



Week 11: March 11-17, 2012



Summary

The Florida Department of Health (FDOH) monitors multiple surveillance systems such as the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS), notifiable disease reports (Merlin), EpiCom, and Florida ILINet in order to track influenza activity in the state.

National:

- Influenza and ILI are at low levels nationwide according to Centers for Disease Control and Prevention (CDC) reports. Using Florida ILINet data, CDC calculated minimal ILI intensity for Florida in week 10.

State:

- Influenza and ILI activity in Florida is low in all FDOH surveillance systems. Most reporting counties report low to no activity. Three counties reported moderate activity.
- No ILI or influenza outbreak was reported to EpiCom in week 11. Low numbers of influenza specimens have tested positive for seasonal influenza A H3 by the state lab this flu season. All flu identified has been due to seasonal influenza strains. No specimens have tested positive for novel influenza in Florida.
- In week 11, 13 specimens tested PCR-positive for influenza at the state lab. Four specimens tested positive for H1N1, six for influenza A H3 and three more for influenza B. Other viruses known to be currently circulating, potentially causing ILI, include adenovirus, rhinovirus, parainfluenza, and respiratory syncytial virus (RSV).

Weekly state influenza activity: Regional

Florida is currently reporting Regional influenza activity statewide, due to low but increasing ILI activity levels reported across Florida, increasing percent positive for influenza specimens, and increasing ILI levels in ESSENCE and ILINet. The weekly state influenza activity level is a measure of the geographic spread of influenza across Florida, and not of influenza morbidity or mortality.

Pediatric Influenza-associated Mortality

Two pediatric influenza-associated mortalities were reported in week 11 in Miami-Dade County. The two cases were not epidemiologically linked. These are the first influenza-associated pediatric mortalities in the 2011-2012 influenza season. Pediatric-associated influenza deaths among those less than 18 years old are reportable in Florida.

March 21, 2012

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

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

Contributors: Heather Rubino, MS; Colin Malone, MPH; Aaron Kite-Powell, MS; Leah Eisenstein, MPH; Lillian Stark, PhD, MPH, MS; Valerie Mock; Janet Hamilton, MPH; Richard Hopkins, MD, MSPH

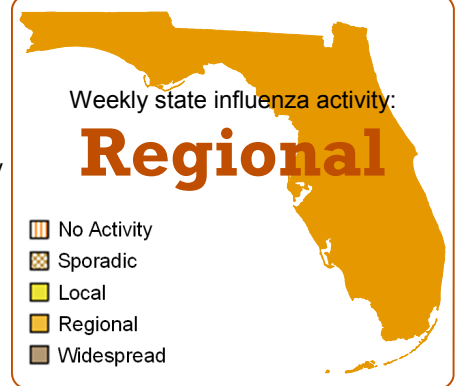


TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 11

Measure	Difference from previous week	Current week 11	Previous week 10	Page of Report
Overall statewide activity code reported to CDC	No Change	Regional	Regional	1
Percent of visits to ILINet providers for ILI	▼ 0.5	1.6%	2.1%	2
Percent of emergency department visits (from ESSENCE) due to ILI	▲ 0.2	2.7%	2.5%	3
Percent of laboratory specimens that were positive for influenza	▲ 8.3	30.2%	21.9%	5
Number of counties reporting moderate influenza activity	▲ 1	3	2	6
Number of counties reporting widespread influenza activity	No Change	0	0	6
Number of counties reporting increasing influenza activity	▼ 4	10	14	7
Number of counties reporting decreasing influenza activity	▲ 5	11	6	7
Number of ILI outbreaks reported in EpiCom	▼ 1	0	1	10

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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 submitting ILI specimens to the BOL for confirmatory testing. For this season, BOE has designated 16 of these ILINet physicians' offices as Super-Sentinels. These Super-Sentinels will receive more active follow-up from BOE and participating county health departments, with the goal of increasing data quality and surveillance specimen submission. Complete lab and visit data from Florida ILINet Super-Sentinels will be presented in the Florida Flu Review in future weeks.

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

ILI percent remains low and close to other non-pandemic seasons at this time.

64 of 110 ILINet Sentinels have reported visit counts as of 10:00 a.m., March 21, 2012.

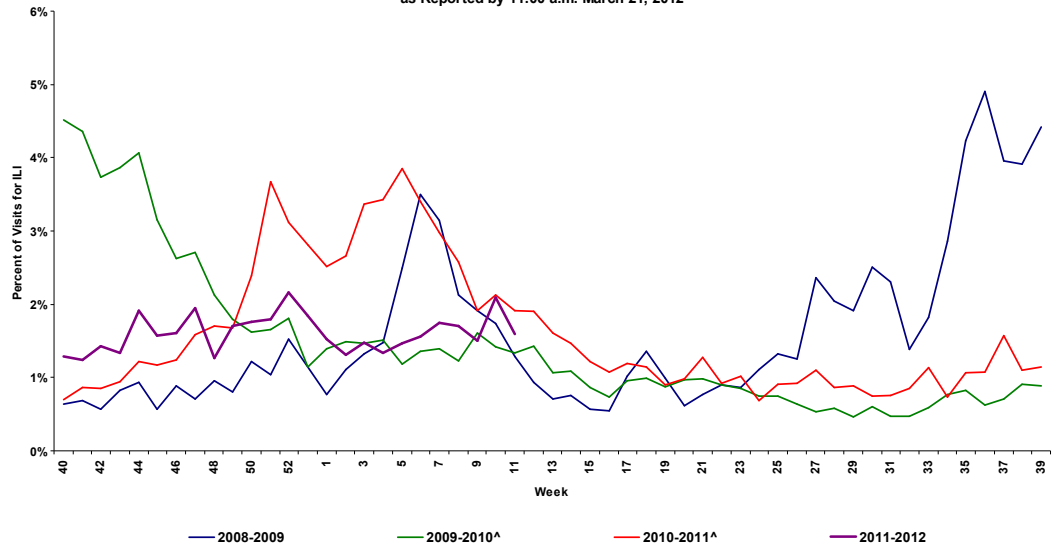
13 of 16 ILINet Super-Sentinels have reported visit counts as of 10:00 a.m., March 21, 2012.

