

FLORIDA INFLUENZA SURVEILLANCE

Week 18: May 3rd 2009—May 9th 2009



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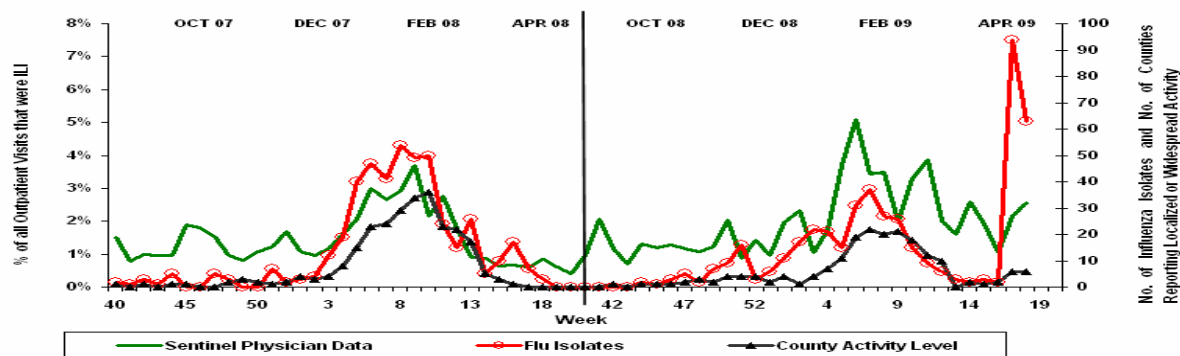
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I. SUMMARY

This is the thirty-second weekly Florida influenza surveillance report for the 2008-09 season. Influenza surveillance in Florida consists of seven surveillance components*: 1) Florida Sentinel Physician Influenza Surveillance Network (FSPISN); 2) Florida Pneumonia & Influenza Mortality Surveillance System; 3) State laboratory viral surveillance; 4) County influenza activity levels; 5) Notifiable Disease Reports: Influenza-associated deaths in children, post-influenza infection encephalitis and novel influenza cases; 6) Influenza or ILI outbreaks; 7) Syndromic surveillance.

During week 18 (05/03/09-05/09/09), the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 2.56 percent. This is below the state threshold for moderate activity of 2.98 percent. Sixty-three of the five hundred and forty-three ILI specimens tested by Bureau of Laboratories were positive for influenza. One county reported widespread activity and five counties reported localized activity. Thirty-three counties reported sporadic activity and 11 counties reported no activity. Seventeen counties did not report. The graph below shows the progression of the 2007-08 & 2008-09 Florida influenza seasons as monitored by three** of seven surveillance systems.

Each week an activity code for the state as a whole is reported to the Centers for Disease Control and Prevention (CDC). There are five possible categories: No Activity, Sporadic, Local, Regional, or Widespread. Regional activity has been reported in Florida for this reporting week (week 18). Florida meets the CDC regional activity definition. The CDC definition for regional activity is: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions. CDC report can be viewed at <http://www.cdc.gov/flu/weekly/usmap.htm>.



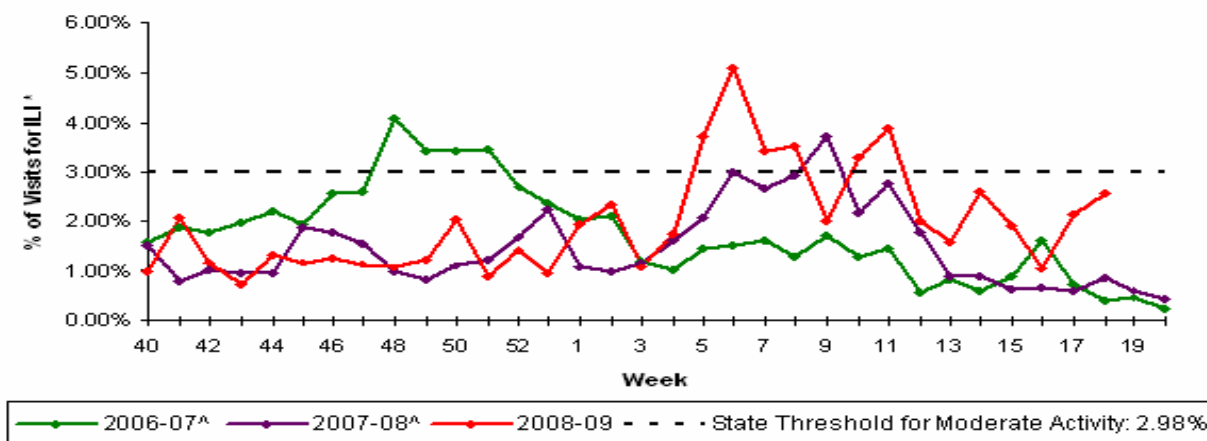
*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza in the state of Florida.

