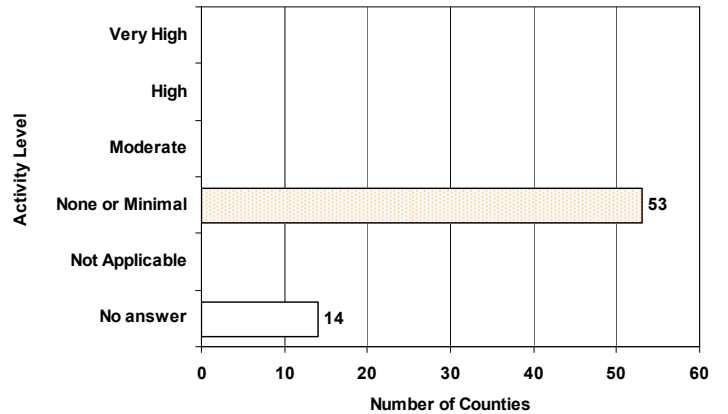


FIGURE 32: Assessment of Influenza Activity in State or Local Government Offices



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.

FIGURE 33 shows Pneumonia and Influenza Deaths for 24 Florida Counties, 2006-2007, 2007-2008, 2008-2009, and 2009-2010

For week 51 (ending December 26, 2009) there were:

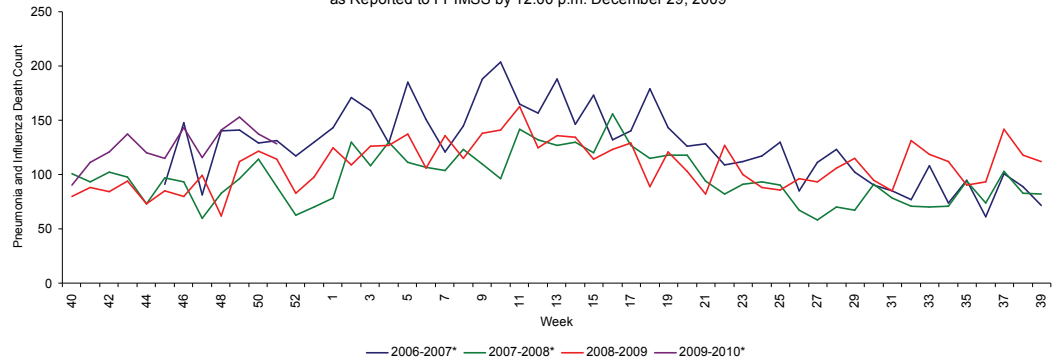
- **128 deaths reported**
- **168 deaths expected**
- **NO excess deaths**

The majority of the deaths are in those aged 45 years and older.

All of the 24 participating counties reported their data for week 51.

FIGURE 34 shows Pneumonia and Influenza Deaths for 24 Florida Counties, week 1, 2008 - week 51, 2009 as reported to FPIMSS by 12:00 pm December 29, 2009

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 40-51) as Reported to FPIMSS by 12:00 p.m. December 29, 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 34: Pneumonia and Influenza Deaths in 3 Age Groups for 24 Florida Counties, Week 1, 2008-Week 51, 2009 as Reported to FPIMSS by 12:00 p.m. December 29, 2009