Note: In response to several states' infections this season due to the H3N2 and H1N2 strains of novel influenza A, FDOH is enhancing its virologic surveillance. ILI sentinel physicians have been advised to submit more specimens to the BOL from children under age 15. BOL is able to detect presumptive positives for both novel influenza viruses through routine testing. **No cases of novel influenza A H3N2 or H1N2 have been reported in Florida.** Detailed guidance documents were sent to ILINet sites, ILINet super-sentinel sites, and IISP sites. http://www.doh.state.fl.us/disease_ctrl/epi/httopics/flu/FSPISN/flu_guidance.htm

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

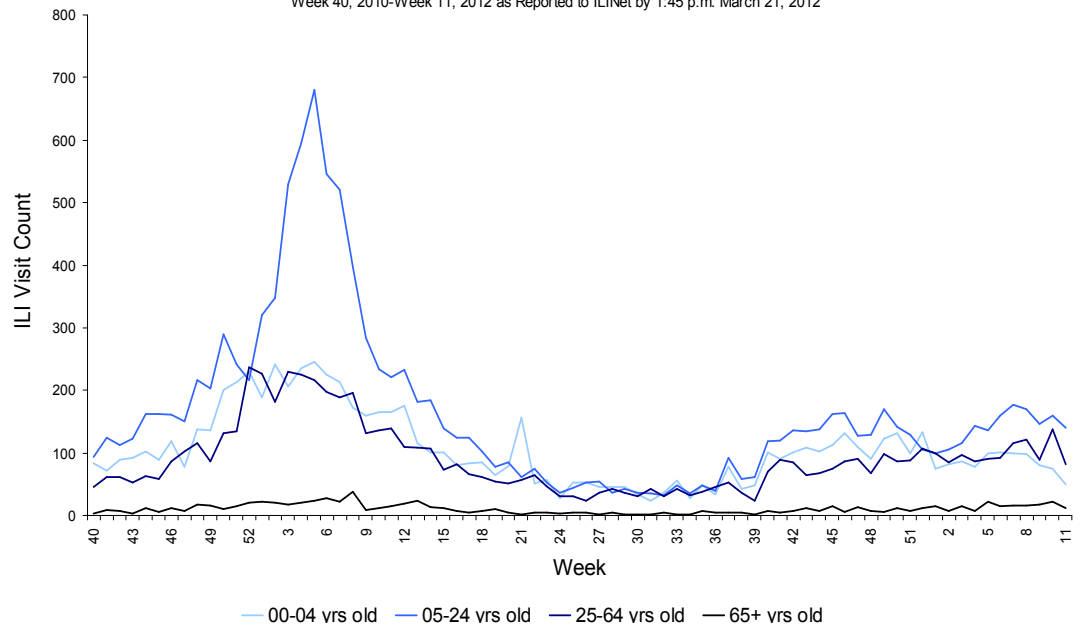
ILI visit counts decreased in all age groups in week 11.

FIGURE 1: Percentage of Visits for Influenza-Like Illness* Reported by ILINet Sentinel Providers Statewide, 2008-2009 (Weeks 40-39), 2009-2010 (Weeks 40-39), 2010-2011 (Week 40-39), and 2011-2012 (Weeks 40-11) as Reported by 11:00 a.m. March 21, 2012



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

FIGURE 2: Influenza-like Illness (ILI) Visit Counts Reported by ILINet Sentinel Providers Statewide by Age Group Week 40, 2010-Week 11, 2012 as Reported to ILINet by 1:45 p.m. March 21, 2012

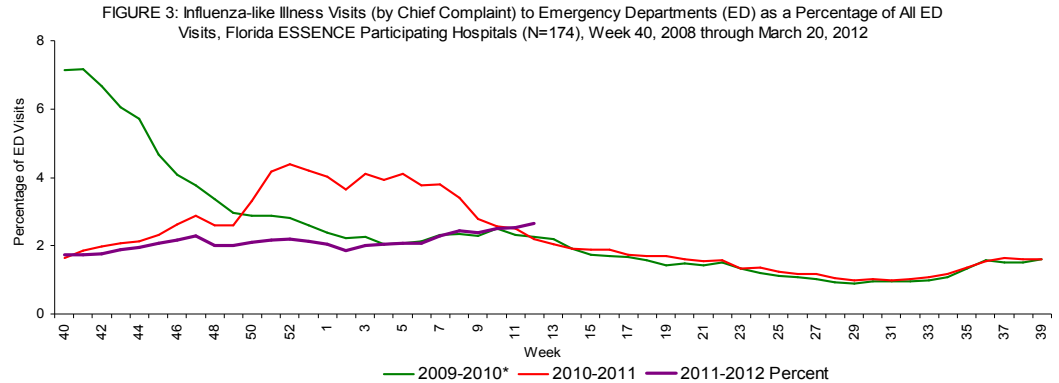


†Data presented here are counts, not proportions as included in Figure 2. This is because age group denominator data is not available through ILINet.

Florida uses ESSENCE for syndromic surveillance, which currently collects data daily from 174 hospital emergency departments (ED). These data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is ILI, which is composed of chief complaints that include the words "influenza" or "flu," or complaints that contain fever plus cough and/or sore throat.