**1) FSPISN, 2) State Laboratory Viral Surveillance, and 3) County Activity Levels.

II. FSPISN INFLUENZA-LIKE ILLNESS STATEWIDE GRAPH

During week 18, 2.56%* of patient visits to Florida sentinel providers were due to ILI. This percentage is below the statewide threshold for moderate activity of 2.98%**. The percentage of visits ranged from 0.00% in the Southwest to 4.07% in the Southeast region.

Percentage of Visits for Influenza-like Illness Reported by Sentinel Providers Statewide Summary 2008-09, 2007-08, and 2006-07



*FSPISN reporting is incomplete for this week (51% of providers reported). Numbers may change as more reports are received. Data displayed is weighted to the state population.

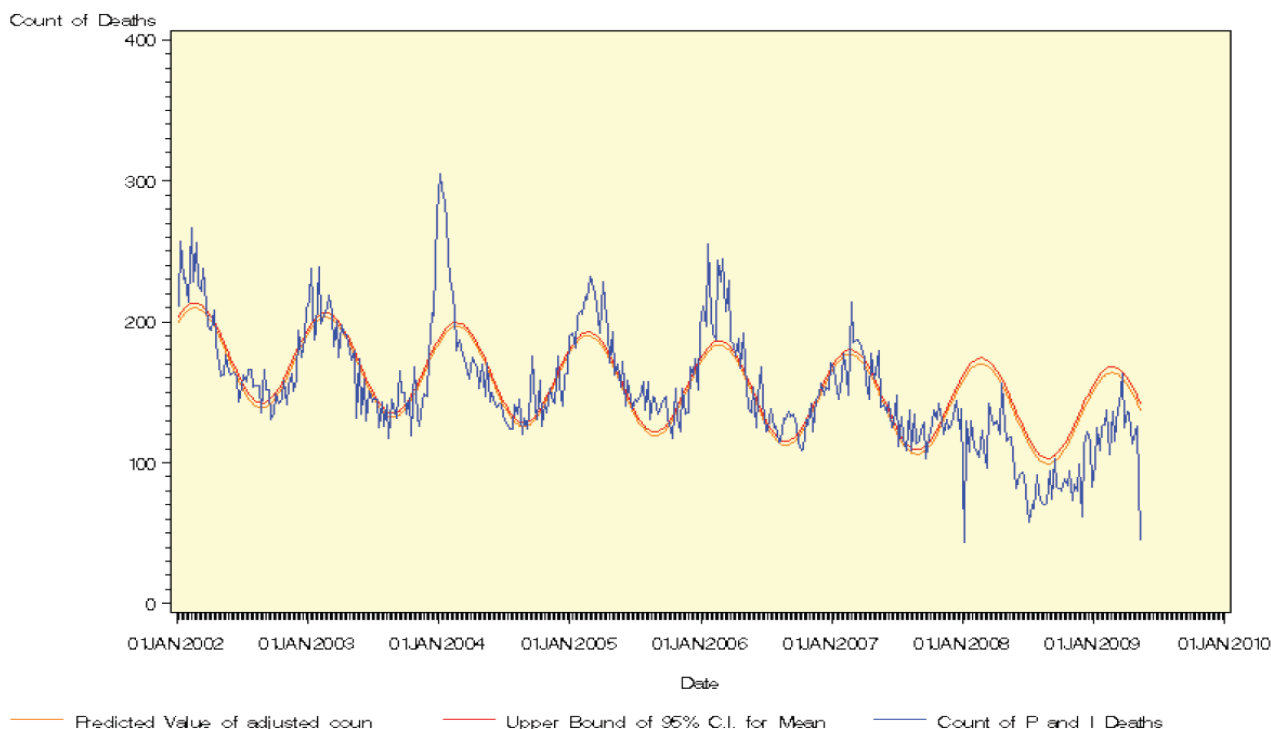
**The 2008—09 threshold for moderate activity is calculated from FSPISN data. The threshold for moderate activity is the mean percentage of patient visits for ILI during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with 10% or greater of laboratory specimens 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 was no week 53 during the 2006-07 and 2007-08 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

