



Week 7: February 14-February 20, 2010



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 6. No states reported widespread activity, while the highest proportion of states (including Florida) reported sporadic activity.

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 continues to circulate, and we have seen slight increases in some of our surveillance systems consistent with previous winter influenza seasons. No counties report localized or widespread influenza activity, the two highest activity levels. We will continue to monitor for a resurgence of influenza activity.
- Virtually all current infection seen throughout the western hemisphere and most of the rest of the world is 2009 H1N1. Neither a different influenza virus nor any other viruses that can cause influenza-like illness have started causing significant illness in Florida. RSV, a virus that affects infants and toddlers, is active throughout the state, as is usual this time of year.

Weekly state influenza activity: Sporadic

This week Florida reported Sporadic influenza activity to the CDC for the seventh week in a row. Multiple indicators of influenza activity in Florida continue to show low levels of influenza activity. There were no outbreaks or H1N1 deaths in week 7, and no counties reported localized or widespread activity.

TABLE 1: Summary of Florida Influenza-Like Illness (ILI) Activity for Week 7

| Measure | Difference from previous week | Current week 7 | Previous week 6 | Page of Report |
|---|-------------------------------|----------------|-----------------|----------------|
| Overall statewide activity code reported to CDC | No change | Sporadic | Sporadic | 1 |
| Percent of visits to ILINet providers for ILI | ▲ 0.3 | 1.4% | 1.1% | 2 |
| Percent of emergency department visits (from ESSENCE) due to ILI | ▲ 0.4 | 2.7% | 2.3% | 4 |
| Percent of hospital admissions (from ESSENCE) due to ILI | ▼ 1.5 | 3.7% | 5.2% | 4 |
| Percent of laboratory specimens that were positive for influenza | ▲ 7.5 | 34.4% | 26.9% | 6 |
| Percent of positive influenza specimens that were identified as 2009 H1N1 | ▼ 7.9 | 81.0% | 88.9% | 6 |
| Number of counties reporting localized influenza activity | ▼ 1 | 0 | 1 | 7 |
| Number of counties reporting widespread influenza activity | No Change | 0 | 0 | 7 |
| Number of counties reporting increasing influenza activity | ▼ 3 | 4 | 7 | 8 |
| Number of counties reporting decreasing influenza activity | ▼ 2 | 19 | 21 | 8 |
| Number of recent hospitalizations in confirmed 2009 H1N1 influenza cases | ▲ 1 | 6 | 5 | 13 |
| Number of recent deaths in confirmed 2009 H1N1 influenza cases | ▼ 2 | 0 | 2 | 12 |
| Number of ILI outbreaks reported in Epi Com | No Change | 0 | 0 | 14 |

Produced on:
February 24, 2010

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)

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Weekly state influenza activity:
Sporadic

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 40-7)

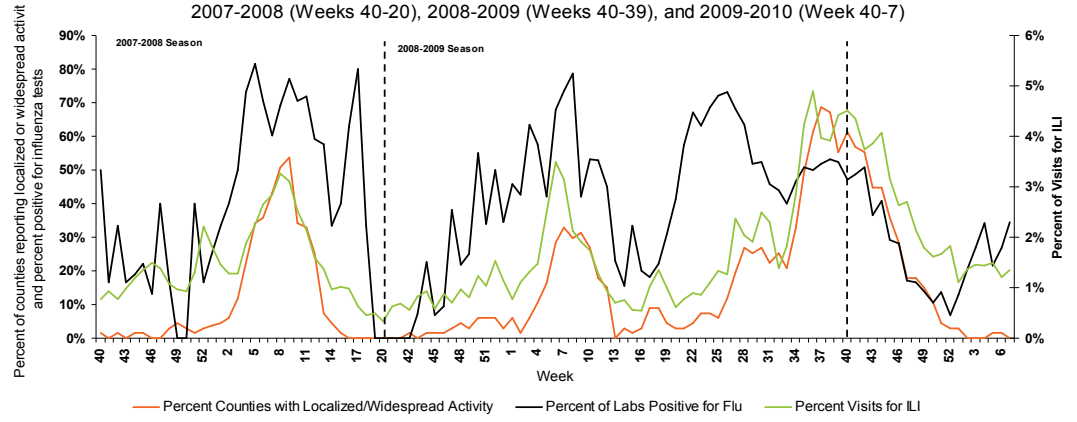


FIGURE 1 shows the progression of the 2007-2008, 2008-2009, and 2009-2010 Florida influenza seasons as monitored by three surveillance systems: ILINet, Bureau of Laboratories viral surveillance, and county activity levels.

[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 40-7) as Reported by 5:00 p.m. February 23, 2010

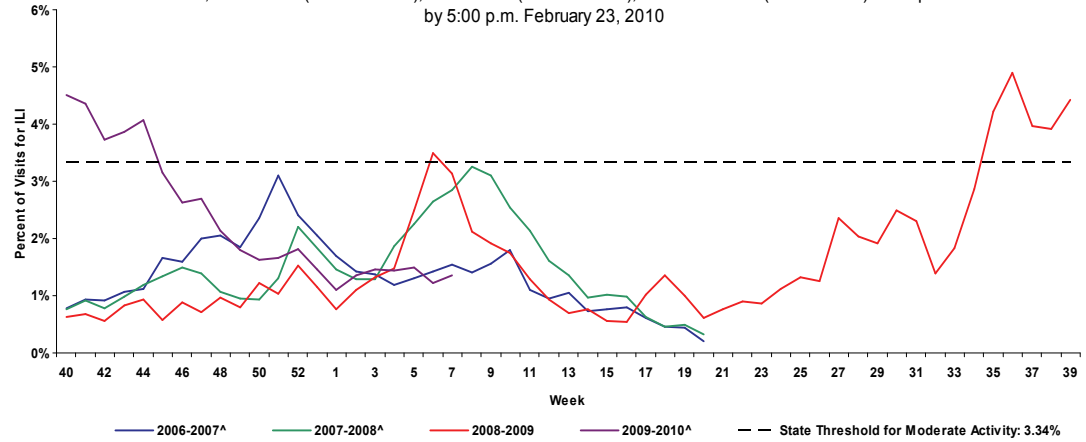


FIGURE 2 shows the percentage of visits for influenza-like illness* reported by ILINet Sentinel Providers statewide.

Week 7 is the 14th week in a row that Florida has been below the threshold for moderate activity. Influenza activity is similar to previous influenza seasons at this time.

*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.
 ^There is no week 53 during the 2006-2007, 2007-2008, and 2009-2010 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

FIGURE 3: Influenza-like Illness (ILI) Visit Counts Reported by ILINet Sentinel Providers Statewide by Age Group Week 40, 2008-Week 7, 2010 as Reported to ILINet by 12:00 p.m. February 23, 2010

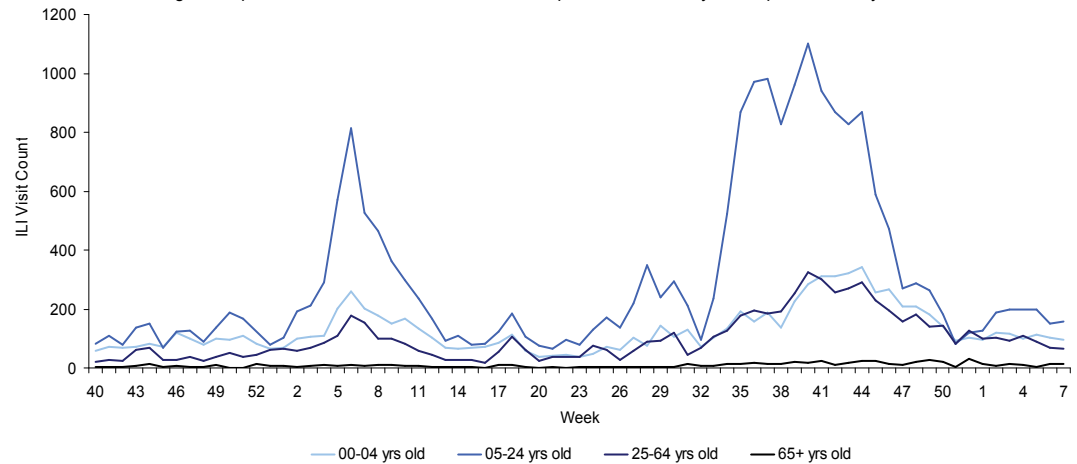


FIGURE 3 shows influenza-like illness (ILI) visit counts reported by ILINet sentinel providers statewide by age group.

