



Week 40: September 29 - October 5, 2013



Summary

The Florida Department of Health (FDOH) uses many different surveillance systems to measure influenza activity. A summary of all these systems can be found on page 11.

Novel influenza:

- Eighteen confirmed cases of influenza A H3N2v infection have been reported since June, 2013. Michigan reported the two most recent cases. Since being first identified in the United States, the Centers for Disease Control and Prevention (CDC) has reported 327 cases and one fatality. **No cases of H3N2v infection have been reported in Florida.** The H3N2v strain originates from influenza that circulates in pigs. Nearly all people infected with H3N2v have reported direct or indirect contact with swine. No sustained human to human transmission has been identified. More information can be found at: <http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm>.
- For current information on novel or pandemic strains of influenza (including avian or swine origin influenza A) visit <http://www.doh.state.fl.us/Environment/medicine/arboviral/zoonoses/Zoonotic-avian.html>.

State:

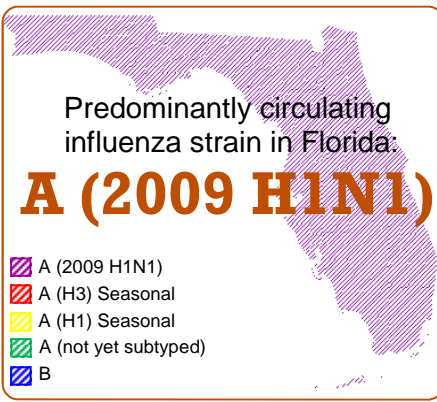
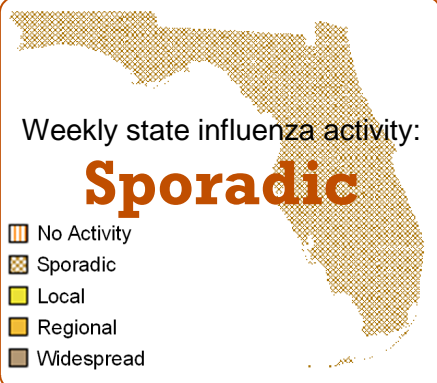
- Most Florida counties reported mild or no influenza activity.** Twenty-two counties reported increasing influenza activity.
- Emergency department (ED) and urgent care center (UCC) influenza-like illness (ILI) visits have increased overall in recent weeks.** In emergency departments and urgent care centers reporting to ESSENCE-FL, the statewide percent of emergency department visits for ILI is at or near typical levels for this time of year in all regions of Florida.
- In Florida, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) in recent weeks has been influenza A (2009 H1N1).**
 - In week 40, 25 of 40 specimens submitted for influenza testing at BPHL tested PCR positive for influenza A (2009 H1N1) and two tested positive for influenza A unspecified. In the 2012-2013 influenza season, Influenza B, influenza A (H3) and influenza A (2009 H1N1) were all detected. All of these are seasonal strains of influenza.
 - Nationally (including Florida), almost all circulating influenza is a good match for the vaccine.
- One influenza or ILI outbreak (epidemiologically linked cases of influenza in a single setting) was reported in week 40.**
- No pediatric influenza-associated deaths were reported in week 40.** No pediatric influenza-associated deaths have been reported in the 2013-2014 season.
- The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 40 is lower than the seasonal baseline, based on previous years' data.** Estimated deaths due to pneumonia and influenza are identified using preliminary death certificate data.
- Because of low influenza activity in most regions of the state, Florida reported sporadic influenza activity to CDC in week 40.** This activity level represents the geographic spread of influenza in Florida.

October 9, 2013

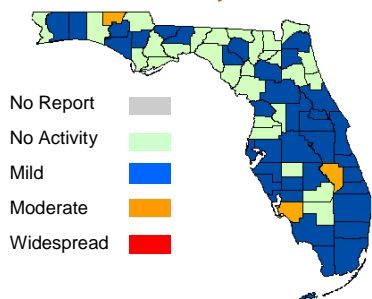
Posted on the Bureau of Epidemiology website: <http://www.doh.state.fl.us/floridaflu/>

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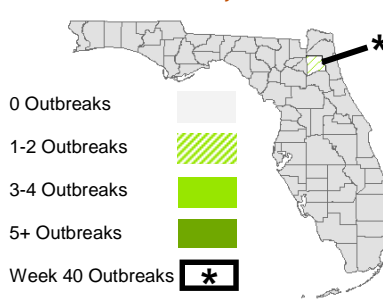


Map 1: County Influenza Activity Week 40, 2013



Thirty-six counties reported mild influenza activity. For more information, see page 6.

Map 2: Influenza and ILI Outbreaks Week 40, 2013



One outbreak of influenza or ILI has been reported since Week 40, 2013. For more information, see page 11.

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Descriptions of Florida influenza and ILI surveillance systems can be found on page 11.

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

Measure	Difference from Previous Week	Current Week 40	Previous Week 39	Page of Report
Overall statewide activity code reported to CDC	-	Sporadic	-	1
Percent of visits to ILINet providers for ILI	▲ 0.7	1.7%	1.0%	2
Percent of ED and UCC visits (from ESSENCE-FL) due to ILI	▲ 0.1	2.1%	2.0%	3
Percent of laboratory specimens that were positive for influenza	▼ 2.4	67.5%	69.9%	5
Number of counties reporting moderate influenza activity	▲ 2	3	1	6
Number of counties reporting widespread influenza activity	No Change	0	0	6
Number of counties reporting increasing influenza activity	-	22	-	7
Number of counties reporting decreasing influenza activity	-	1	-	7
Number of ILI outbreaks reported in EpiCom	▲ 1	1	0	11

ILINet Influenza-Like Illness-Statewide

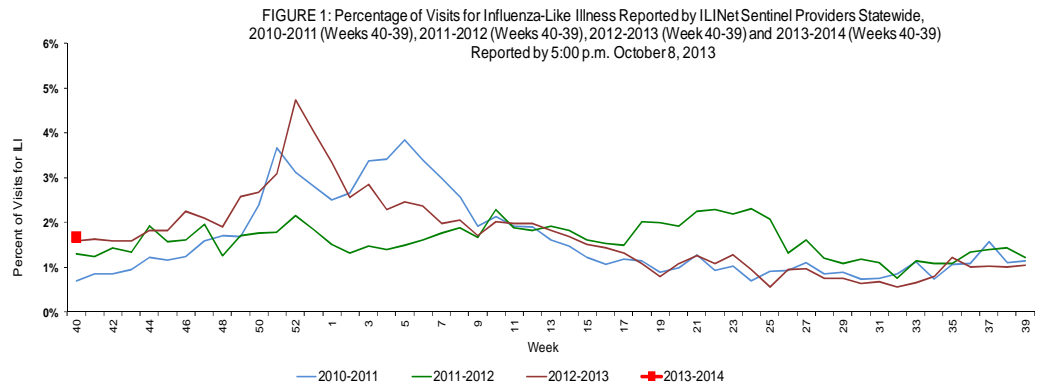
ILINet is a nationwide surveillance system composed of sentinel providers. Florida has 110 providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the BPHL for confirmatory testing. For this season, the Bureau of Epidemiology (DCBE) has designated 12 of these ILINet physicians' offices as Super-Sentinels. These Super-Sentinels receive more active follow-up from DCBE and participating county health departments (CHDs), with the goal of increasing data quality and surveillance specimen submission.