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

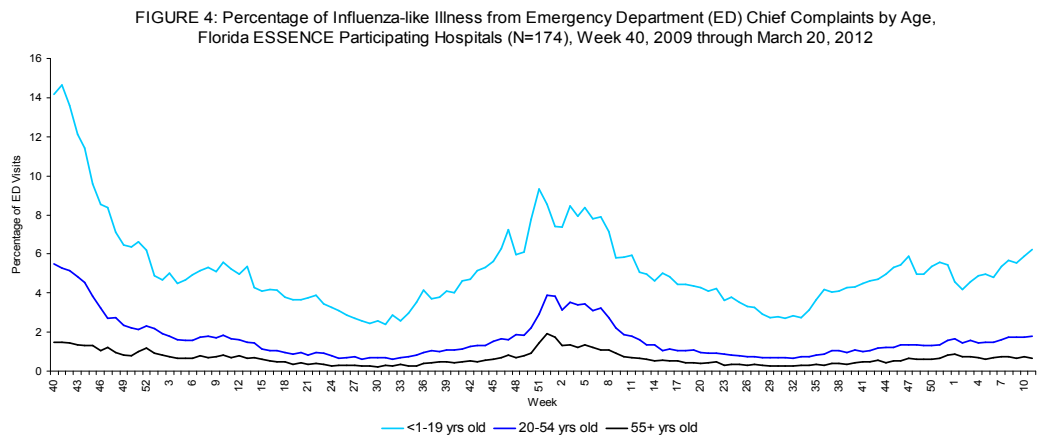
Overall activity for influenza-like illness reported in ESSENCE is at levels seen in previous non-pandemic seasons



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

FIGURE 4 shows percentage of ILI among all ED visits by age group.

Age-specific trends show that the percent ILI the 0-19 age group is increasing. The percent ILI in the 20-55+ age group is flat.



One hundred five ESSENCE participating facilities are able to provide discharge disposition data for their ED visits going back to week 40, 2010. Using this information, the percent of ED visits for ILI that result in hospitalization can be calculated. The highest percentage of admissions is in the 55+ years old age group. The low number of visits in the 55+ age group causes variability in the ILI admission percentage from week to week.

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

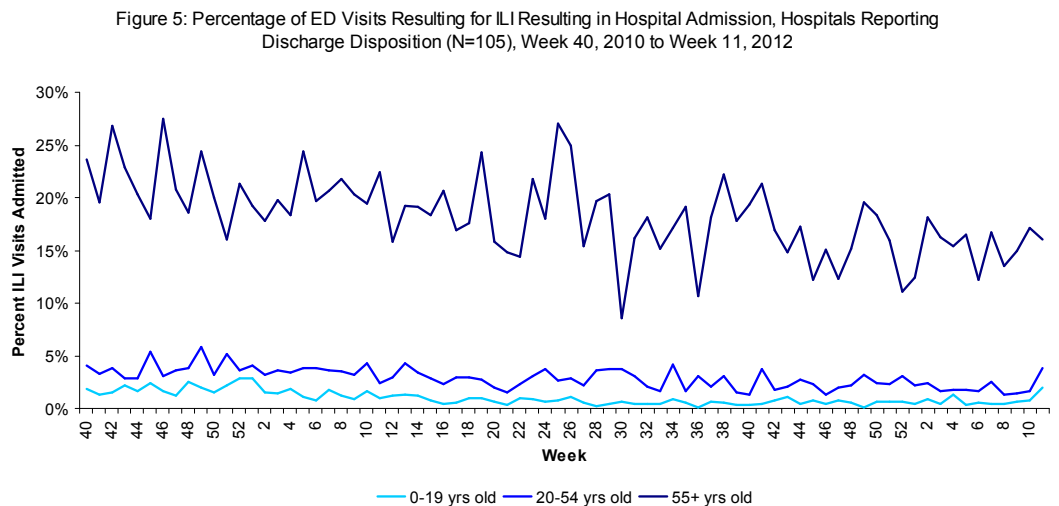


FIGURE 6 - FIGURE 12 describe ED chief complaint data from ESSENCE by Regional Domestic Security Task Force (RDSTF).

ILI activity in ESSENCE is elevated in Regions 5 and 7. ILI levels in all other regions are at or below levels seen in previous non-pandemic seasons at this time.

Map 1: Hospitals Reporting Emergency Department (ED) Data to Florida ESSENCE, March 21, 2012 (N=174)

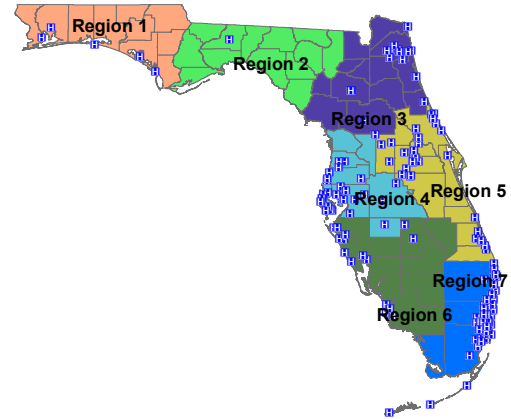


Figure 6: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=5), Week 40, 2008 through March 20, 2012

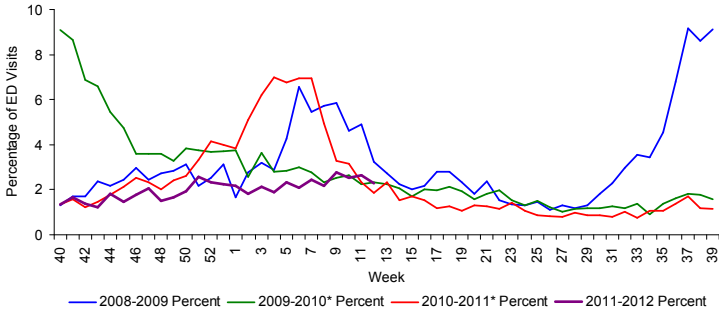


Figure 7: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 2 ESSENCE Participating Hospitals (N=2), Week 1, 2009 through March 20, 2012