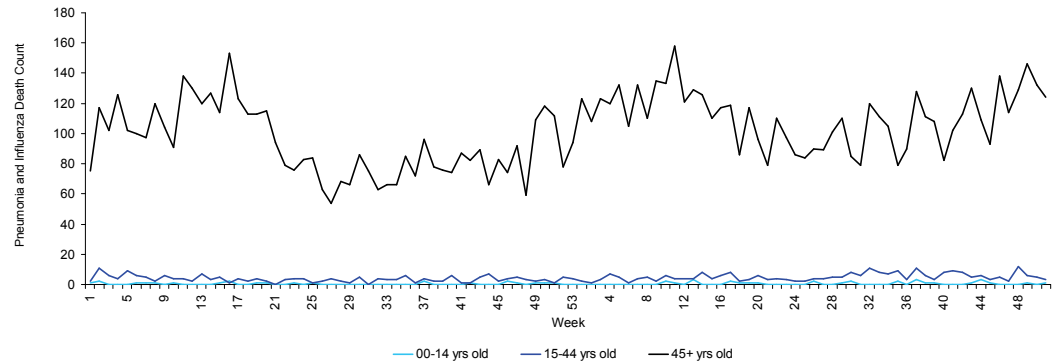


Figure 35: Pneumonia and Influenza Deaths for 24 Counties, Serfling Model January 1, 2009-December 26, 2009 as Reported to FPIMSS as of 12:00 p.m. December 29, 2009

FIGURE 35 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

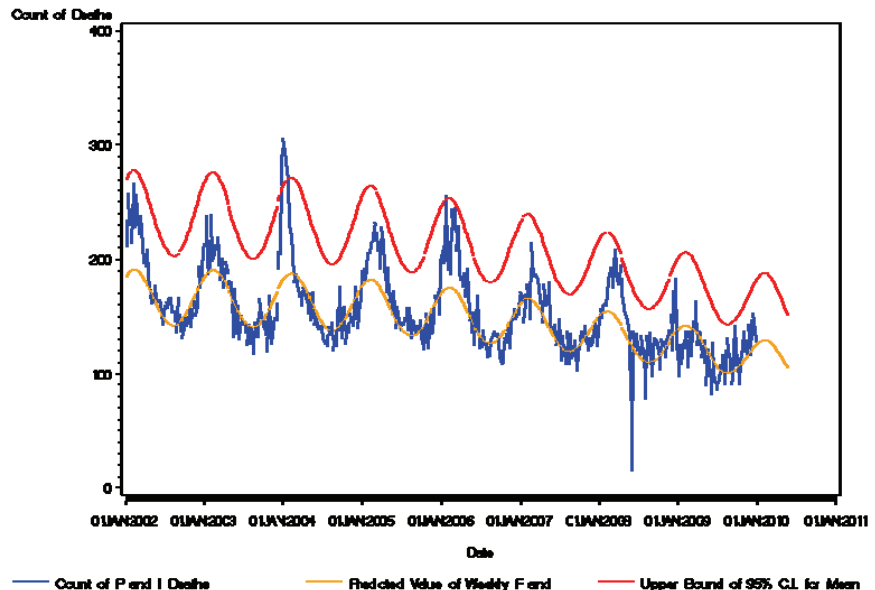


FIGURE 36 shows deaths in patients with novel H1N1*, hospitalizations due to H1N1**, and outbreaks of Influenza or ILI***, beginning at week 17, when confirmed or probable cases of novel H1N1 in patients with life-threatening illness became reportable, and ending at week 51.

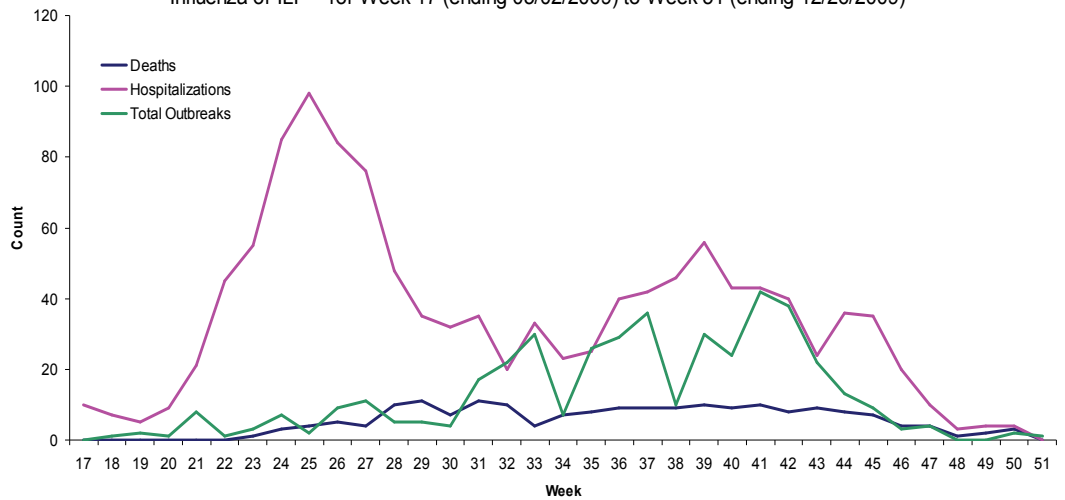
Deaths: Note that the exact contribution of H1N1 to the death is variable and may be unknown, as many of these deaths occur in people with complicated medical histories. Novel influenza A H1N1 infection would be coded as the underlying or primary cause on a death certificate for **some but not all**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