FIGURE 1 shows the percentage of visits for ILI* reported by ILINet sentinel providers statewide.

The percent of visits to ILINet sentinels outpatient physicians for ILI has increased.

58 of 101 ILINet sentinels reported visit counts as of 5:00 p.m., October 8, 2013.

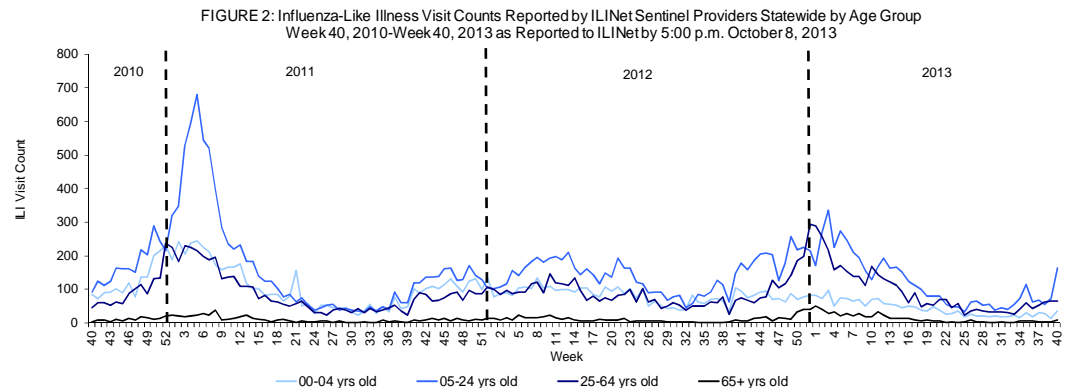
10 of 12 ILINet Super-Sentinels reported visit counts as of 5:00 p.m., October 8, 2013.



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

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

In week 40, the number of visits to ILINet sentinels for ILI increased in the 0-4, 5-19 and 65+ age groups and was stable in the 25-65 year old age group.



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

ESSENCE-FL collects data daily from 183 EDs and UCCs. These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is ILI, which is composed of chief complaints that include the words "influenza" or "flu," or complaints that contain fever plus cough or sore throat.

FIGURE 3 shows ESSENCE-FL data on ILI visits to EDs and UCCs as a percentage of all visits.

The percent of visits to EDs and UCCs for ILI continues to rise, and is near expected levels for this time of year.

FIGURE 3: Percentage of ILI visits from Emergency Department (ED) and Urgent Care Center (UCC) Chief Complaints, ESSENCE-FL Participating Facilities (N=183), Week 40, 2010 through October 8, 2013

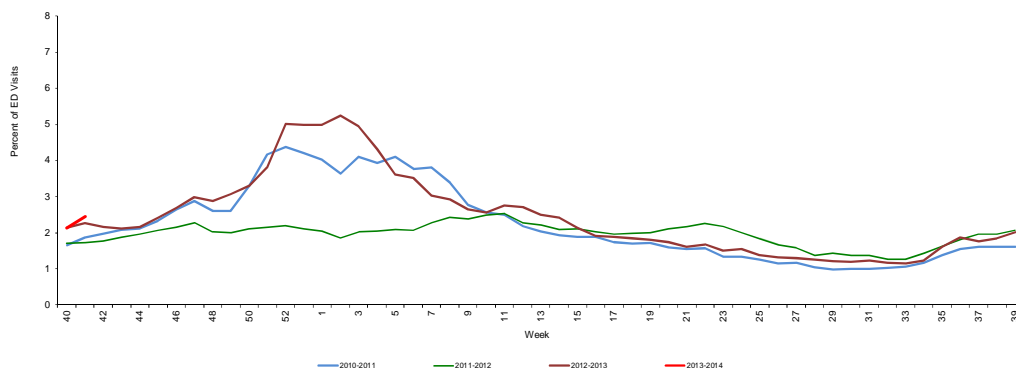
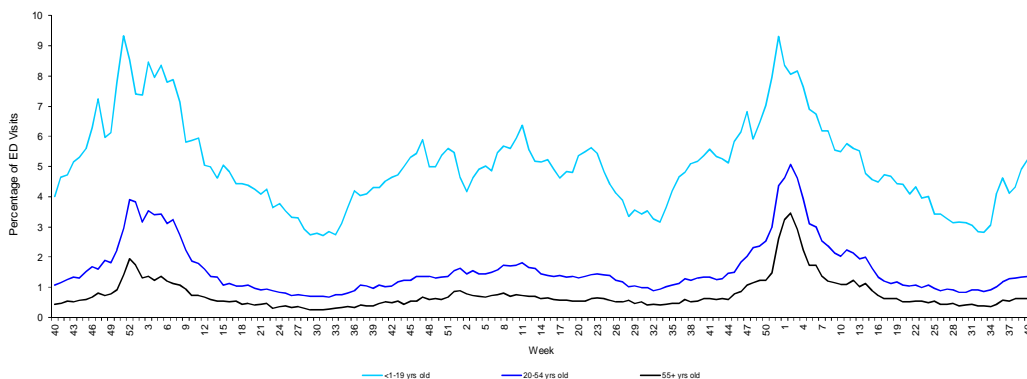


FIGURE 4 shows percentage of ILI among all ED and UCC visits by age

In the current week, the percent of visits to emergency departments and urgent care centers for ILI is similar to previous years at this time for all age groups.