*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

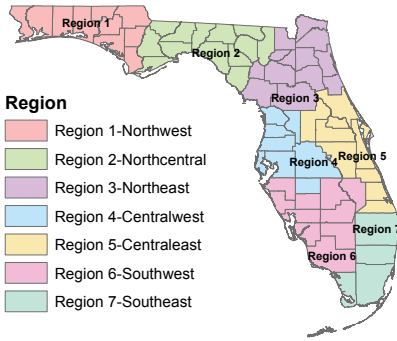


TABLE 2: ILINet Providers and Percent of Visits for ILI by Region, Week 6, as Reported by 10:30 a.m. February 23, 2010

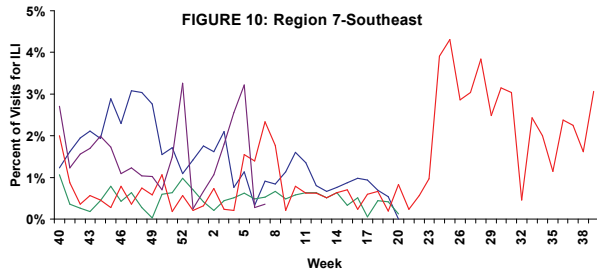
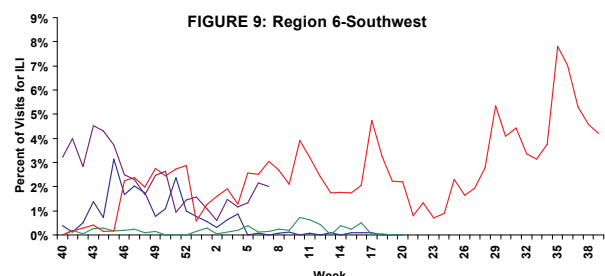
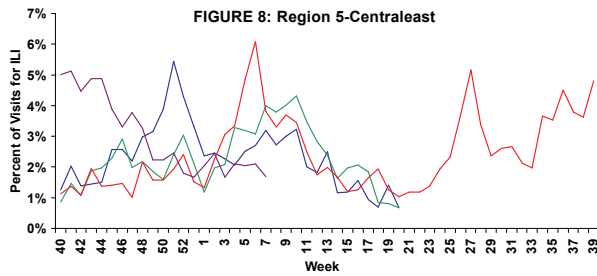
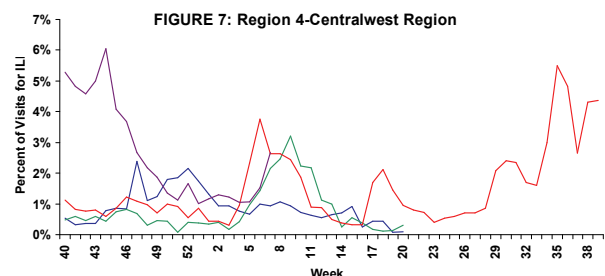
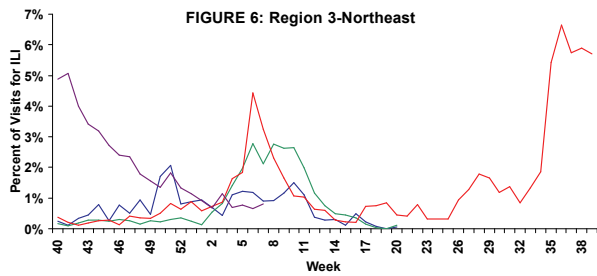
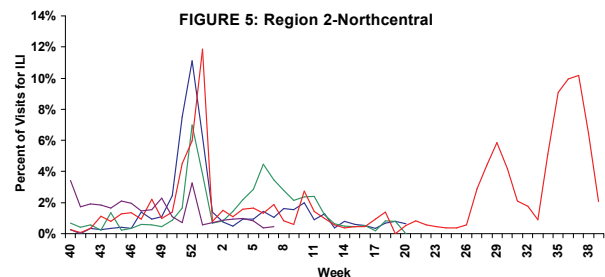
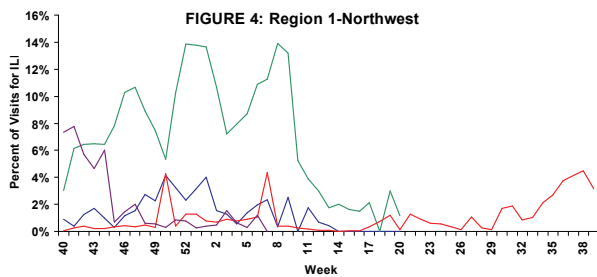
| | Number of Participating | Providers that Reported | Percent Visits for ILI |
|-----------------------|-------------------------|-------------------------|------------------------|
| Region 1-Northwest | 18 | 5 | 27.78% |
| Region 2-Northcentral | 5 | 2 | 40.00% |
| Region 3-Northeast | 23 | 11 | 47.83% |
| Region 4-Centralwest | 39 | 18 | 46.15% |
| Region 5-Centraleast | 50 | 30 | 60.00% |
| Region 6-Southwest | 20 | 5 | 25.00% |
| Region 7-Southeast | 25 | 10 | 40.00% |
| Total | 180 | 81 | 45.00% |

TABLE 2 shows the ILI activity by Regional Domestic Security Task Force (RDSTF) as reported by Florida ILINet physicians for week 7 (ending February 20, 2010).

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 all 7 regions are reporting the percentage of visits due to ILI that is similar to what has been seen in previous years. Please refer to table above for the number of providers reporting for each region. Data should be interpreted with caution due to the low number of providers reporting in some regions. Numbers will change as more data are received.

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 40-7) as Reported by 12:00 p.m. February 23, 2010.



Graph Legend

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

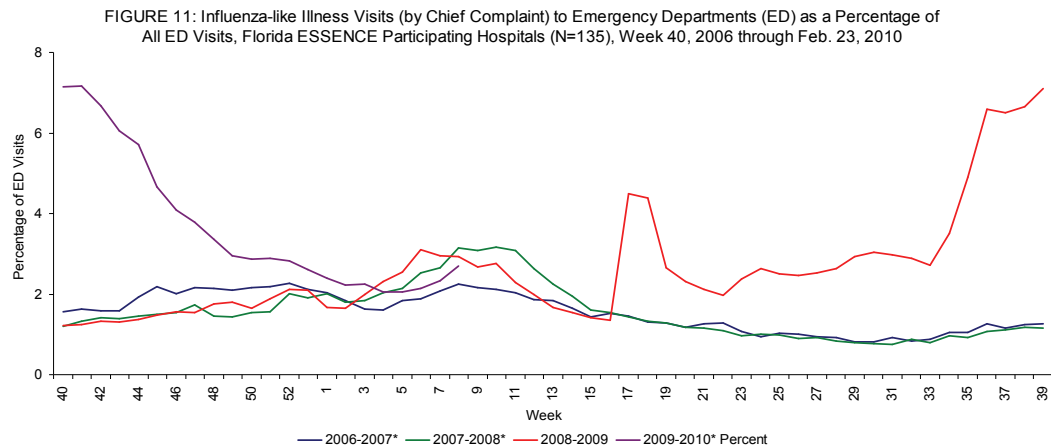
*There is no week 53 during the 2006-07, 2007-08, and 2009-10 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data daily from 133 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.