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

Hospitalizations: 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.

Figure 36: Cumulative Deaths* and Hospitalizations** in Novel H1N1 Cases, and Outbreaks of Influenza or ILI*** for Week 17 (ending 05/02/2009) to Week 51 (ending 12/26/2009)



* Deaths are classified by date of death

** Hospitalizations are classified by event date which 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.

***Outbreaks are classified by when they are reported into EpiCom

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 51, for a total of 5 cases for the 2009-2010 season.
- **Eleven** influenza-associated deaths among those <18 years of age were reported for the 2008-2009 influenza season (week 40, 2008 to week 39, 2009).

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

TABLE 5 - TABLE 7

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.

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

The case definition for novel H1N1 deaths can be found at:

http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/ReportingDeaths8-11.pdf

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.

TABLE 5: Cumulative deaths in Novel H1N1 Influenza Cases by County as of 12:00 Noon December 29, 2009

County	Number	Percent
Total	187	100.0
Alachua	6	3.2
Baker	1	0.5
Brevard	5	2.7
Broward	11	5.9
Calhoun	1	0.5
Charlotte	2	1.1
Citrus	1	0.5
Clay	1	0.5
Dade	35	18.7
Desoto	1	0.5
Duval	13	7.0
Escambia	1	0.5
Hernando	2	1.1
Highlands	2	1.1
Hillsborough	13	7.0
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	12	6.4
Osceola	1	0.5
Palm Beach	12	6.4
Pasco	3	1.6
Pinellas	11	5.9
Polk	8	4.3
Putnam	1	0.5
Santa Rosa	1	0.5
Sarasota	5	2.7
Seminole	4	2.1
St. Johns	2	1.1
St. Lucie	7	3.7
Sumter	1	0.5
Taylor	1	0.5
Volusia	5	2.7
Walton	1	0.5

TABLE 6: Recent Deaths in Novel H1N1 Influenza Cases by County, 12:00 Noon December 22, 2009 to 12:00 Noon December 29, 2009

County	Number	Percent
Total	1	100.0
Orange	1	100.0

TABLE 7: Cumulative deaths in Novel H1N1 Influenza Cases by Age as of 12:00 Noon December 29, 2009

Age	Number	Percent	Deaths per million population	NO underlying condition^
Total	187	100	9.8	31 (16.6)
0-4	6	3.2	5.3	0 (0.0)
5-24	21	11.2	4.4	7 (33.3)
25-49	76	40.6	12.3	18 (23.7)
50-64	68	36.4	18.5	6 (8.8)
65+	16	8.6	4.8	0 (0.0)

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 8: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by County as of 12:00 Noon December 29, 2009

County	Number	Percent	ICU (percent of hospitalized)
Total	1193	100.0	489 (41.0)
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	7.5	33 (37.1)
Calhoun	2	0.2	0 (0.0)
Charlotte	5	0.4	2 (40.0)
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	457	38.3	138 (30.2)
Duval	55	4.6	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	44	3.7	21 (47.7)
Indian River	4	0.3	0 (0.0)
Lake	7	0.6	2 (28.6)
Lee	31	2.6	21 (67.7)
Levy	4	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	103	8.6	42 (40.8)
Osceola	6	0.5	2 (33.3)
Palm Beach	90	7.5	44 (48.9)
Pasco	4	0.3	0 (0.0)
Pinellas	29	2.4	21 (72.4)
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	24	2.0	10 (41.7)
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 9: Recent Hospitalizations* in Novel H1N1 Influenza Cases by County, 12:00 Noon December 22, 2009 to 12:00 Noon December 29, 2009