FIGURE 4: Percentage ILI visits from Emergency Department and Urgent Care Center Chief Complaints by Age, ESSENCE-FL Participating Facilities (N=183), Week 40, 2010 through October 8, 2013



ESSENCE-FL Syndromic Surveillance Summary-Regional

Map 3: Emergency Departments and Urgent Care Centers Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force (RDSTF), May 22, 2013 (N=183)

Map 4: Emergency Departments and Urgent Care Centers Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force (RDSTF) ILI Activity Trends, Week 40, 2013

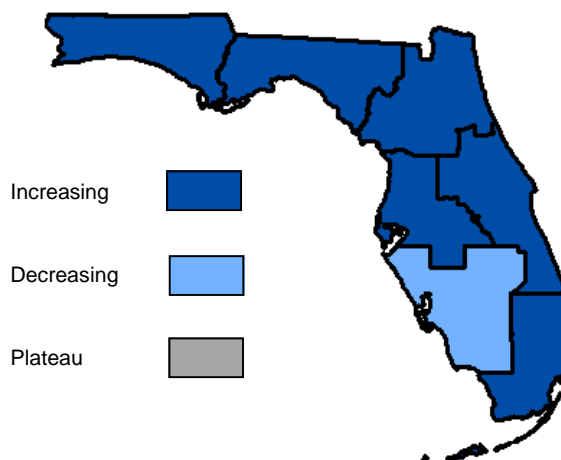
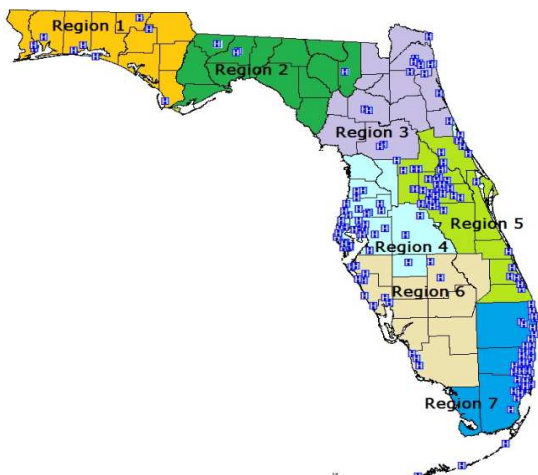


FIGURE 5 - FIGURE 11 describe Emergency department (ED) and Urgent Care Center (UCC) chief complaint data from ESSENCE-FL by Regional Domestic Security Task Force (RDSTF) regions.

FIGURE 5: Percentage of ILI visits from ED Chief Complaints, RDSTF Region 1 ESSENCE-FL Participating Hospitals (N=10), Week 40, 2010 through October 8, 2013

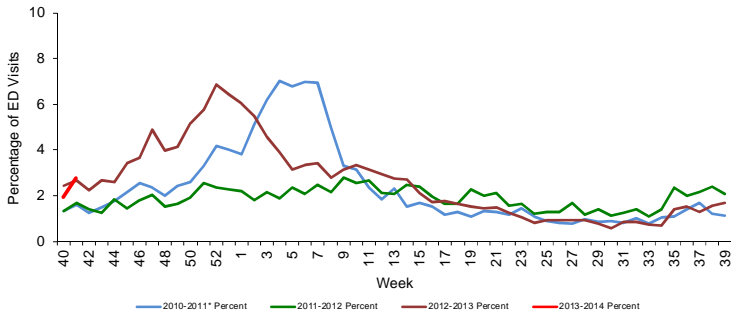


FIGURE 6: Percentage of ILI visits from ED Chief Complaints, RDSTF Region 2 ESSENCE-FL Participating Facilities (N=4), Week 40, 2010 through October 8, 2013

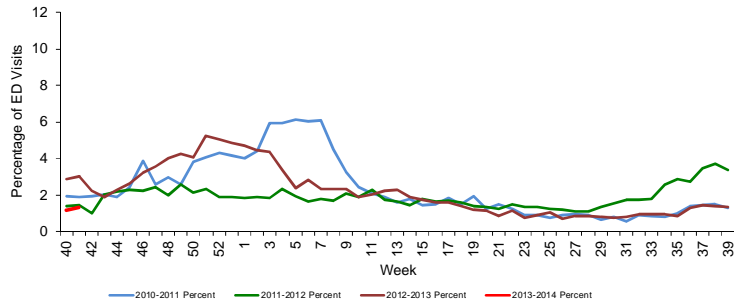


FIGURE 8: Percentage of ILI visits from ED and UCC Chief Complaints, RDSTF Region 4 ESSENCE-FL Participating Facilities (N=36), Week 40, 2010 through October 8, 2013

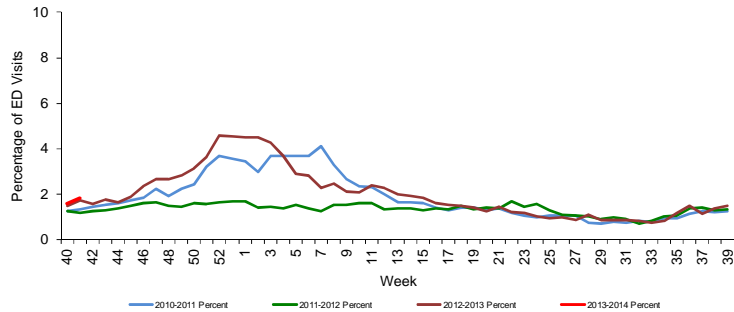
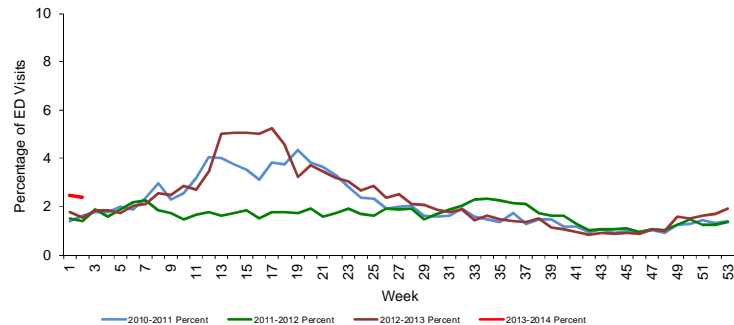


FIGURE 10: Percentage of ILI visits from ED Chief Complaints, RDSTF Region 6 ESSENCE-FL Participating Facilities (N=15), Week 40, 2010 through October 8, 2013



The percent of ED and UCC visits for ILI is near expected levels in all regions of Florida.

Regions 1-5 and 7 report increasing visits for ILI to EDs and UCCs in week 40, 2013.

Region 6 reports declining visits for ILI to EDs and UCCs in week 40, 2013.

Regions 6 and 7 are seeing higher numbers of visits for ILI to EDs and UCCs than in previous seasons at this time.