III. FLORIDA PNEUMONIA AND INFLUENZA MORTALITY SURVEILLANCE

During week 18, the total count of pneumonia and influenza (P&I) deaths reported was below the epidemic threshold. This indicates there were no deaths in excess of the expected count for week 18 and observed mortality does not indicate that Florida has surpassed the epidemic threshold for this week**.

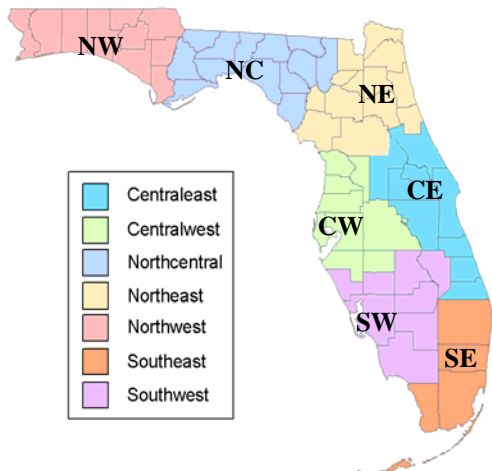
Pneumonia and Influenza Mortality for 24 Florida Counties, Counts Model



**Twenty-two of 24 counties reported P&I deaths to create this trend graph. Please note: Data from Duval and Volusia was not available. 100% participation is required for this graph to provide an accurate representation. We look forward to 100% participation for the duration of the influenza season.