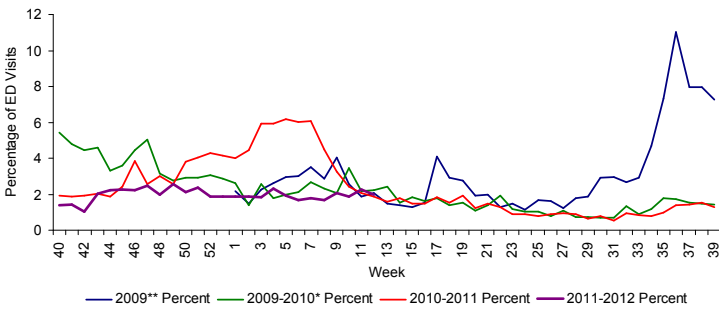


Figure 8: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2008 through March 20, 2012

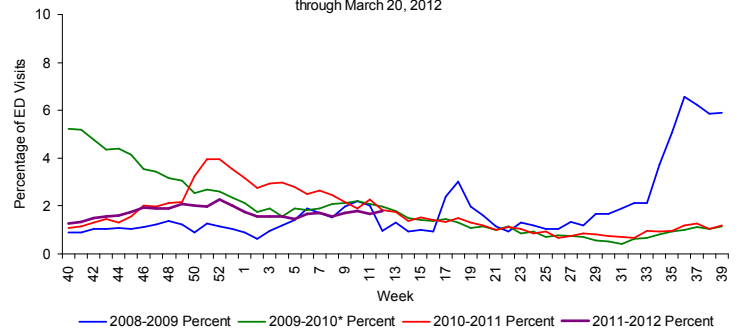


Figure 9: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=31), Week 40, 2008 through March 20, 2012

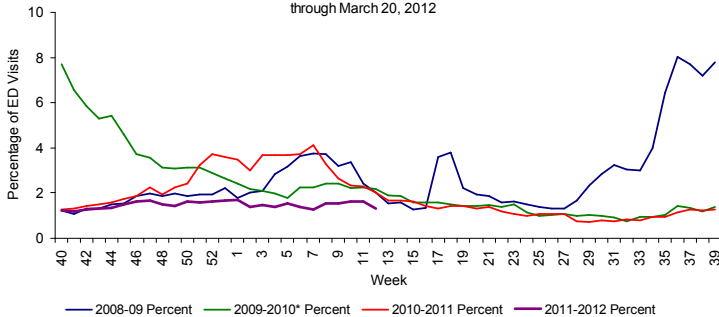


Figure 10: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=49), Week 40, 2008 through March 20, 2012

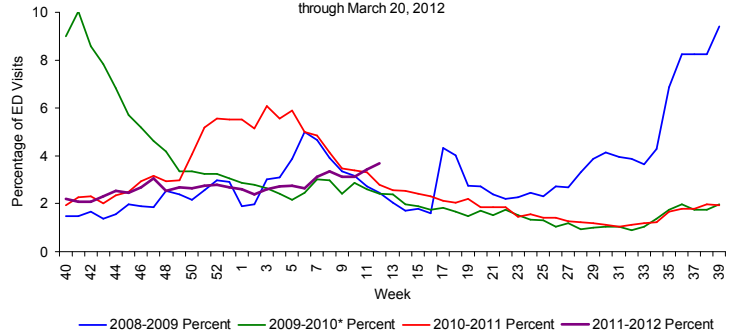


Figure 11: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2008 through March 20, 2012

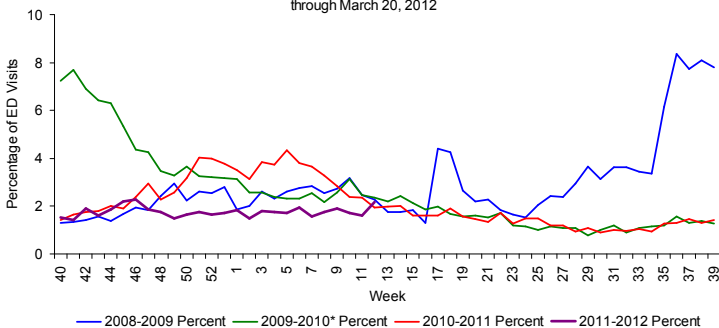


Figure 12: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=48), Week 40, 2008 through March 20, 2012

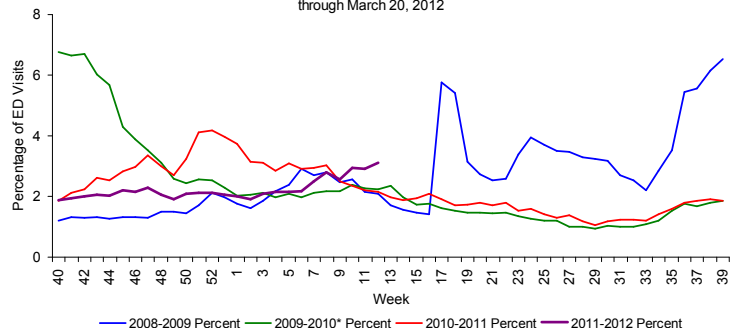


Table 2 shows the number of specimens tested by the Bureau of Laboratories (BOL), how many are influenza positive, and how many are H1N1 or other influenza subtypes.

FIGURE 13 - FIGURE 14 use BOL viral surveillance data to track the progress of influenza infection over time. They include weekly information on how many specimens are tested by the BOL, what proportion of those test positive for influenza, and what subtypes are found for the positive influenza specimens.

This season, small numbers of influenza specimens submitted to BOL tested positive for influenza A H3, 2009 H1N1, and influenza B.

No one strain of influenza is currently predominant in Florida.