FIGURE 7: Percentage of ILI visits from ED Chief Complaints, RDSTF Region 3 ESSENCE-FL Participating Facilities (N=17), Week 40, 2010 through October 8, 2013

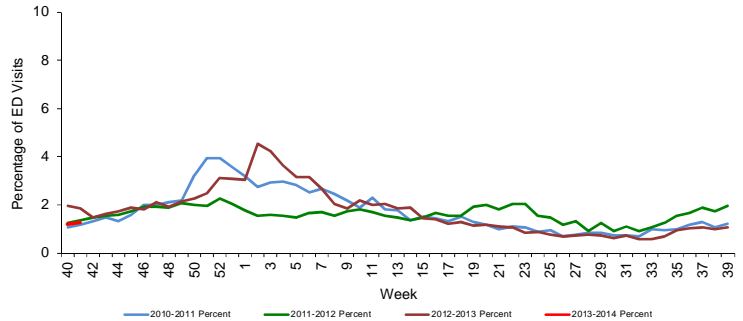


FIGURE 9: Percentage of ILI visits from ED and UCC Chief Complaints, ESSENCE-FL Participating Facilities, RDSTF Region 5 ESSENCE-FL Participating Facilities (N=52), Week 40, 2010 through October 3, 2013

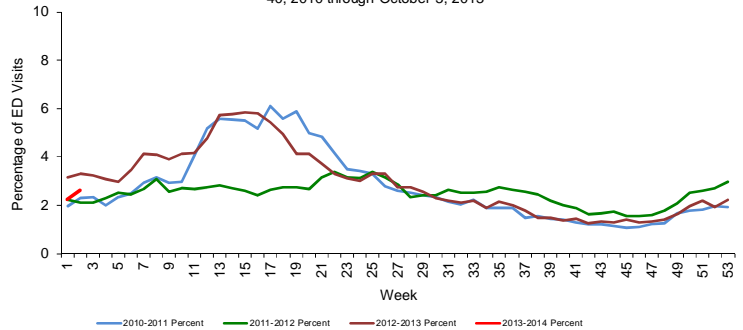


FIGURE 11: Percentage of ILI visits from ED and UCC Chief Complaints, ESSENCE-FL Participating Facilities, RDSTF Region 7 ESSENCE-FL Participating Facilities (N=49), Week 40, 2010 through October 8, 2013

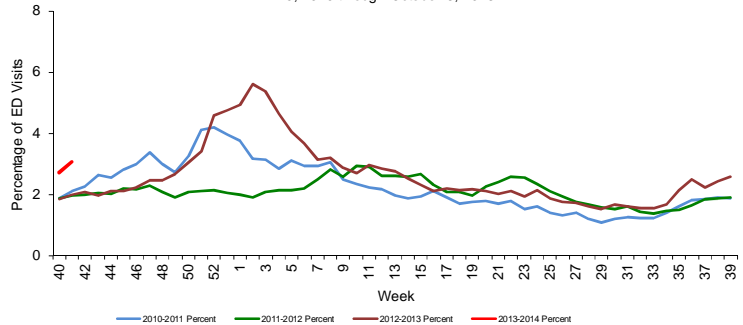


TABLE 2 shows the number of specimens tested by BPHL, how many are influenza positive, and their subtypes.

Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance for Week 40 by Lab Event Date* as reported by 12:00 p.m. October 9, 2013

	Current Week 40	Previous Week 39
Total Specimens Tested	40	23
Influenza positive specimens (% of total)	27 (67.5%)	16 (69.6%)
Influenza A (2009 H1N1) (% of influenza positives)	25 (92.6%)	15 (93.8%)
Influenza A (H3) (% of influenza positives)	-	-
Influenza A not yet subtyped (% of influenza positives)	2 (7.4 %)	1 (6.2 %)
Influenza B unspecified (% of influenza positives)	-	-

FIGURE 12 - FIGURE 13 use BPHL viral surveillance data to track the progress of influenza infection over time. They include weekly information on how many specimens are tested by the BPHL, what proportion of those test positive for influenza and what subtypes are identified.

Recent influenza specimens submitted to BPHL tested positive for influenza A 2009 H1N1.

In recent weeks, influenza A 2009 H1N1 has been the most common strain detected by BPHL. Specimen submissions have increased as ILI visits and other influenza indicators have begun climbing.

FIGURE 12: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Public Health Laboratories (BPHL) by Subtype by Lab Event Date* Week 1, 2011 to Week 40, 2013 as Reported in Merlin by 12:00 p.m. October 9, 2013

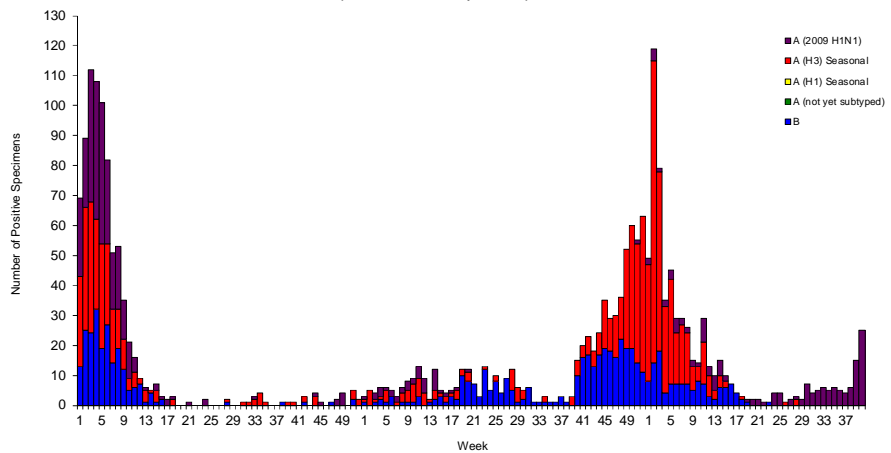
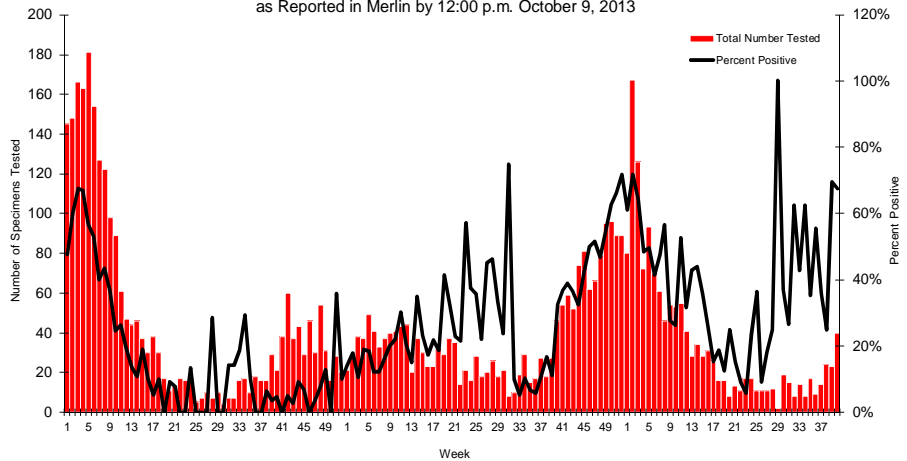


FIGURE 13: Number of Specimens Tested by Florida Bureau of Public Health Laboratories (BPHL) and Percent Positive for Influenza by Lab Event Date* Week 1, 2011 to Week 40, 2013 as Reported in Merlin by 12:00 p.m. October 9, 2013