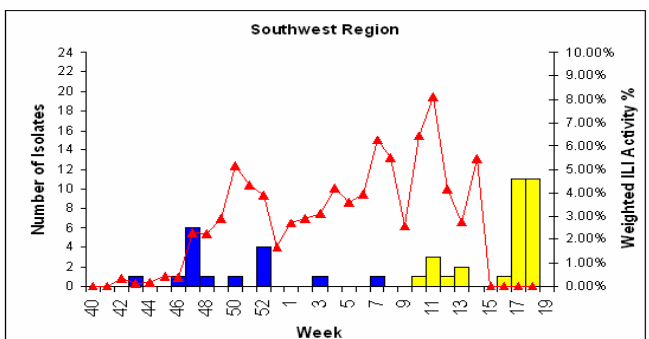
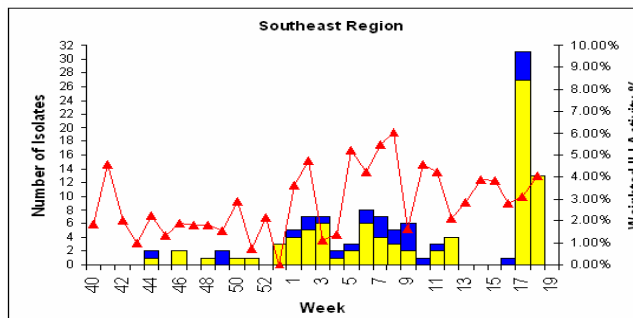
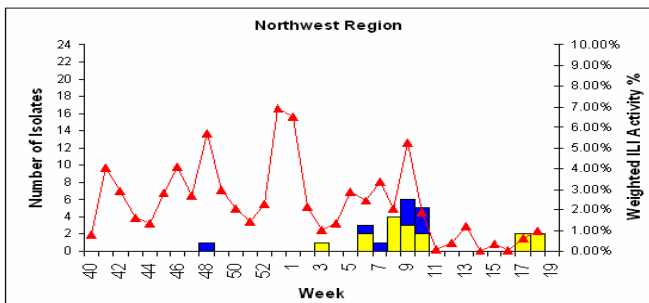
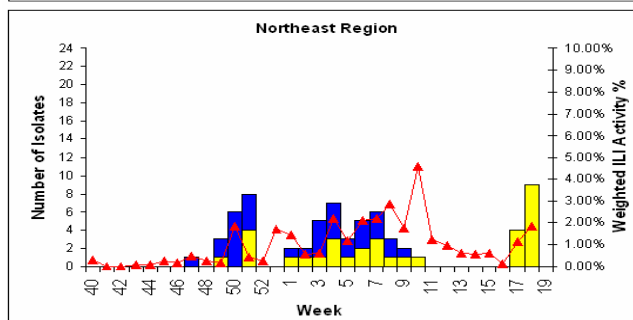
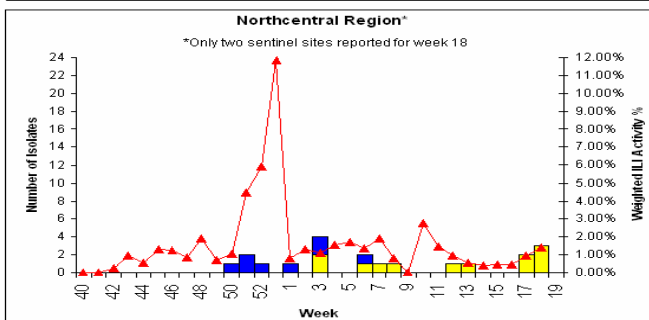
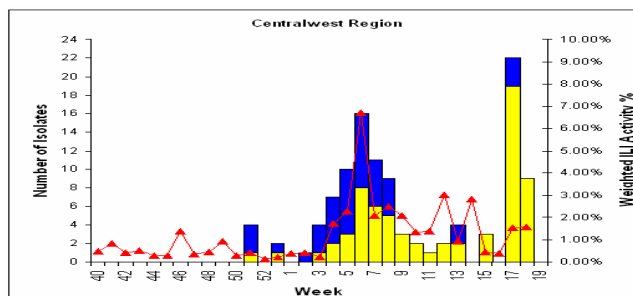
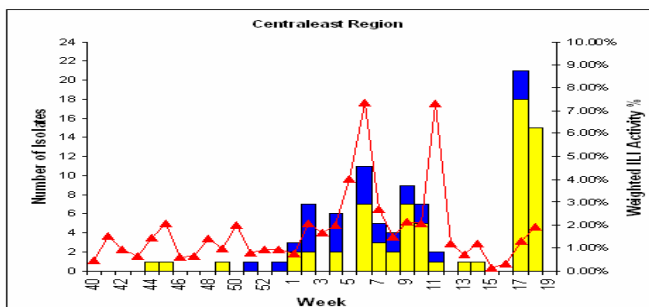
V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

Influenza Surveillance Regions



The table below shows the weighted ILI activity by region as reported by Florida sentinel physicians for the 2007-08 & 2008-09 seasons. The graphs below include ILI activity as reported by sentinel physicians and FDOH laboratory data.

Week 18: FSPISN Weighted ILI Activity, by Region 2007-08 & 2008-09 Seasons		
REGION	2008-09 ILI %	2007-08 ILI %
Centraleast	1.93%	5.75%
Centralwest	1.55%	0.37%
Northcentral	1.40%	0.81%
Northeast	1.85%	0.05%
Northwest	0.97%	0.00%
Southeast	4.07%	1.31%
Southwest	0.00%	0.00%



- Influenza A specimens FDOH Laboratories
- Influenza B specimens FDOH Laboratories
- % of visits for ILI, reported by sentinel providers