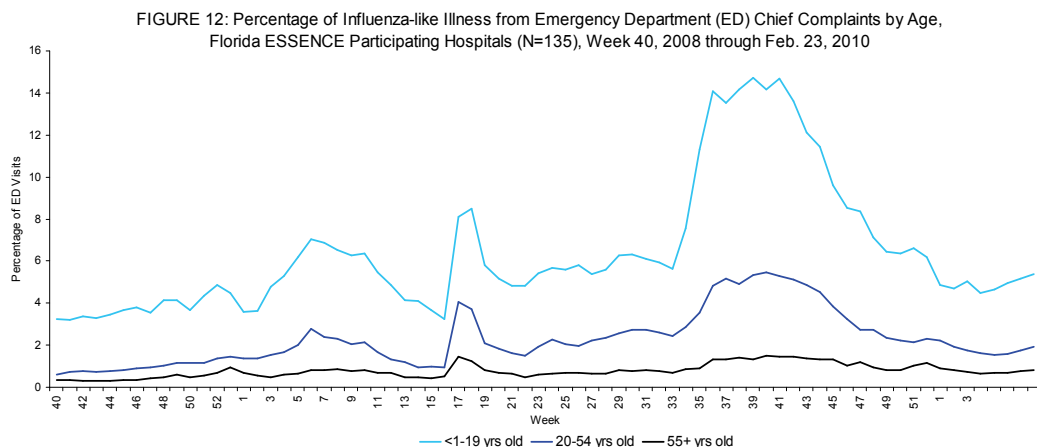
Overall activity for influenza-like illness reported in ESSENCE is near expected levels for this time of year.

The majority of the increase in ED visits is occurring in younger age groups. Although in the previous 14-15 weeks the percent of ED visits has either stabilized or has declined in the majority of regions and age groups, there have been slight increases in recent weeks. These data are based on the patient's chief complaint and may not reflect the actual diagnosis.



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



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.

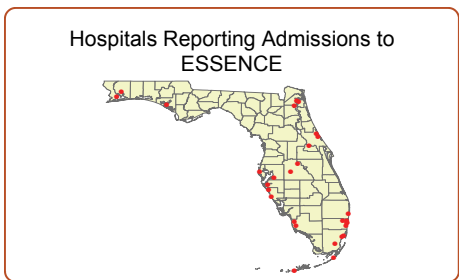


FIGURE 13: Percentage Admitted to Hospital for Influenza-Like Illness (ILI) Among All Persons Admitted in the Hospital through the ED Based on ED Chief Complaint, Hospitals Reporting Admissions Data (N=30) for Week 40, 2008 to Week 7, 2010

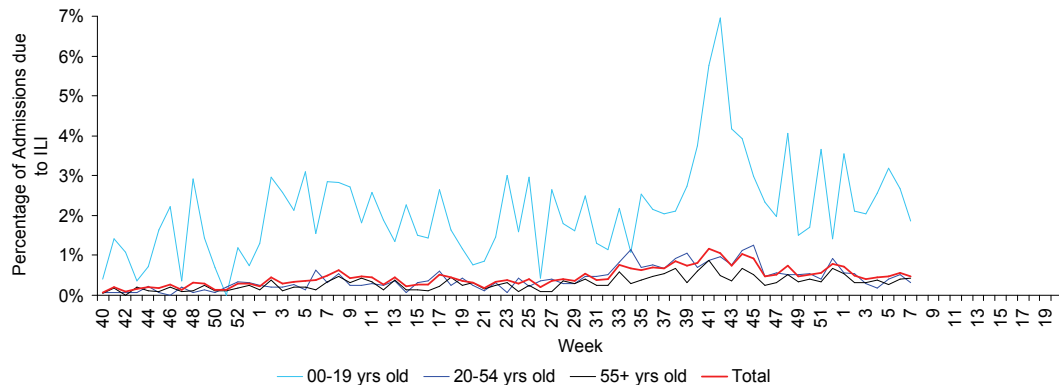


FIGURE 14 - FIGURE 19 describe emergency department chief complaint data from ESSENCE by Domestic Security Task Force Region (Region 2 does not have any participating facilities in ESSENCE and therefore is not displayed).

- All regions' percentage of ILI among emergency department (ED) visits have stabilized and are at levels similar to normal influenza seasons.
- 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, February 24, 2010 (N=135)

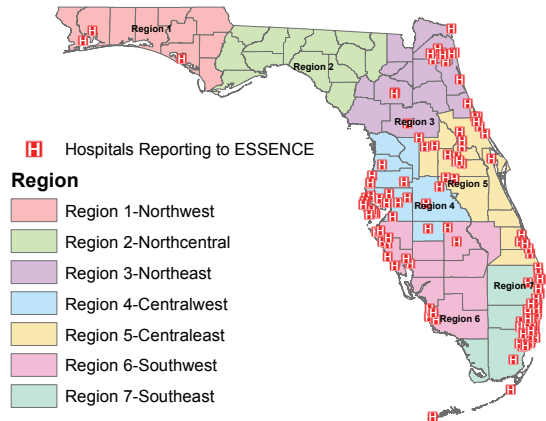


FIGURE 14: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 1 ESSENCE Participating Hospitals (N=3), Week 40, 2007 through Feb. 23, 2010

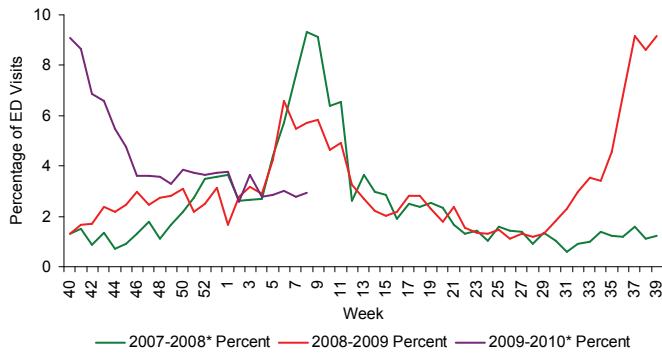


FIGURE 15: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 3 ESSENCE Participating Hospitals (N=14), Week 40, 2007 through Feb. 23, 2010

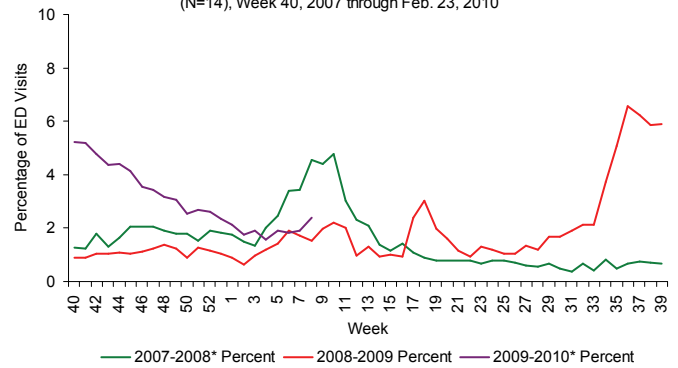


FIGURE 16: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 4 ESSENCE Participating Hospitals (N=31), Week 40, 2006 through Feb. 23, 2010

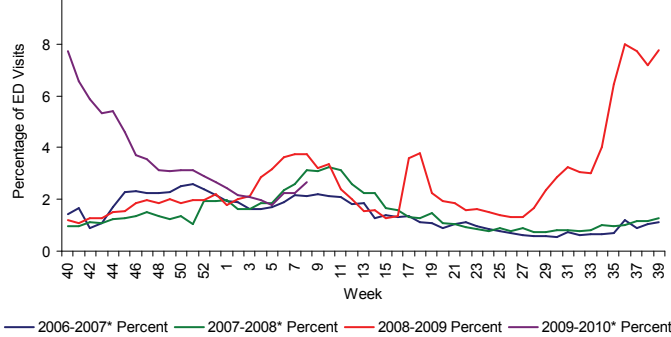


FIGURE 17: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 5 ESSENCE Participating Hospitals (N=24), Week 40, 2007 through Feb. 23, 2010