*Please note that lab event date is defined as the earliest of the following dates associated with the lab: date specimen 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

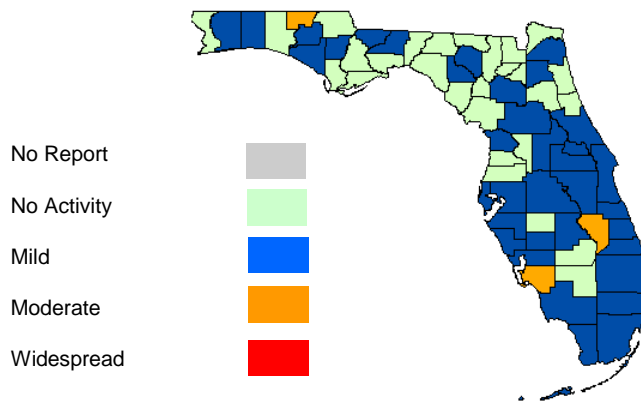
As of 1:00 p.m. October 9, 2013 a total of 67 (100%) counties had reported their weekly level of influenza activity. *Please note that data reported by counties after the deadline Tuesday at 5 p.m. are recorded but may not be included in the activity map for previous weeks.*

**TABLE 3: Weekly County Influenza Activity for Week 40 (ending October 5, 2013)
as Reported by 1:00 p.m. October 9, 2013**

Activity Level	Week 40 Number of Counties	Week 39 Number of Counties	Week 40 Counties
No Report	-	36	-
No Activity	28	14	Baker, Bradford, Columbia, Dixie, Escambia, Flagler, Franklin, Gilchrist, Glades, Gulf, Hamilton, Hardee, Hendry, Hernando, Jackson, Jefferson, Levy, Liberty, Madison, Nassau, Pasco, Putnam, St. Johns, Sumter, Taylor, Union, Wakulla, Walton
Mild	36	17	Alachua, Bay, Brevard, Broward, Calhoun, Charlotte, Citrus, Clay, Collier, Dade, Desoto, Duval, Gadsden, Highlands, Hillsborough, Indian River, Lafayette, Lake, Leon, Manatee, Marion, Martin, Monroe, Okaloosa, Orange, Osceola, Palm Beach, Pinellas, Polk, Santa Rosa, Sarasota, Seminole, St. Lucie, Suwannee, Volusia, Washington
Moderate	3	1	Holmes, Lee, Okeechobee
Widespread	-	-	-

**Map 5: Weekly County Influenza Activity for Week 40
as Reported by 1:00 p.m. October 9, 2013**

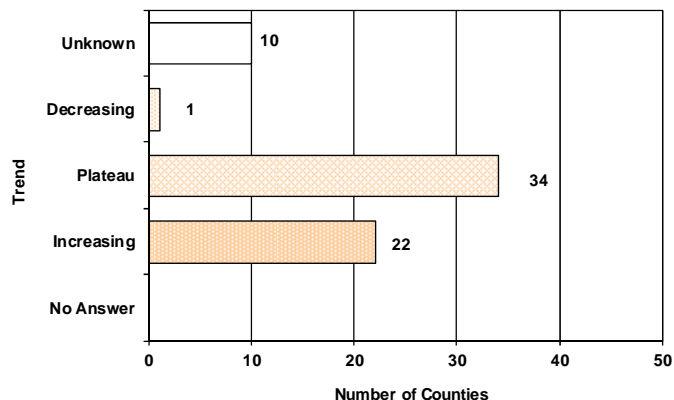
Three counties report moderate activity.



County influenza activity data is reported to the Division of Disease Control Bureau of Epidemiology (DCBE) 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 14-23 displayed below reflect a county's assessment of influenza activity within their county as a whole as well as influenza activity within specific settings. For week 40, one county indicated that activity was decreasing, 34 indicated activity was about the same as previous weeks and 22 indicated that activity was increasing.

FIGURE 14 shows the assessment of the overall influenza activity trend in each county as reported by CHD influenza coordinators for week 40 as of 1:00 p.m. October 9, 2013.

FIGURE 14: Assessment of Overall Influenza Activity Trend



Definitions for the County Influenza Activity Trends are available at:
http://www.doh.state.fl.us/disease_ctrl/epi/CountyInfluenzaTrendGuide.html

Counties are asked to evaluate influenza activity in certain settings within their county. Each setting has a scale for activity that ranges from none or minimal activity to very high activity. What defines each of the values varies by facility type, but the example of the assessment in elementary, middle and high schools is included below. More detailed information on the meanings of the levels for each setting can be found on the webpage also included below.

No or very minimal activity -- Scattered cases of ILI with no increase in absenteeism or disruption of school activities.

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

High activity -- Absenteeism elevated above baseline (in range of 10 to 25%) in more than half of schools; most schools sending several or many children home each day because of ILI.

Very high activity -- Absenteeism high enough to force curtailment of some or all school activities.

County influenza settings assessment guides are available at:
http://www.doh.state.fl.us/disease_ctrl/epi/FluAssessment.htm

FIGURE 15 - FIGURE 18 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 40 as of 1:00 p.m., October 9, 2013.

FIGURE 15: Assessment of Influenza Activity in Elementary, Middle, and High Schools