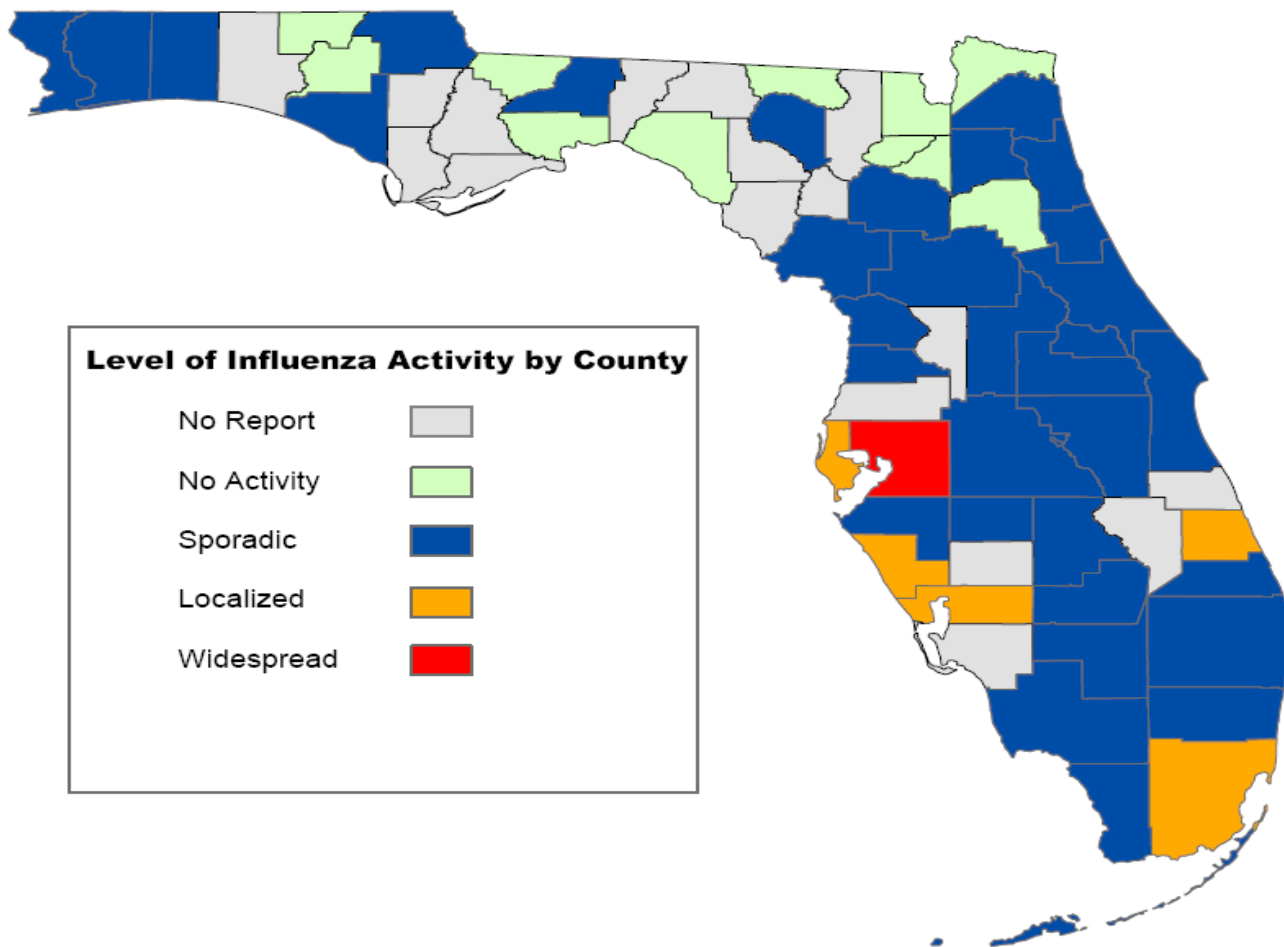
VI. COUNTY INFLUENZA ACTIVITY MAP

During week 18, one county (Hillsborough) reported widespread activity. Five counties reported localized activity (Alachua, Bay, Charlotte, Miami-Dade, Pinellas, St. Lucie, Sarasota). Thirty-three counties (Brevard, Broward, Citrus, Clay, Collier, Duval, Escambia, Flagler, Glades, Hardee, Hendry, Hernando, Highlands, Jackson, Lake, Leon, Levy, Manatee, Marion, Martin, Monroe, Okaloosa, Orange, Osceola, Palm Beach, Polk, St. Johns, Santa Rosa, Seminole, Suwannee, Volusia) reported sporadic activity. Thirteen counties reported no activity. Nineteen counties did not report. *Please note: data reported from counties reporting after the deadline are recorded but may not be included in the activity map below.*