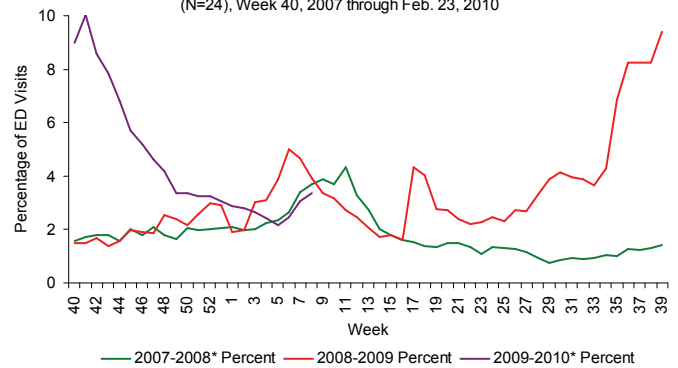


FIGURE 18: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 6 ESSENCE Participating Hospitals (N=15), Week 40, 2007 through Feb. 23, 2010

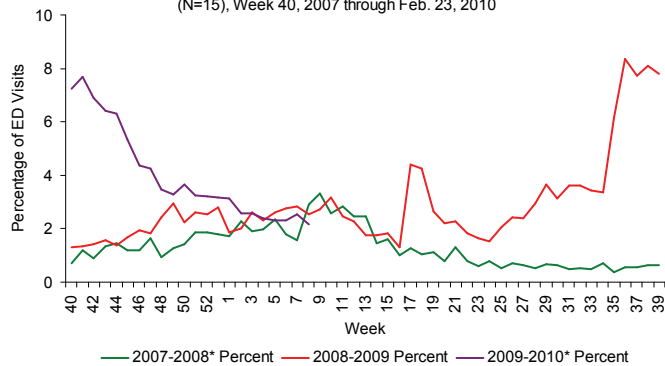
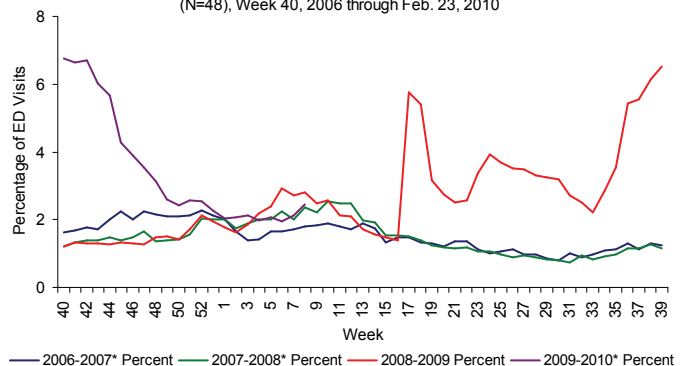


FIGURE 19: Percentage of Influenza-Like Illness from Emergency Department (ED) Chief Complaints, RDSTF Region 7 ESSENCE Participating Hospitals (N=48), Week 40, 2006 through Feb. 23, 2010



*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 7 by Lab Event Date* as reported by 9:00 a.m. February 23, 2010

| | Current Week 7 | Previous Week 6 |
|--|----------------|-----------------|
| Total Specimens Tested | 61 | 67 |
| Influenza Positive Specimens (% of total) | 21 (34.4%) | 18 (26.9%) |
| H1N1 Positive Specimens (% of influenza positives) | 17 (81.0%) | 16 (88.9%) |
| Influenza A Unspecified | 4 (0.0%) | 1 (5.6%) |
| Influenza B | - | 1 (5.6%) |

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.
- Six specimens have tested positive for Influenza B since week 39.
- One in week 6, one in week 4, two in week 44, one in week 40, one in week 39

• Influenza B, unlike influenza A, does not have significant pandemic potential.

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 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 7, 2010 as Reported in Merlin by 9:00 a.m. February 23, 2010

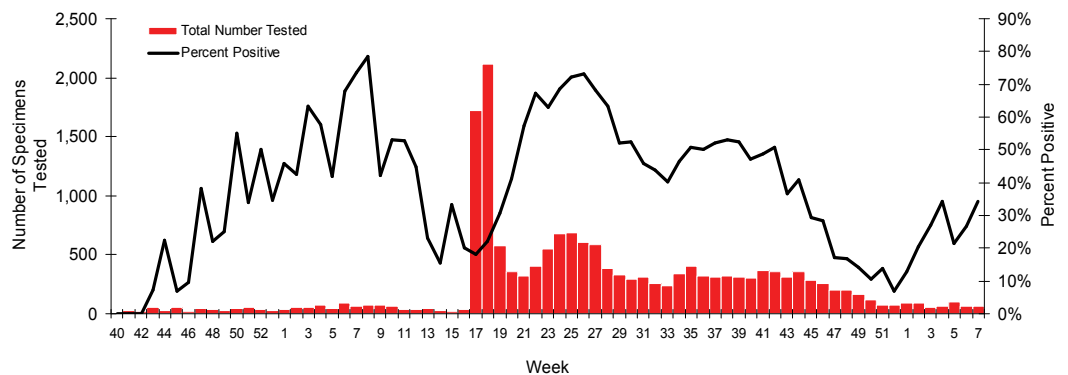
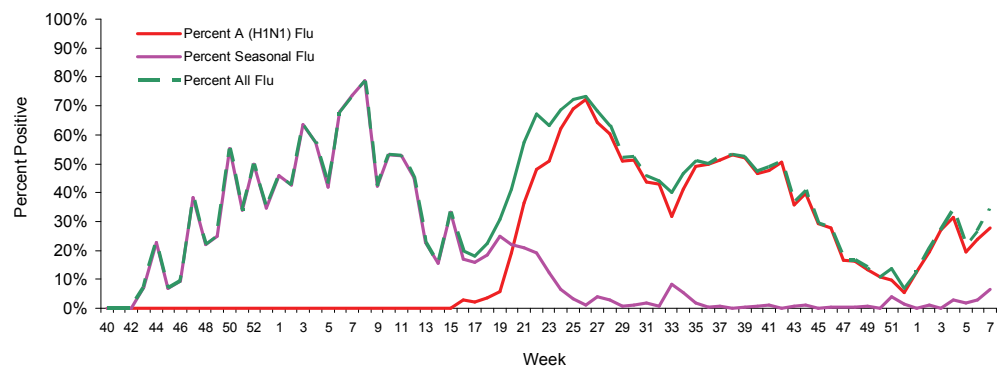


FIGURE 22: Percentage of Specimens Tested by Florida Bureau of Laboratories (BOL) Positive for Influenza by Subtype by Lab Event Date* Week 40, 2008 to Week 7, 2010 as Reported in Merlin by 9:00 a.m. February 23, 2010



*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:

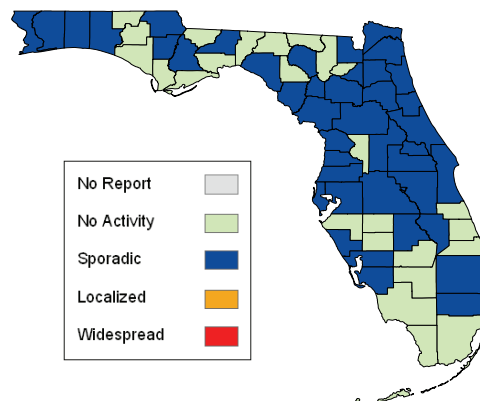
http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/FluLabReportGuide.pdf

As of 12:00 p.m. February 24, 2010 a total of 67 (100%) counties had reported their weekly level of influenza activity. This is the thirteenth 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 7 (ending February 20, 2010) as Reported by 12:00 p.m. February 24, 2010

| Activity Level | Week 6 Number of Counties | Week 7 Number of Counties | Week 7 Counties |
|----------------|---------------------------|---------------------------|--|
| No Report | 0 | - | |
| No Activity | 29 | 25 | Bay, Collier, Columbia, Dade, Desoto, Franklin, Gadsden, Glades, Gulf, Hamilton, Hardee, Hendry, Holmes, Indian River, Jefferson, Lafayette, Madison, Manatee, Martin, Monroe, St. Lucie, Sumter, Union, Wakulla, Washington |
| Sporadic | 37 | 42 | Alachua, Baker, Bradford, Brevard, Broward, Calhoun, Charlotte, Citrus, Clay, Dixie, Duval, Escambia, Flagler, Gilchrist, Hernando, Highlands, Hillsborough, Jackson, Lake, Lee, Leon, Levy, Liberty, Marion, Nassau, Okaloosa, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Putnam, St. Johns, Santa Rosa, Sarasota, Seminole, Suwannee, Taylor, Volusia, Walton |
| Localized | 1 | 0 | - |
| Widespread | 0 | 0 | - |