Table 2: Bureau of Laboratories Viral Surveillance for Week 11 by Lab Event Date* as reported by 1:30 p.m. March 21, 2012

	Current Week 11	Previous Week 10
Total Specimens Tested	43	41
Influenza Positive Specimens (% of total)	13 (30.23%)	9 (21.9%)
H1N1 Positive Specimens (% of influenza positives)	4 (30.8%)	6 (66.7%)
H3 Influenza A	6 (46.2%)	2 (22.3%)
Influenza A Unspecified	-	-
Influenza B Unspecified	3 (23.1%)	1(11.1%)

Figure 13: Number of Influenza-Positive Specimens Tested by the Florida Bureau of Laboratories (BOL) by Subtype by Lab Event Date* Week 1, 2010 to Week 11, 2012 as Reported in Merlin by 11:30 a.m. March 21, 2012

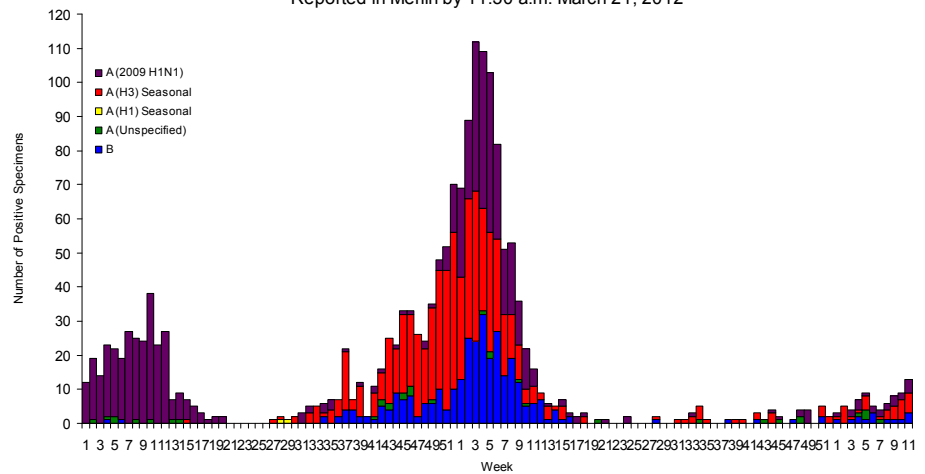
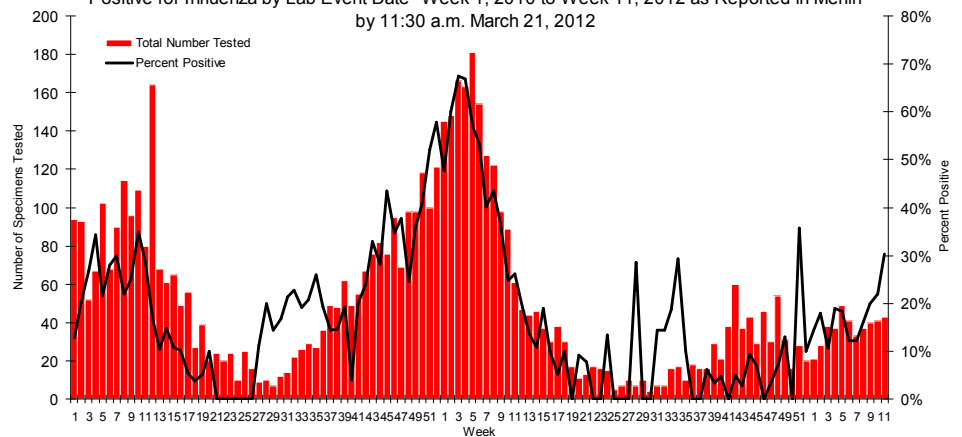


Figure 14: Number of Specimens Tested by Florida Bureau of Laboratories (BOL) and Percent Positive for Influenza by Lab Event Date* Week 1, 2010 to Week 11, 2012 as Reported in Merlin by 11:30 a.m. March 21, 2012



*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.

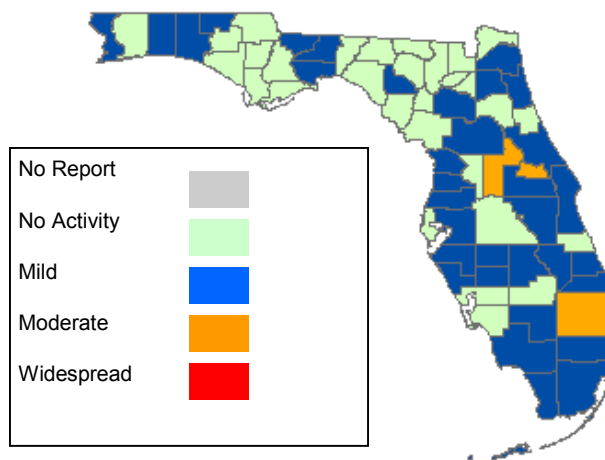
For instructions on how to use the Flu Lab Report, please see the Guide to Flu Lab Report on the Bureau of Epidemiology website: http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/FluLabReportGuide.pdf

As of 12:00 p.m. March 21, 2012 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 11 (ending March 17, 2012) as Reported by 12:00 p.m. March 21, 2012

Activity Level	Week 10 Number of Counties	Week 11 Number of Counties	Week 11 Counties
No Report	-	-	
No Activity	31	30	Baker, Bay, Bradford, Calhoun, Charlotte, Columbia, Dixie, Flagler, Franklin, Gilchrist, Glades, Gulf, Hamilton, Indian River, Jackson, Jefferson, Lee, Levy, Liberty, Madison, Nassau, Pinellas, Polk, Putnam, Santa Rosa, Sumter, Suwannee, Taylor, Union, Washington
Mild	34	34	Alachua, Brevard, Broward, Citrus, Clay, Collier, Dade, Desoto, Duval, Escambia, Gadsden, Hardee, Hendry, Hernando, Highlands, Hillsborough, Holmes, Lafayette, Leon, Manatee, Marion, Martin, Monroe, Okaloosa, Okeechobee, Orange, Osceola, Pasco, Sarasota, St. Johns, St. Lucie, Volusia,
Moderate	2	3	Lake, Palm Beach, Seminole
Widespread	-	-	-