Weekly County Influenza Activity

(Week ending May 9, 2009 - Week 18)

County influenza activity levels are reported by county health department epidemiologists



Florida Department of Health
Bureau of Epidemiology

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 Map printed May 14, 2009 at 3:15 pm ET.

COUNTY INFLUENZA ACTIVITY LEVEL DEFINITIONS

0 = No Activity:

Overall clinical activity remains low with no laboratory confirmed cases[†] in the county.

1 = Sporadic:

- And/or {
- Isolated cases of laboratory confirmed influenza[†] in the county.
 - An ILI[§] outbreak in a single setting[‡] in the county. (No detection of decreased ILI[§] activity by surveillance systems*)

2 = Localized:

- And/or {
- ILI[§] activity detected by a *single* surveillance system* within the county. (ILI[§] activity has not been detected by *multiple* ILI surveillance systems.)
 - Two or more outbreaks (ILI[§] or lab confirmed[†]) detected in a *single* setting[‡] in the county.

AND

- Recent (within past three weeks) laboratory evidence[†] of influenza activity in the county.

3 = Widespread:

- And/or {
- An increase in ILI[§] activity detected in ≥ 2 surveillance systems in the county.
 - Two or more outbreaks ((ILI[§] or laboratory confirmed[†]) detected in *multiple* settings[‡] in the county.

No Report: (No report was received from the county at the time of publication)

[†] Laboratory confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.

[§]ILI = Influenza-like illness, fever $\geq 100^{\circ}\text{F}$ AND sore throat and/or cough *in the absence* of another known cause.

*ILI surveillance system activity can be assessed using a variety of surveillance systems including sentinel providers, school/workplace absenteeism, long-term care facility (LTCF) surveillance, correctional institution surveillance, hospital emergency department surveillance and laboratory surveillance.

[‡]Settings include institutional settings (LTCFs, hospitals, prisons, schools, companies) & the community.

VII. REPORTS OF INFLUENZA OR INFLUENZA-LIKE ILLNESS (ILI) OUTBREAKS

During week 18 there were no seasonal influenza outbreaks reported.

During week 17 the Hillsborough County Health Department reported an investigation of an ILI outbreak at a local residential facility among both ill residents and staff. Influenza A was detected in two out of three residents that were hospitalized while the other resident was positive for influenza A or B by rapid influenza test. All three specimens were forwarded to the state lab for confirmatory testing. Two isolates were typed as seasonal influenza A H1N1 and the other result is pending.

County Health Department epidemiologists should report Influenza and ILI outbreaks via EpiCom at: <https://fdens.com/vabtrs/GateStart.aspx> within the Influenza Forum.

Total influenza or ILI outbreaks reported as of week 18 (05/09/09): 8

VIII. NOTIFIABLE DISEASE REPORTS: INFLUENZA-ASSOCIATED DEATHS AMONG CHILDREN (<18 YEARS) & POST-INFLUENZA INFECTION ENCEPHALITIS

As of the week ending May 9, 2009, there were no influenza-associated deaths among those <18 years of age and/ or post influenza infection encephalitis reported in the state of Florida.