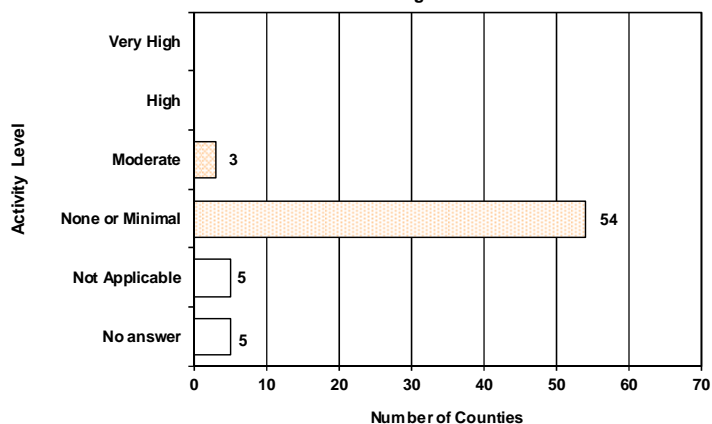


FIGURE 16: Assessment of Influenza Activity in Colleges and Universities

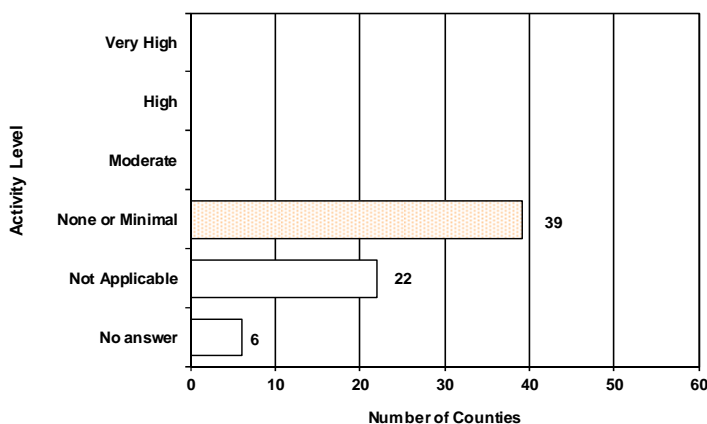


FIGURE 17: Assessment of Influenza Activity in Jails/Prisons

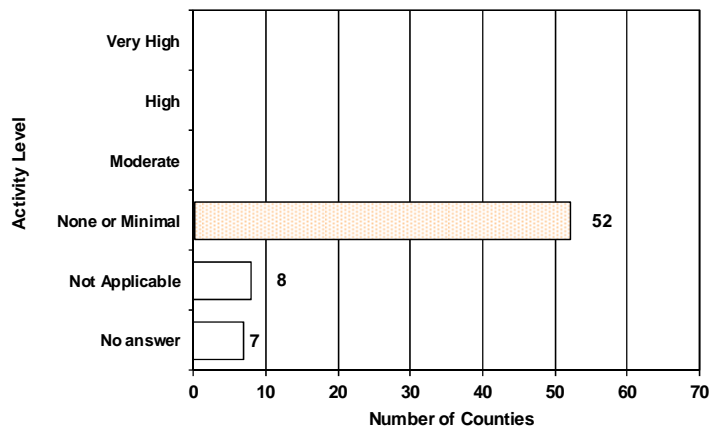


FIGURE 18: Assessment of Influenza Activity in Retirement Facilities

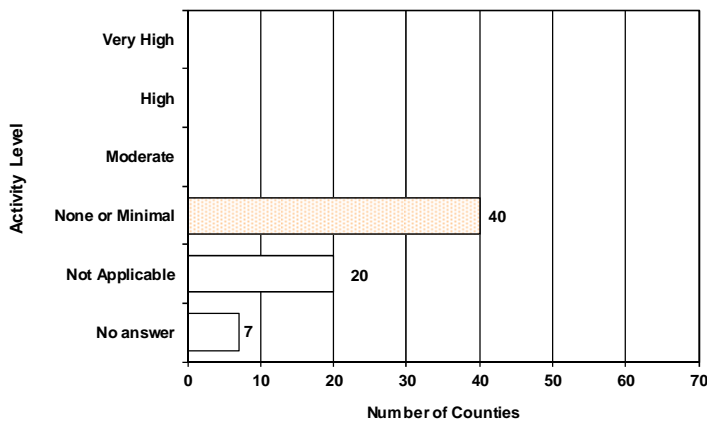
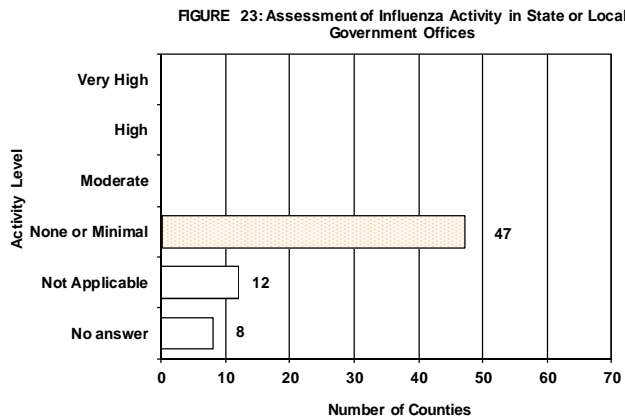
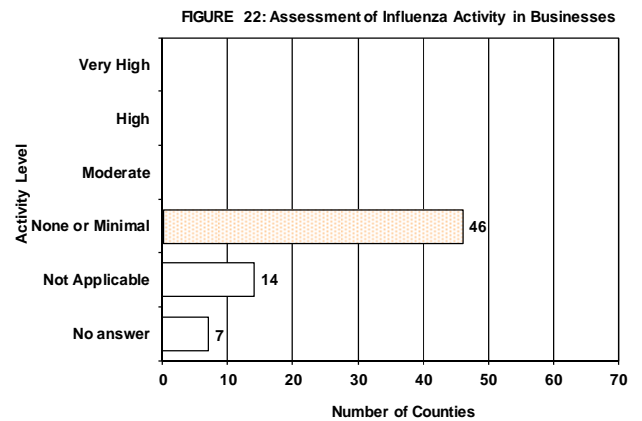
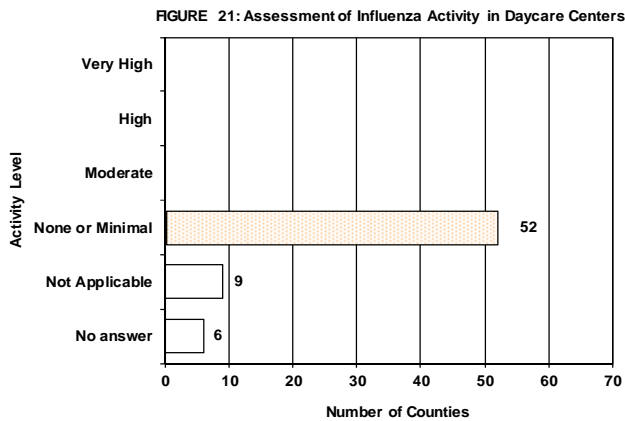
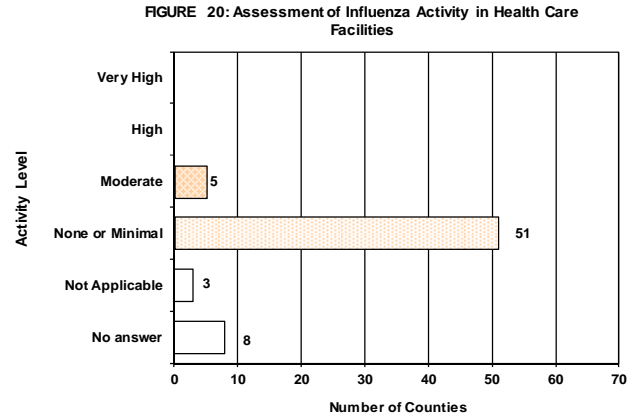
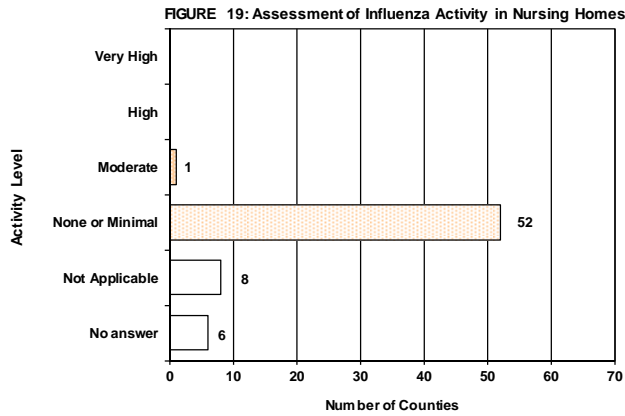


FIGURE 19 - FIGURE 23 show the activity levels in various facilities by county as reported by county health department influenza coordinators for week 40 as of 1:00 p.m., October 9, 2013.