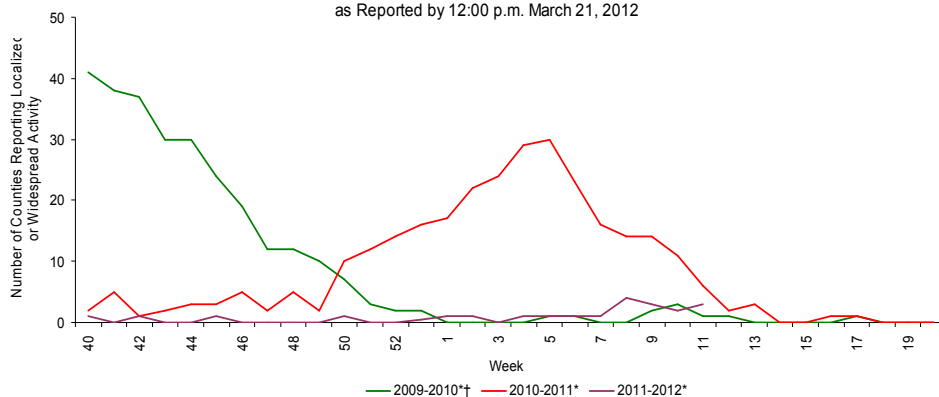
Map 2: Weekly County Influenza Activity for Week 11 as Reported by 12:00 p.m. March 21, 2012



Most counties reported no or mild activity. Three counties reported moderate activity.

FIGURE 15 shows the number of counties reporting localized or widespread activity, 2008-2009, 2009-2010, and 2010-2011.

FIGURE 15: Number of Counties Reporting Moderate (Localized) or Widespread Activity, 2009-2010 (Weeks 40-20), 2010-2011 (Weeks 40-20), and 2011-2012 (Weeks 40-11) as Reported by 12:00 p.m. March 21, 2012



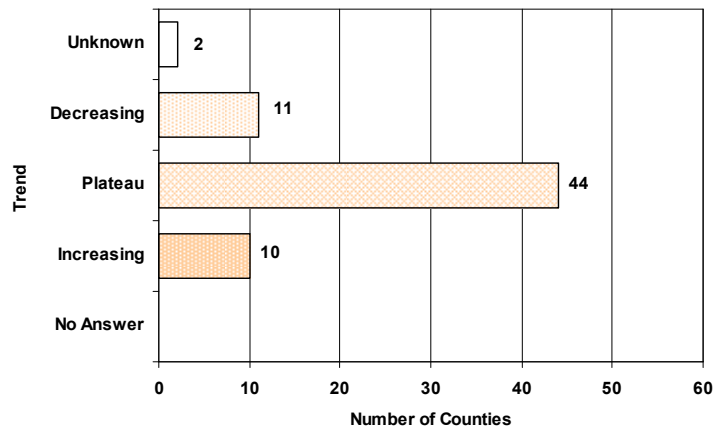
* There is no week 53 during the 2007-2008, 2009-2010, and 2010-2011 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

† As of Week 40 2010, the influenza activity code categorizations have changed. Please see http://www.doh.state.fl.us/disease_ctr/epi/FluActivityDef.htm for explanations of previous year activity code interpretations.

County influenza activity data is reported to the Bureau of Epidemiology through EpiGateway on a weekly basis by the county influenza coordinator. Specific information is requested about laboratory results, outbreak reports, and surveillance system activity. Figures 16-25 displayed below reflect a county's assessment of influenza activity within their county as a whole as well as influenza activity within specific settings. For week 11, eleven counties indicated that activity was decreasing, 44 indicated it was about the same as previous weeks, and ten indicated that activity was increasing.

FIGURE 16 shows the assessment of the overall influenza activity trend in each county as reported by county health department flu coordinators for week 11 as of 8:30 a.m. March 21, 2012.

FIGURE 16: Assessment of Overall Influenza Activity Trend



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

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

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

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

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

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

County influenza settings assessment guides are available at:

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

FIGURE 17 - FIGURE 18 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 11 as of 8:30 a.m. March 21, 2012.