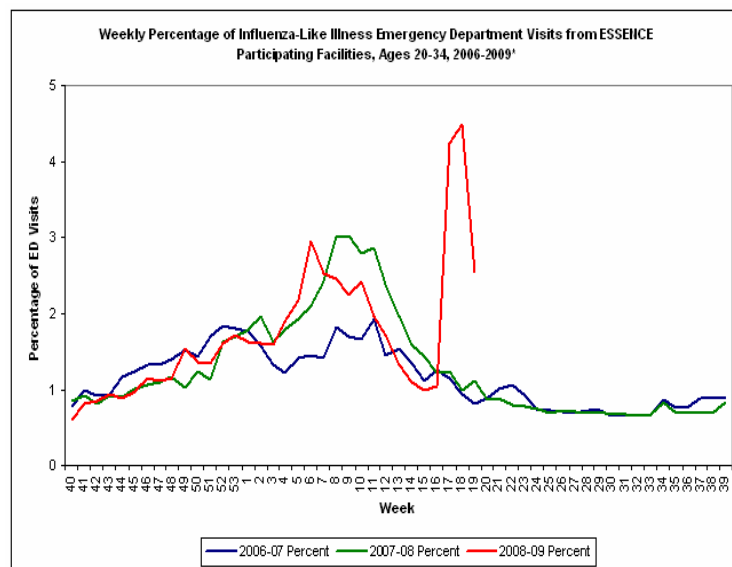
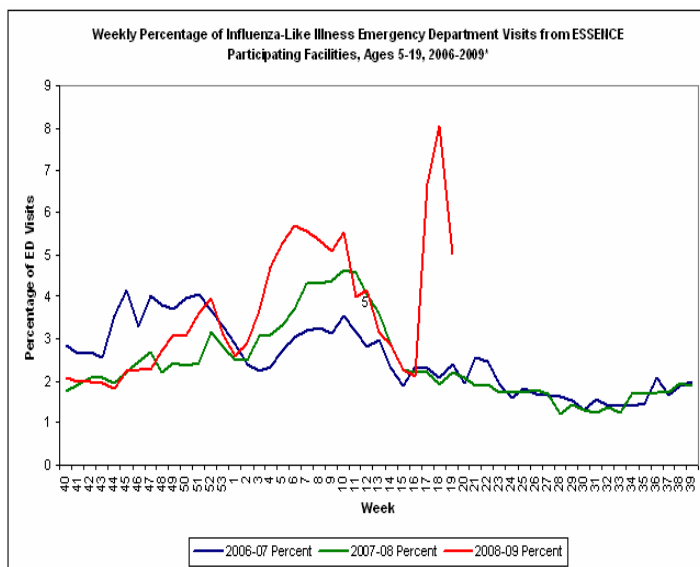
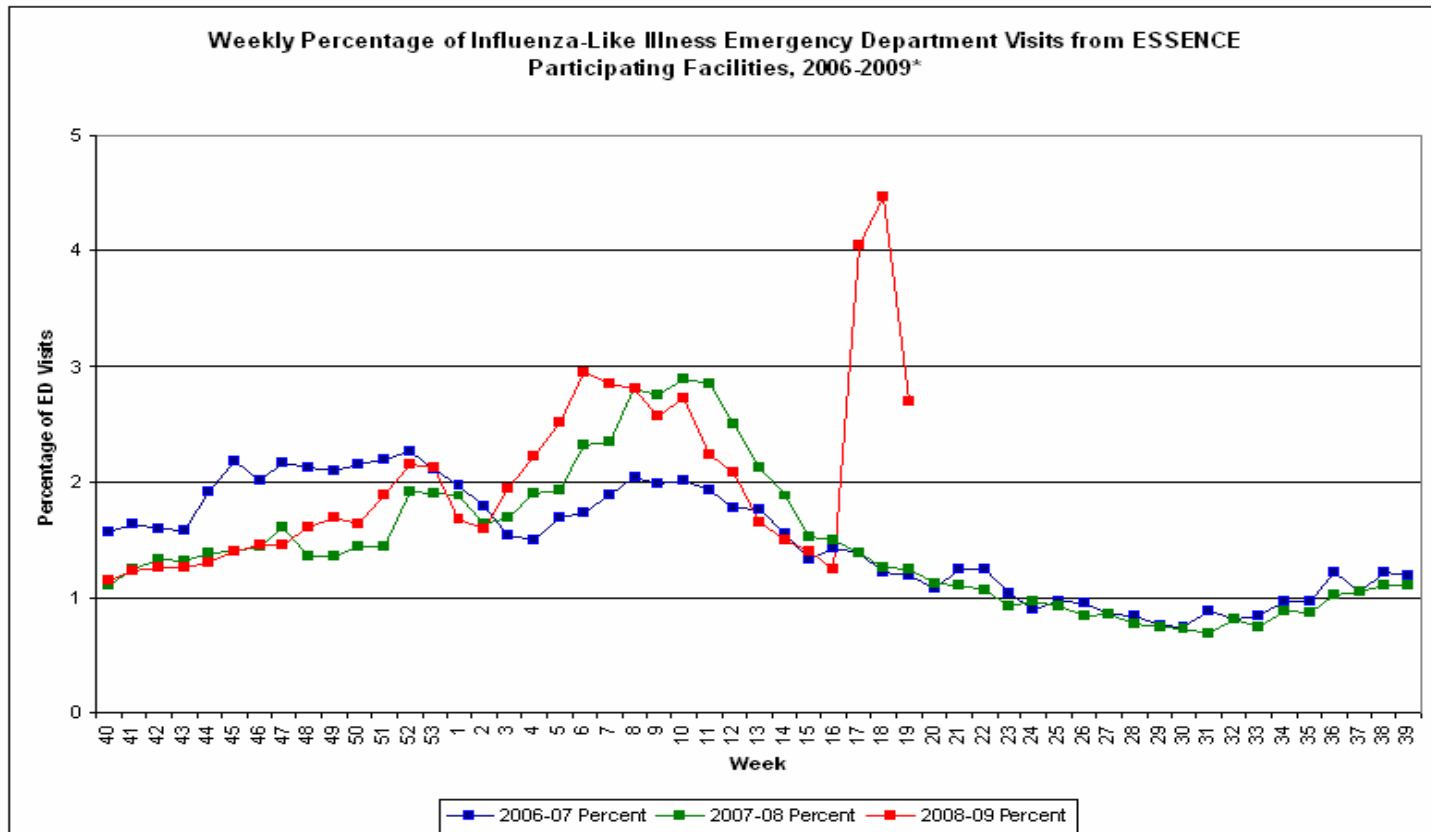
Reportable Disease	# of Cases 08-09 Influenza Season
Influenza-associated deaths among those <18 years of age	3*
Post-influenza infection encephalitis	0