Map 3: Weekly County Influenza Activity for Week 7 as Reported by 12:00 p.m. February 24, 2010

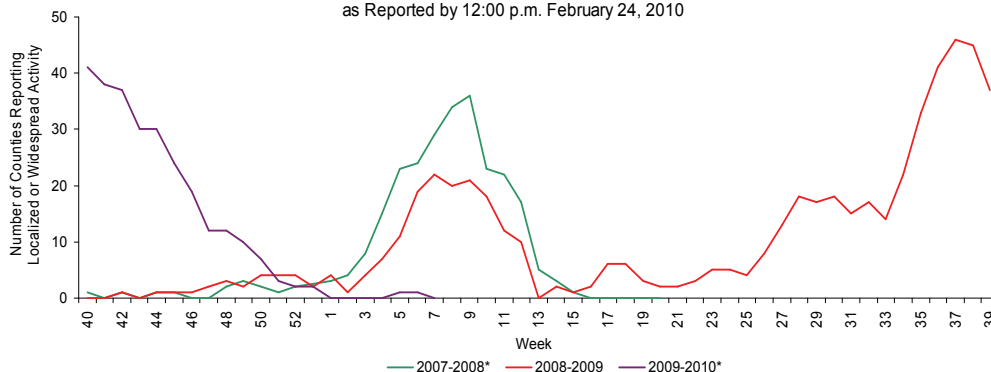


No counties report widespread or localized influenza activity.

Activity is slightly lower what was reported last year at this time.

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

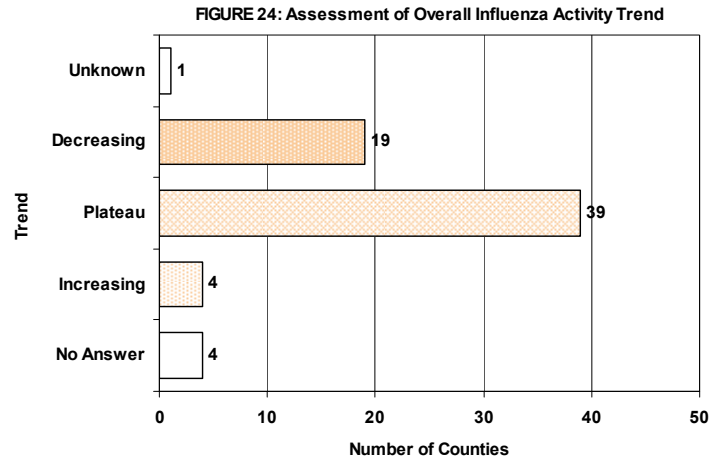
FIGURE 23: Number of Counties Reporting Localized or Widespread Activity, 2007-2008 (Weeks 40-20), 2008-2009 (Weeks 40-39), and 2009-2010 (Weeks 40-7) as Reported by 12:00 p.m. February 24, 2010



County flu activity level definitions are now available online at: http://www.doh.state.fl.us/disease_ctr/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 February 20th, 19 counties indicated that activity was decreasing, 39 indicated it was about the same, and 4 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 7 as of 12:00 p.m. February 24, 2010.



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 25 - FIGURE 26 show the activity levels in various facilities by county as reported by county health department flu coordinators for week 7 as of 12:00 p.m. February 24, 2010.

FIGURE 25: Assessment of Influenza Activity in Elementary, Middle, and High Schools