County	Number	Percent	ICU (percent of hospitalized)
Total	6	100.0	1 (16.7)
Dade	2	33.3	0 (0.0)
Levy	1	16.7	0 (0.0)
Orange	1	16.7	0 (0.0)
Seminole	2	33.3	1 (50.0)

TABLE 9 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 10: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by Age as of 12:00 Noon December 22, 2009

Age group	Number	Percent	Hospitalizations per million population	NO underlying condition [^]	ICU
Total	1193	100.0	62.4	163 (13.7)	489 (41.0)
0-4	160	13.4	141.5	36 (22.5)	51 (31.9)
5-24	331	27.7	69.0	34 (10.3)	103 (31.1)
25-49	400	33.5	64.5	65 (16.3)	181 (45.3)
50-64	235	19.7	64.1	23 (9.8)	126 (53.6)
65+	67	5.6	20.2	5 (7.5)	28 (41.8)

TABLE 10 [^]As of week 41, underlying medical conditions include pregnancy unless otherwise noted.

TABLE 11: 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 29, 2009

Underlying medical condition status	Number	Percent	ICU	Death
Total	149	100.0	39 (26.2)	7 (4.7)
No underlying medical condition	71	47.7	22 (31.0)	3 (4.2)
Underlying medical condition	30	20.1	9 (30.0)	3 (10.0)
Unknown	48	32.2	8 (16.7)	1 (2.1)

426 confirmed or suspect outbreaks of novel H1N1 influenza or ILI have been reported as of December 26, 2009

Schools have been the most heavily impacted setting with 257 (60.3%) of the 426 outbreaks. Summer camps accounted for 50 (11.7%) of the outbreaks, daycares accounted for 27 (6.3%), and correctional facilities accounted for 23 (5.4%).

One confirmed or suspect outbreak of novel influenza A (H1N1) or ILI was reported during week 51 (ending December 26, 2009)

Over the last several 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 reported during weeks 48 and 49, and one outbreak reported 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 12: Cumulative outbreaks Reported via EpiCom by County as of Week 51 (Ending December 26, 2009)

County	Number	Percent
Total	426	100.0%
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	12.7%
Holmes	1	0.2%
Indian River	3	0.7%
Jackson	2	0.5%
Lake	62	15.0%
Madison	1	0.2%
Marion	4	0.9%
Martin	1	0.2%
Miami-Dade	23	5.4%
Nassau	21	4.9%
Okaloosa	4	0.9%
Orange	43	10.1%
Osceola	28	6.6%
Palm Beach	49	11.5%
Pasco	5	1.2%
Pinellas	3	0.7%
Polk	2	0.5%
Putnam	1	0.2%
Sarasota	7	1.6%
Seminole	5	1.2%
St. Johns	5	1.2%
St. Lucie	1	0.2%
Volusia	1	0.2%

TABLE 13: Cumulative outbreaks Reported via EpiCom by Setting as of Week 51 (Ending December 26, 2009)

Setting	Number	Percent
Total	426	100.0%
Athletics	3	0.7%
Church	1	0.2%
College/University	3	0.7%
Community Center	5	1.2%
Correctional Facility	23	5.4%
Day Care	27	6.3%
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	257	60.3%
Special Needs Facility	14	3.3%
Summer Camps	50	11.7%
Work	13	3.1%
Work/Home	3	0.7%

TABLE 14: Recent Outbreaks Reported via EpiCom by Setting during Week 51 (Ending December 26, 2009)

Setting	Number	Percent
Total	1	100.0%
Correctional Facility	1	100.0%