Pediatric Influenza-Associated Mortality

In week 40, 2013, no influenza-associated pediatric deaths were reported in Florida.

Over the past year, the FDOH Bureau of Vital Statistics and CHDs have been rolling out an electronic death record system for Florida. ESSENCE-FL now displays electronic vital statistics death record data from all 67 Florida counties. For pneumonia and influenza surveillance, death record literals are queried in ESSENCE-FL using a free-text query that searches for references to pneumonia and influenza on death certificates. Any mention of pneumonia or influenza in the death certificate literals, with certain exceptions, is counted as a pneumonia and influenza death. Current season pneumonia and influenza death numbers are preliminary estimates, and may change as more data are received. *The most recent data available are displayed here. ESSENCE-FL vital statistics death records data are currently considered to be complete through week 39, 2013.*

FIGURE 24 shows the count of preliminary estimated pneumonia and influenza deaths for all Florida counties, the number of deaths predicted using a multi-year regression model, and the upper bound of the 95% confidence interval for this prediction.

For week 39 (ending October 5, 2013):

- **155 preliminary estimated pneumonia and influenza deaths reported**
- **Upper bound of 95% confidence interval for prediction: 175 deaths**
- **No excess deaths.**

Figure 24: Vital Statistics Statewide Pneumonia and Influenza Deaths, Multi-Year Regression Model Week 17, 2000-Week 40, 2013, as reported into ESSENCE-FL

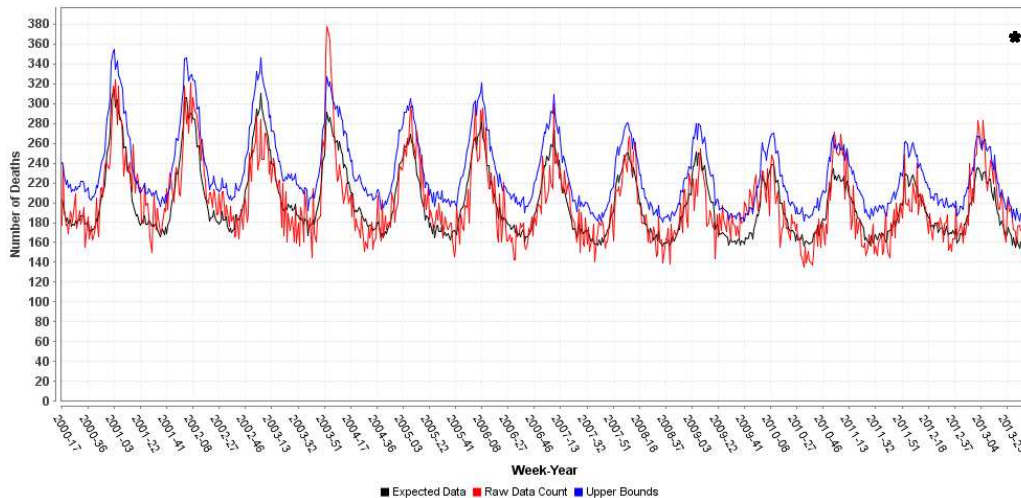


FIGURE 25 shows pneumonia and influenza deaths for all Florida counties, Week 40, 2010 - Week 41, 2013, as reported into ESSENCE-FL.

FIGURE 25: Vital Statistics Statewide Pneumonia and Influenza Deaths, as reported into ESSENCE-FL, Week 40, 2010-Week 41, 2013

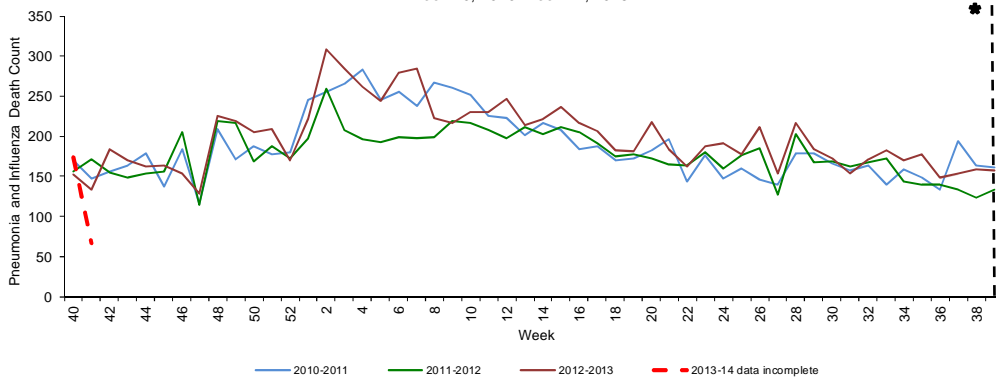
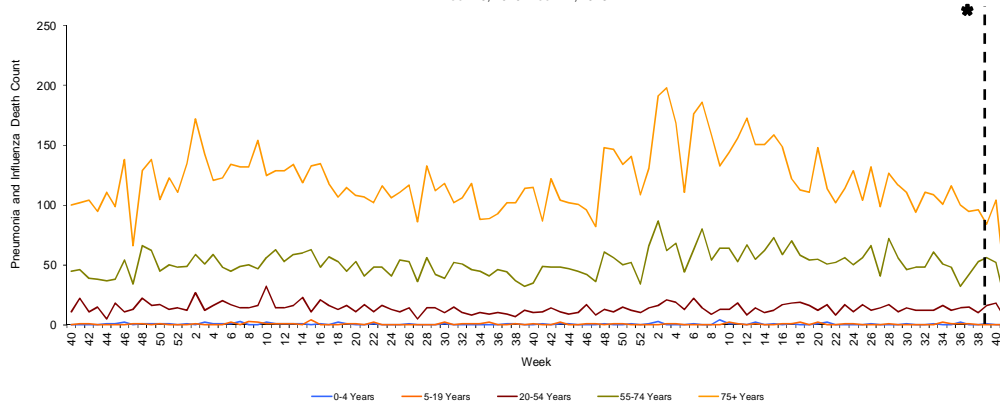


FIGURE 26 shows pneumonia and influenza deaths for all Florida counties by age group, Week 40, 2010 - Week 41, 2013, as reported into ESSENCE-FL.