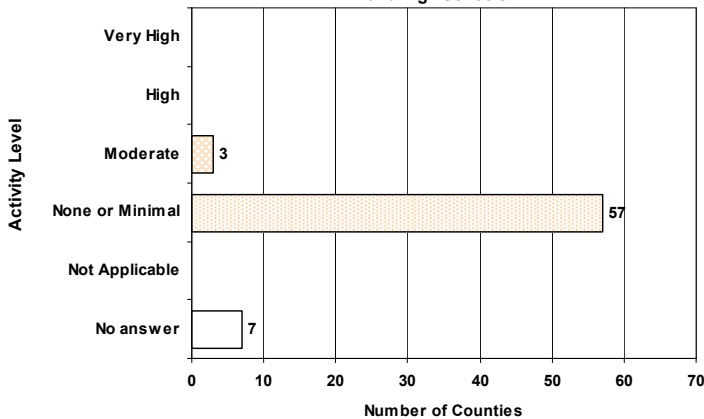


FIGURE 26: Assessment of Influenza Activity in Colleges and Universities

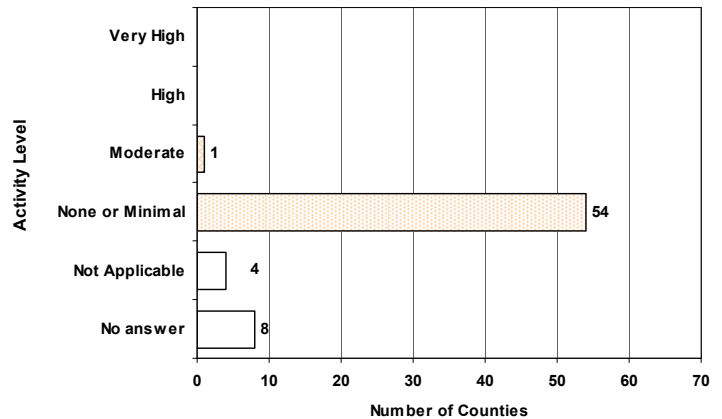
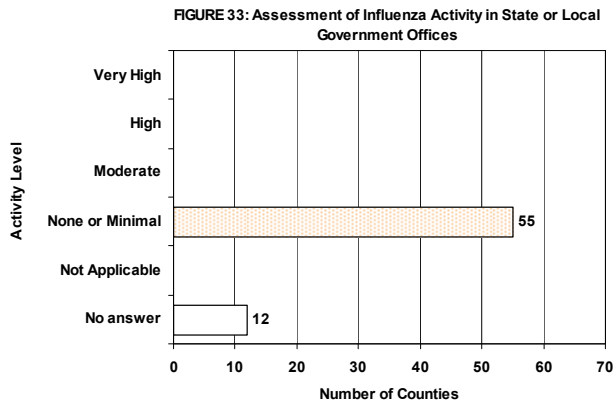
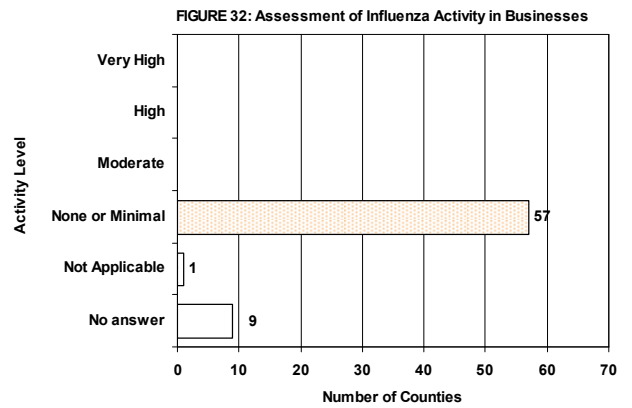
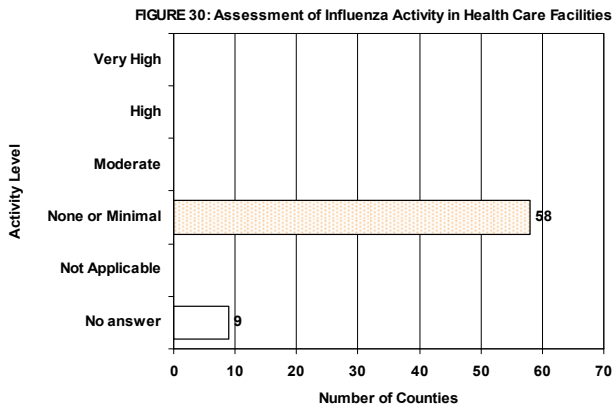
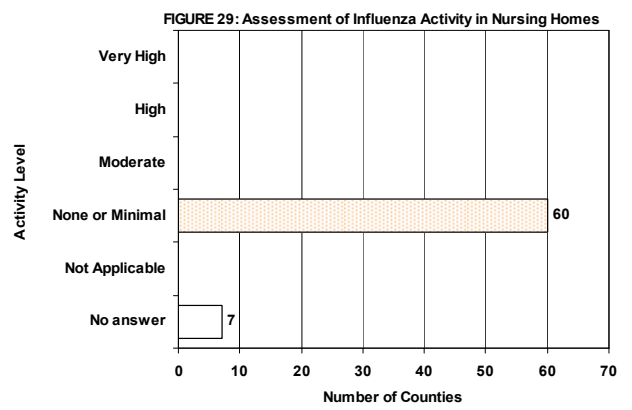
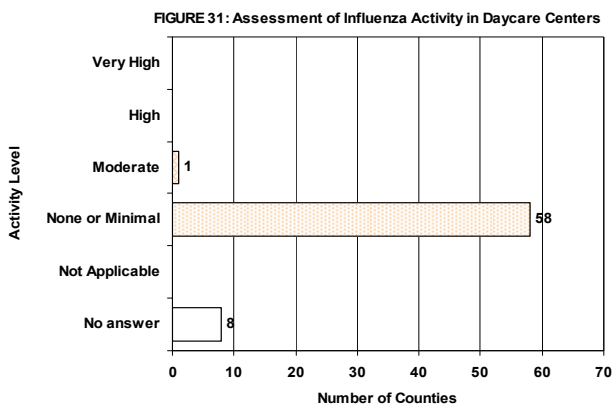
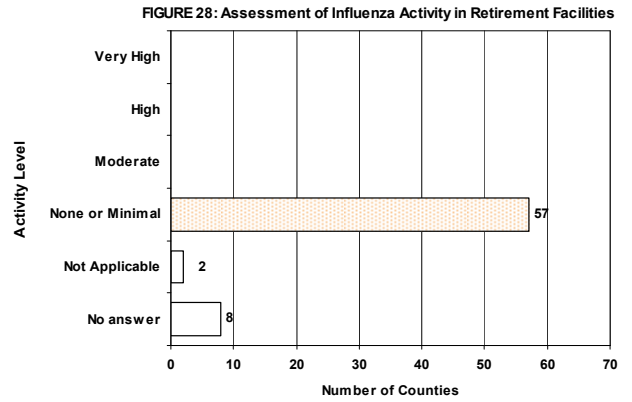
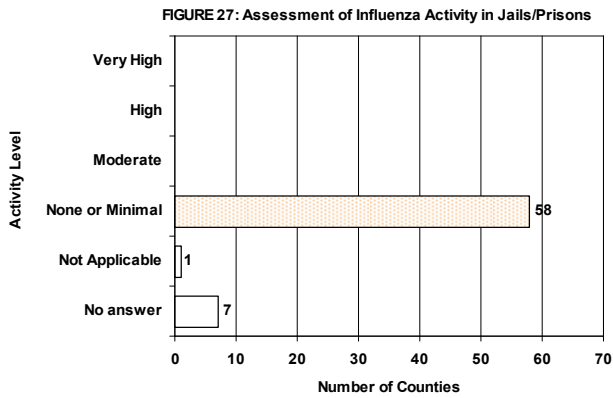


FIGURE 27 - FIGURE 32 show the activity levels in Various Facilities by county as reported by county health department flu coordinators for week 7 as of 12:00 p.m. February 24, 2010.



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 7 (ending February 20, 2010) there were:

- **146 deaths reported**
- **Upper bound of 95% confidence interval for prediction: 187 deaths**
- **NO excess deaths**

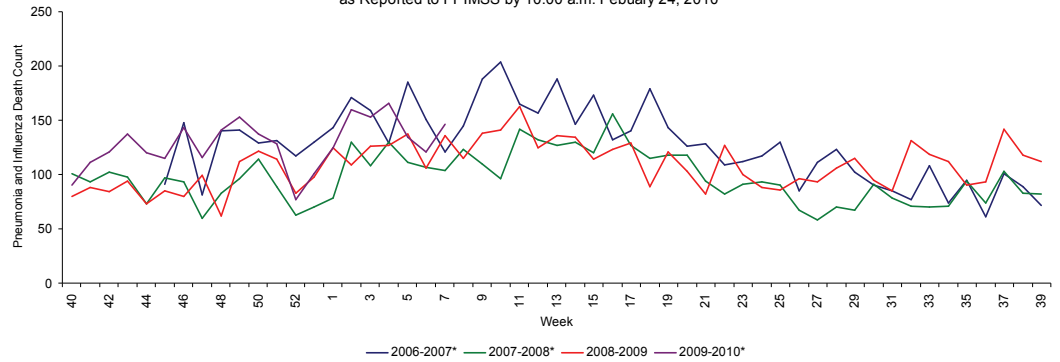
The majority of the deaths are in those aged 45 years and older.

All of the 24 participating counties reported their data for week 7.

FIGURE 34 shows Pneumonia and Influenza Deaths for 24 Florida Counties, week 1, 2008 - week 7, 2010 as reported to FPIMSS by 10:00 a.m. February 24, 2010

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 34: 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 40-7) as Reported to FPIMSS by 10:00 a.m. February 24, 2010



*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 35: Pneumonia and Influenza Deaths in 3 Age Groups for 24 Florida Counties, Week 1, 2008-Week 7, 2010 as Reported to FPIMSS by 10:00 a.m. February 24, 2010

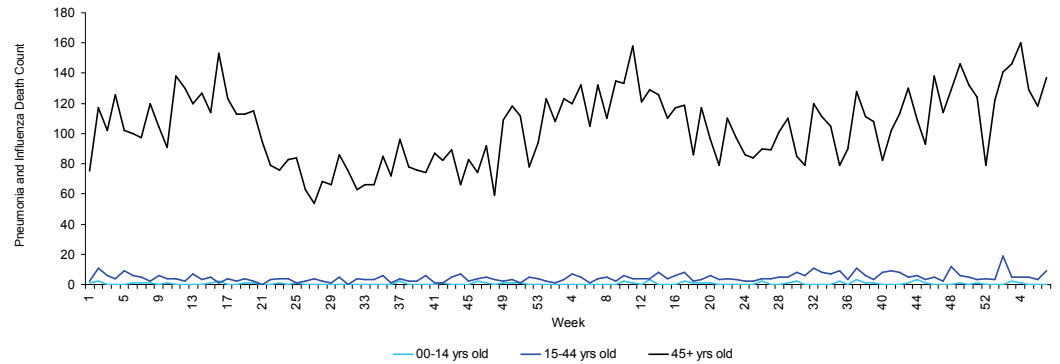


Figure 36: Pneumonia and Influenza Deaths for 24 Counties, Serfling Model January 24, 2009-February 24, 2010 as Reported to FPIMSS as of 10:00 a.m. February 24, 2010