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

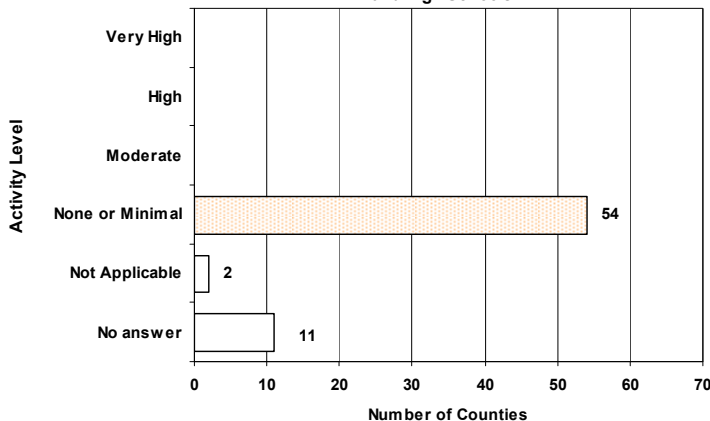


FIGURE 18: Assessment of Influenza Activity in Colleges and Universities

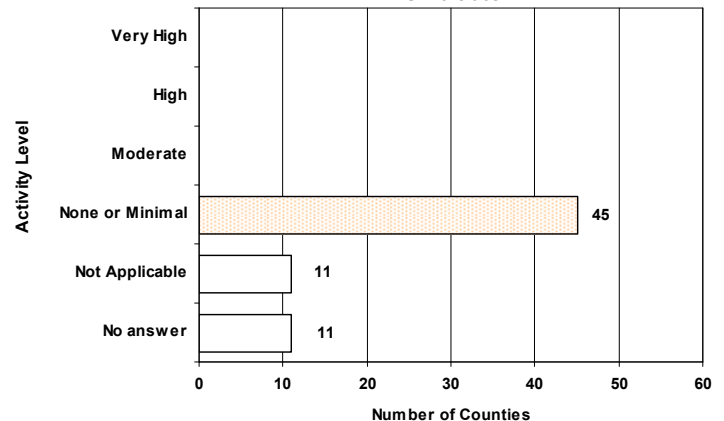
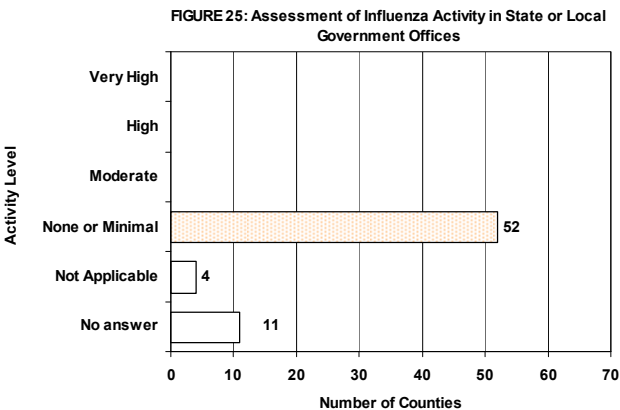
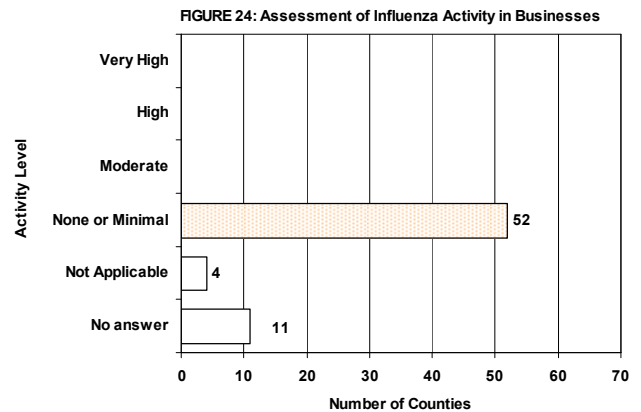
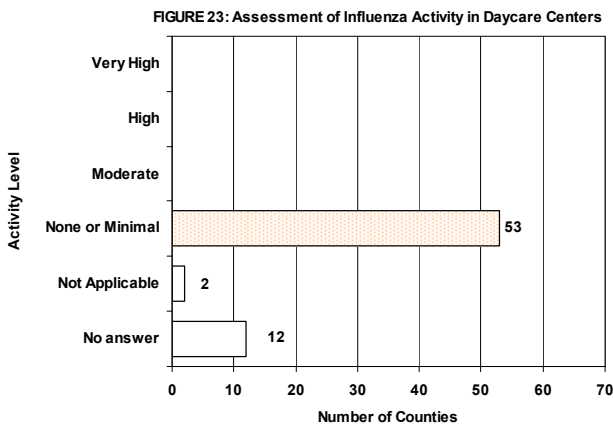
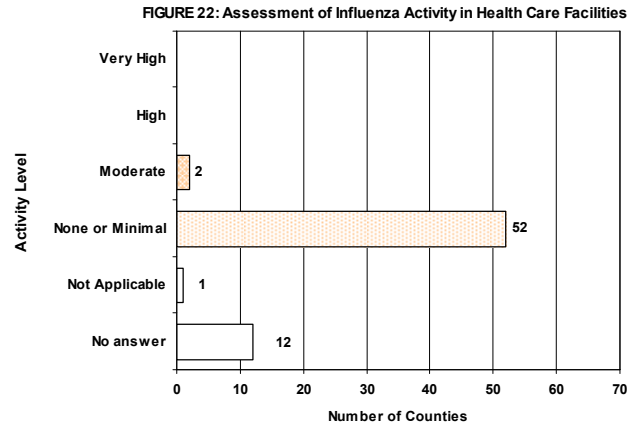
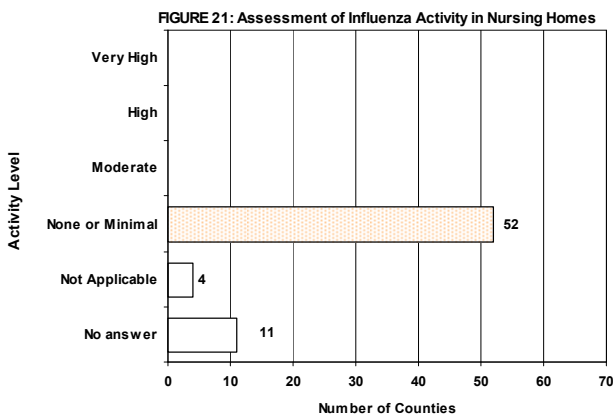
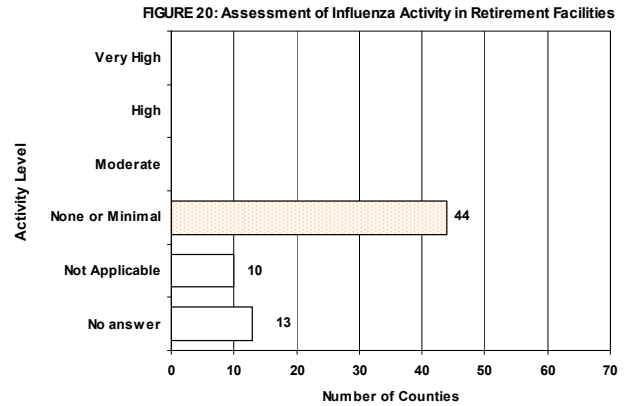
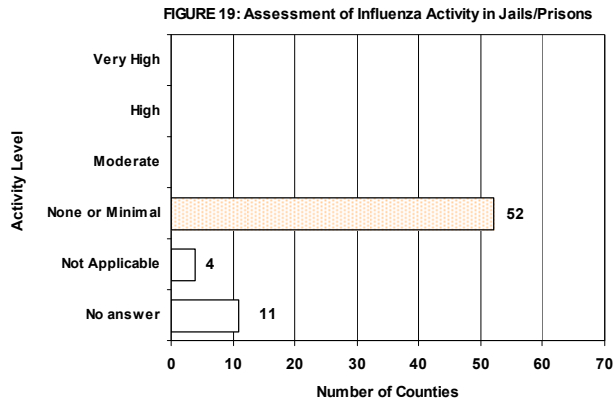


FIGURE 19 - FIGURE 25 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 11 as of 12:00 p.m. March 21 2012.