FIGURE 26: Vital Statistics Florida Pneumonia and Influenza Deaths by Age Group, as reported into ESSENCE-FL, Week 40, 2010-Week 41, 2013



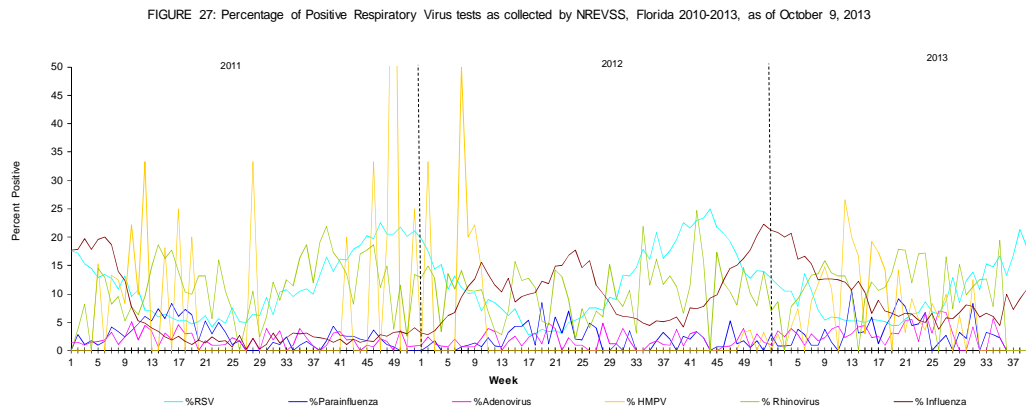
* Death records data reported into ESSENCE-FL are currently considered to be complete through week 39, 2013.

The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratories around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of six common respiratory viruses. Nine Florida facilities reported in week 40.

FIGURE 27 shows the percentage of positive tests for multiple respiratory viruses reported by NREVSS-participating laboratories in Florida.

The 6 respiratory viruses summarized in Figure 27 are:

- Respiratory Syncytial Virus (RSV)
- Parainfluenza 1-3
- Adenovirus
- Human Metapneumovirus (HMPV)
- Rhinovirus
- Influenza



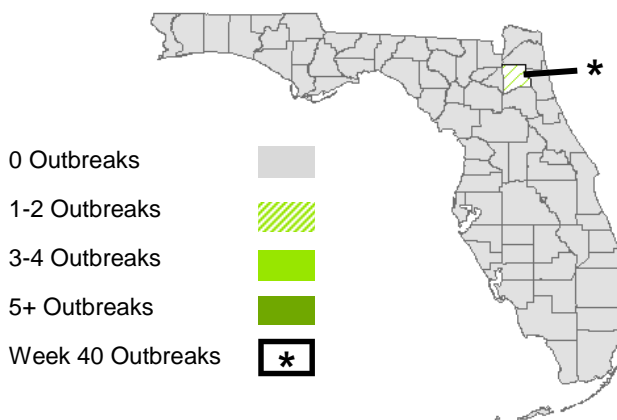
Influenza and ILI Outbreaks

In week 40, 2013 there was one influenza or ILI outbreak reported in EpiCom.

Clay County: An assisted living facility reported 12 residents ill with ILI. Specimens were collected and forwarded to BPHL, results are pending. CDC outbreak control measures were discussed with the facility's staff.

One outbreak of influenza or ILI has been reported so far in the 2013-2014 influenza season.

Map 6: Influenza and ILI outbreaks by county, Week 40, 2012 - Week 20, 2013 as Reported by 11:00 a.m. May 22, 2013



One influenza or ILI outbreak has been reported into EpiCom in the 2013-2014 season so far.

TABLE 4 : Summary of Florida ILI Outbreaks by Facility Status, Week 40, 2013

Setting	Number of outbreaks	Implicated Viruses
Schools	0	• No outbreaks
Colleges and universities	0	• No outbreaks
Daycares	0	• No outbreaks
Private businesses	0	• No outbreaks
Local and state government offices	0	• No outbreaks
Jails and prisons	0	• No outbreaks
Retirement homes	1	• One outbreak was due to a virus not yet isolated
Nursing homes	0	• No outbreaks
Healthcare facilities	0	• No outbreaks
Other	0	• No outbreaks
Total	1	• One outbreak was due to a virus not yet isolated

Florida Surveillance System Summary

Florida ILINet

Measures trends in ILI visits to outpatient doctor's offices

Doctors submit specimens from ill patients for influenza testing

Network of volunteer healthcare providers who:

Report ILI and total visit counts every week

Submit specimens for confirmatory testing

ESSENCE-FL Syndromic Surveillance

Measures trends in ILI visits and hospital admissions from emergency departments and urgent care clinics

Emergency departments and urgent care clinics electronically transmit visit data into ESSENCE-FL daily

Visit data summarized in the Florida Flu Review include:

Percent of ED/urgent care visits due to ILI

Percent of ED/urgent care visitors with ILI who are admitted to the hospital

ESSENCE-FL Vital Statistics Portal

Death certificates with pneumonia or influenza listed as a cause of death are used as a proxy to measure influenza mortality

Death certificate data from the Bureau of Vital Statistics can be accessed through ESSENCE-FL

Vital statistics data in ESSENCE are used for pneumonia and influenza mortality surveillance

County Influenza Activity in EpiGateway

Uses data provided by CHDs to create a county-by-county breakdown of influenza and ILI activity around the state

CHD epidemiologists report their county's influenza and ILI surveillance data weekly into the EpiGateway website

Influenza activity is classified as: No Activity, Mild, Moderate, or Widespread

Setting-specific influenza activity and influenza trend is also reported

Outbreak Reporting in EpiCom

Tracks influenza and ILI outbreak investigations by CHDs

Shows what types of influenza are responsible for outbreaks and where outbreaks are occurring

CHD epidemiologists report outbreaks of influenza or ILI into EpiCom, Florida's online disease communication system

Outbreaks are defined as two or more cases of influenza or ILI in a specific setting

Bureau of Public Health Laboratories Viral Surveillance (BPHL)

BPHL performs confirmatory testing and subtyping on surveillance specimens

Surveillance specimens come from ILINet sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations, and medical examiners

Case-Based Influenza Surveillance

Pediatric Influenza-Associated Mortality

Deaths in children with laboratory-confirmed influenza infection are reportable in Florida

Influenza due to Novel or Pandemic Strains

Patients with influenza infection due to novel or pandemic strains are reportable in Florida

National Respiratory and Enteric Virus Surveillance System (NREVSS)

Measures trends in different viruses that cause respiratory disease

Network of laboratories who report counts of test results for common respiratory viruses, including influenza, RSV, rhinovirus, and others

Information on locating influenza vaccination can be found using the flu vaccine locator at: <http://flushot.healthmap.org/>