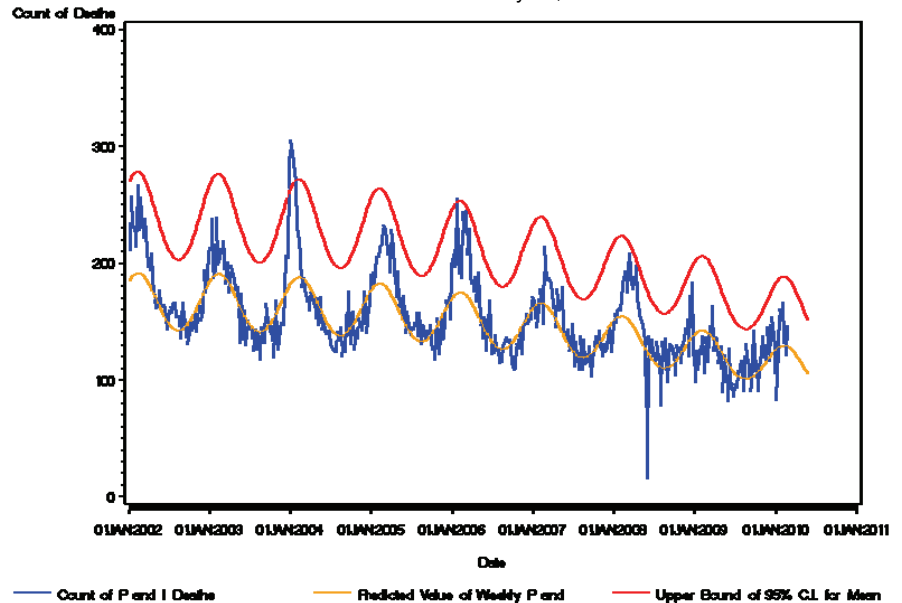


FIGURE 36 shows deaths in patients with novel H1N1*, hospitalizations due to H1N1**, and outbreaks of Influenza or ILI***, from week 17, when confirmed or probable cases of novel H1N1 in patients with life-threatening illness became reportable, to week 7, 2010

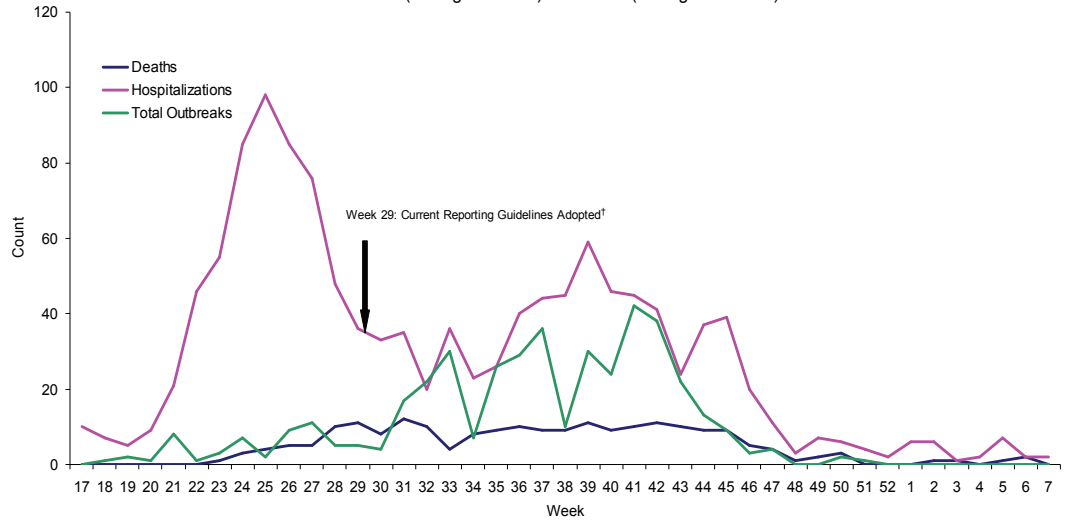
Deaths: Note that the exact contribution of H1N1 to the death is variable and may be unknown, as many of these deaths occur in people with complicated medical histories. Novel influenza A H1N1 infection would be coded as the underlying or primary cause on a death certificate for **some but not all** 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 37: Cumulative Deaths* and Hospitalizations** in Novel H1N1 Cases, and Outbreaks of Influenza or ILI*** for Week 17 (ending 5/2/2009) to Week 7 (ending 2/20/2010)



* 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.

† In week 29 Florida stopped making all cases of lab-confirmed H1N1 influenza reportable, and adopted the current guidelines for reporting hospitalizations and deaths.

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/diss/nndss/casedef/Influenza-Associated_current.htm

Influenza-Associated Pediatric Mortality

- **No** influenza-associated deaths among those <18 years of age were reported in week 7, for a total of 6 cases for the 2009-2010 season.
- **Seven** influenza-associated deaths among those <18 years of age were reported for the 2008-2009 influenza season (week 40, 2008 to week 39, 2009).

TABLE 5 - TABLE 7 The number of deaths reported each week since July 26, 2009 has ranged from 0 (weeks 52, 1, 2, 4, and 7) to 13 (week 38), with an average of 5.5 deaths reported per week. ^As of week 41, underlying 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 6: Recent Deaths in Novel H1N1 Influenza Cases by County, 12:00 Noon February 16 to 12:00 Noon February 23, 2010

| County | Number | Percent |
|--------------|----------|----------|
| Total | 0 | - |

TABLE 5: Cumulative deaths in Novel H1N1 Influenza Cases by County as of 12:00 Noon February 23, 2010

| County | Number | Percent |
|--------------|------------|--------------|
| Total | 209 | 100.0 |
| Alachua | 6 | 2.9 |
| Baker | 1 | 0.5 |
| Brevard | 5 | 2.4 |
| Broward | 12 | 5.7 |
| Calhoun | 1 | 0.5 |
| Charlotte | 2 | 1.0 |
| Citrus | 2 | 1.0 |
| Clay | 1 | 0.5 |
| Dade | 38 | 18.2 |
| Desoto | 1 | 0.5 |
| Duval | 13 | 6.2 |
| Escambia | 1 | 0.5 |
| Hardee | 1 | 0.5 |
| Hernando | 2 | 1.0 |
| Highlands | 2 | 1.0 |
| Hillsborough | 17 | 8.1 |
| Indian River | 1 | 0.5 |
| Lake | 1 | 0.5 |
| Lee | 5 | 2.4 |
| Levy | 2 | 1.0 |
| Manatee | 3 | 1.4 |
| Marion | 1 | 0.5 |
| Monroe | 2 | 1.0 |
| Nassau | 1 | 0.5 |
| Okaloosa | 2 | 1.0 |
| Okeechobee | 2 | 1.0 |
| Orange | 13 | 6.2 |
| Osceola | 1 | 0.5 |
| Palm Beach | 13 | 6.2 |
| Pasco | 3 | 1.4 |
| Pinellas | 13 | 6.2 |
| Polk | 9 | 4.3 |
| Putnam | 1 | 0.5 |
| Santa Rosa | 2 | 1.0 |
| Sarasota | 5 | 2.4 |
| Seminole | 4 | 1.9 |
| St. Johns | 2 | 1.0 |
| St. Lucie | 9 | 4.3 |
| Sumter | 1 | 0.5 |
| Taylor | 1 | 0.5 |
| Volusia | 6 | 2.9 |
| Walton | 1 | 0.5 |

TABLE 7: Cumulative deaths in Novel H1N1 Influenza Cases by Age as of 12:00 Noon February 23, 2010

| Age | Number | Percent | Deaths per million population | NO underlying condition^ |
|--------------|------------|------------|-------------------------------|--------------------------|
| Total | 209 | 100 | 10.9 | 36 (17.2) |
| 0-4 | 6 | 2.9 | 5.3 | 1 (16.7) |
| 5-24 | 22 | 10.5 | 4.6 | 8 (36.4) |
| 25-49 | 85 | 40.7 | 13.7 | 20 (23.5) |
| 50-64 | 75 | 35.9 | 20.4 | 7 (9.3) |
| 65+ | 21 | 10.0 | 6.3 | 0 (0.0) |

Figure 38: Cumulative Laboratory-Confirmed Death Rate in Novel H1N1 Cases and Cumulative Deaths in Novel H1N1 Cases by Age Group as of 12:00 p.m. February 23, 2010

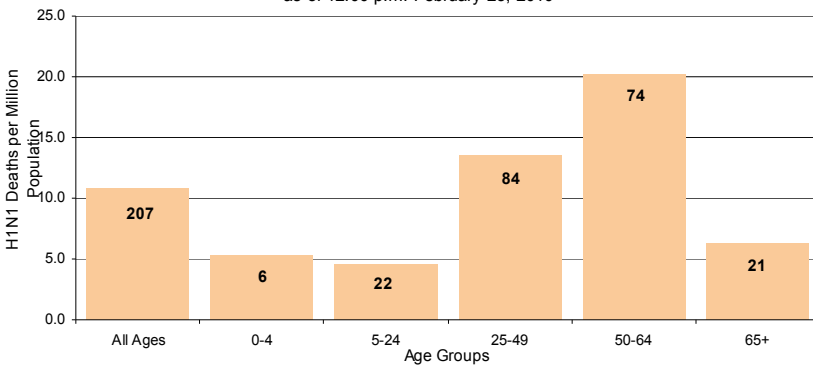


FIGURE 38 shows cumulative rates of H1N1 death by age group, per 1,000,000 population, and cumulative deaths in each age group.