FDOH started the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS) in 2006 in order to more timely assess the number of pneumonia and influenza deaths occurring in the state. This system was modeled on the CDC's 122 Cities Mortality Reporting System. Each week, the vital statistics office in the 24 most populous counties in Florida manually reviews the death certificates received for the previous week. Any mention of pneumonia or influenza on the death certificate, with certain prescribed exceptions, is counted as a pneumonia or influenza death. These counts, by age group, are then reported to the state through EpiGateway.

FIGURE 26 shows Pneumonia and Influenza Deaths for 24 Florida Counties, 2008-2009, 2009-2010, 2010-11, and 2011-12

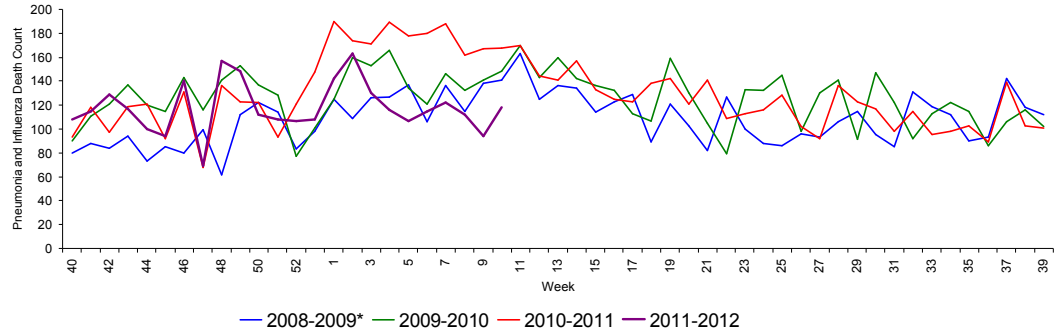
For week 11 (ending March 17, 2012) there were:

- **118 deaths reported**
- **Upper bound of 95% confidence interval for prediction: 181 deaths**
- **No excess deaths**

23 of 24 participating counties reported for week 11.

Note: Several counties have begun piloting an electronic vital records system. Numbers may change as new data from this system are received.

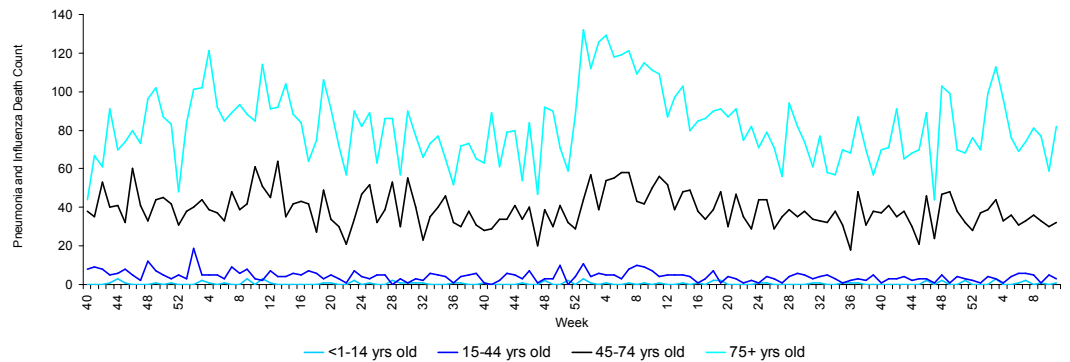
FIGURE 26: Pneumonia and Influenza Deaths for 24 Florida Counties, 2008-2009 (Weeks 40-39), 2009-2010 (Weeks 40-39), 2010-2011 (Week 40-38), and 2011-2012 (Week 39-11) as Reported to FPIMSS by 5:00 p.m. March 17, 2012



*There is no week 53 for the 2009-2010, and 2010-2011 and 2011-2012 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

FIGURE 27 shows Pneumonia and Influenza Deaths for 24 Florida Counties, week 40, 2009 - week 11, 2012 as reported to FPIMSS by 5:00 p.m. March 10, 2012

FIGURE 27: Pneumonia and Influenza Deaths in Four Age Groups for 24 Florida Counties, Week 40, 2009-Week 11, 2011 as Reported to FPIMSS by 5:00 p.m. March 17, 2012



Influenza and ILI Outbreaks

In week 11 there were zero influenza or ILI outbreaks reported into EpiCom.

Nine influenza or ILI outbreaks have been reported into EpiCom in the 2011-12 influenza season.

Pediatric Influenza-Associated Mortality

In week 11 there were two influenza-associated pediatric deaths reported in Miami-Dade County. The two cases were not epidemiologically linked.

Two Influenza-associated pediatric deaths have been reported in Florida so far in the 2011-12 season.

The National Respiratory and Enteric Virus Surveillance System (NREVSS) collects data from laboratory facilities around the country on a weekly basis. NREVSS monitors temporal and geographic patterns of RSV, human parainfluenza viruses, human metapneumo virus (HMPV), respiratory and enteric adenoviruses, and rotavirus. Florida has over 30 participating laboratory facilities.

FIGURE 28 shows the percentage of positive tests for multiple respiratory viruses reported by NREVSS-participating laboratories in Florida

The six respiratory viruses summarized in Figure 1 are:

- RSV
- Parainfluenza 1-3
- Adenovirus
- HMPV
- Rhinovirus
- Influenza