TABLE 9 - TABLE 10 The number of hospitalizations reported weekly since July 26, 2009 has ranged from 3 (week 1) to 54 (week 40), with an average of 22.7 hospitalizations reported per week. ^As of week 41, underlying conditions include pregnancy unless otherwise noted.

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

TABLE 8: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by County as of 12:00 Noon February 23, 2010

| County | Number | Percent | ICU (percent of hospitalized) |
|--------------|-------------|--------------|-------------------------------|
| Total | 1251 | 100.0 | 513 (41.0) |
| Alachua | 15 | 1.2 | 12 (80.0) |
| Baker | 2 | 0.2 | 2 (100.0) |
| Bay | 3 | 0.2 | 0 (0.0) |
| Bradford | 1 | 0.1 | 0 (0.0) |
| Brevard | 15 | 1.2 | 9 (60.0) |
| Broward | 90 | 7.2 | 34 (37.8) |
| Calhoun | 2 | 0.2 | 0 (0.0) |
| Charlotte | 6 | 0.5 | 2 (33.3) |
| Citrus | 14 | 1.1 | 4 (28.6) |
| Clay | 4 | 0.3 | 1 (25.0) |
| Collier | 4 | 0.3 | 3 (75.0) |
| Columbia | 3 | 0.2 | 0 (0.0) |
| Dade | 472 | 37.7 | 141 (29.9) |
| Duval | 60 | 4.8 | 35 (58.3) |
| Escambia | 6 | 0.5 | 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 | 0.2 | 0 (0.0) |
| Hernando | 7 | 0.6 | 3 (42.9) |
| Highlands | 9 | 0.7 | 2 (22.2) |
| Hillsborough | 51 | 4.1 | 23 (45.1) |
| Indian River | 4 | 0.3 | 0 (0.0) |
| Jackson | 1 | 0.1 | 1 (100.0) |
| Lake | 7 | 0.6 | 2 (28.6) |
| Lee | 31 | 2.5 | 21 (67.7) |
| Levy | 4 | 0.3 | 0 (0.0) |
| Manatee | 15 | 1.2 | 6 (40.0) |
| Marion | 10 | 0.8 | 3 (30.0) |
| Martin | 7 | 0.6 | 4 (57.1) |
| Monroe | 6 | 0.5 | 0 (0.0) |
| Nassau | 6 | 0.5 | 6 (100.0) |
| Okaloosa | 8 | 0.6 | 7 (87.5) |
| Okeechobee | 4 | 0.3 | 0 (0.0) |
| Orange | 107 | 8.6 | 44 (41.1) |
| Osceola | 9 | 0.7 | 3 (33.3) |
| Palm Beach | 93 | 7.4 | 47 (50.5) |
| Pasco | 4 | 0.3 | 0 (0.0) |
| Pinellas | 32 | 2.6 | 22 (68.8) |
| Polk | 26 | 2.1 | 15 (57.7) |
| Putnam | 5 | 0.4 | 4 (80.0) |
| Santa Rosa | 6 | 0.5 | 2 (33.3) |
| Sarasota | 15 | 1.2 | 9 (60.0) |
| Seminole | 25 | 2.0 | 11 (44.0) |
| St. Johns | 7 | 0.6 | 2 (28.6) |
| St. Lucie | 13 | 1.0 | 8 (61.5) |
| Sumter | 1 | 0.1 | 1 (100.0) |
| Taylor | 2 | 0.2 | 1 (50.0) |
| Volusia | 28 | 2.2 | 21 (75.0) |
| Walton | 1 | 0.1 | 1 (100.0) |

TABLE 9: Recent Hospitalizations* in Novel H1N1 Influenza Cases by County, 12:00 Noon February 16 to 12:00 Noon February 23, 2010

| County | Number | Percent | ICU (percent of hospitalized) |
|--------------|----------|--------------|-------------------------------|
| Total | 6 | 100.0 | 2 (33.3) |
| Dade | 2 | 33.3 | 0 (0.0) |
| Hillsborough | 2 | 33.3 | 0 (0.0) |
| Orange | 1 | 16.7 | 1 (100.0) |
| Putnam | 1 | 16.7 | 1 (100.0) |

TABLE 10: Cumulative hospitalizations* in all Reported Novel H1N1 Influenza Cases by Age as of 12:00 Noon February 23, 2010

| Age group | Number | Percent | Hospitalizations per million population | NO underlying condition^ | ICU |
|--------------|-------------|--------------|---|--------------------------|-------------------|
| Total | 1251 | 100.0 | 65.4 | 186 (14.9) | 513 (41.0) |
| 0-4 | 164 | 13.1 | 145.0 | 40 (24.4) | 53 (32.3) |
| 5-24 | 340 | 27.2 | 70.9 | 38 (11.2) | 105 (30.9) |
| 25-49 | 422 | 33.7 | 68.1 | 74 (17.5) | 192 (45.5) |
| 50-64 | 252 | 20.1 | 68.7 | 29 (11.5) | 131 (52.0) |
| 65+ | 73 | 5.8 | 22.0 | 5 (6.8) | 32 (43.8) |

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 February 23, 2010

| Underlying medical condition status | Number | Percent | ICU | Death |
|-------------------------------------|------------|--------------|------------------|----------------|
| Total | 157 | 100.0 | 40 (25.5) | 7 (4.5) |
| No underlying medical condition | 82 | 52.2 | 23 (28.0) | 3 (3.7) |
| Underlying medical condition | 53 | 33.8 | 14 (26.4) | 4 (7.5) |
| Unknown | 22 | 14.0 | 3 (13.6) | 0 (0.0) |

Figure 39: Cumulative Laboratory-Confirmed Novel H1N1 Hospitalization Rate and Cumulative hospitalizations in Reported Novel H1N1 Cases by Age Group as of 12:00 p.m. February 23, 2010

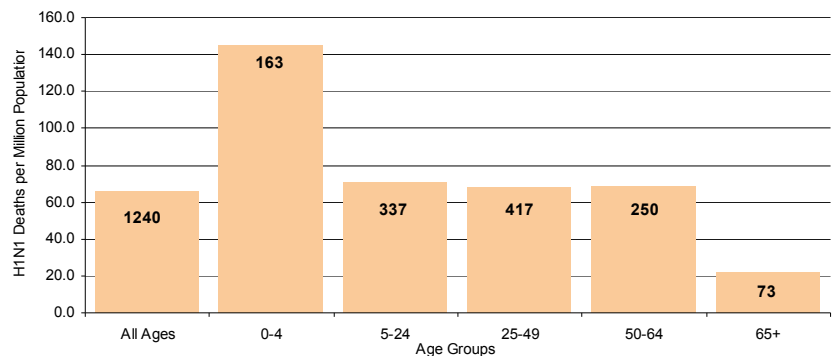


FIGURE 39 shows cumulative rates of H1N1 hospitalization by age group, per 1,000,000 population, and cumulative hospitalizations in each age group.

426 confirmed or suspect outbreaks of novel H1N1 influenza or ILI have been reported as of February 20, 2010

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%).

No confirmed or suspect outbreak of novel influenza A (H1N1) or ILI were reported during week 7 (ending February 20, 2010)

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, 49, and 52 through current week 7.

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 7 (Ending February 20, 2010)

| 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 | 64 | 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 7 (Ending February 20, 2010)

| 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 7 (Ending February 20, 2010)

| Setting | Number | Percent |
|--------------|----------|----------|
| Total | 0 | - |