*Case reported during week 6 was reclassified as a suspect case. Please note that status of reported cases are subject to change upon receipt of additional information.

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.

IX. SYNDROMIC SURVEILLANCE SUMMARY

Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data from 107* hospitals. 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. The data are collected on a daily basis from participating hospital emergency departments (ED) across the state. Displayed below are the percentage of ILI visits to local EDs from 2006 to 2009 by week.



*The total number of facilities participating in ESSENCE has increased steadily from 2006 to 2009. In 2007 ESSENCE was implemented as the state syndromic surveillance system. Please note that numbers may change as facility data is updated.

X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

Accessed on: 05/14/09

Avian Influenza A (H5N1)

Since the outbreak activity of avian influenza A (H5N1) began at the end of December 2003, there have been a total of 423 confirmed human cases and 258 deaths. Cases and deaths have occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Bangladesh 1 case 0 deaths; Cambodia 8 cases and 7 deaths; China 38 cases and 25 deaths; Djibouti 1 case 0 deaths; Egypt 68 cases and 23 deaths; Indonesia 141 cases and 115 deaths; Iraq 3 cases and 2 deaths; Lao People's Democratic Republic 2 cases and 2 deaths; Myanmar 1 case and 0 deaths; Nigeria 1 case and 1 death; Pakistan 3 cases and 1 death; Thailand 25 cases and 17 deaths; Turkey 12 cases and 4 deaths; and, Vietnam 111 cases and 56 deaths. For a complete analysis and summary of WHO confirmed human cases of H5N1 from 12/1/2003 to current, please visit: http://www.who.int/csr/disease/avian_influenza/ai_timeline/en/index.html

Changes in the WHO case definition for human infection with avian influenza H5N1 can be found here: http://www.who.int/csr/disease/avian_influenza/guidelines/case_definition2006_08_29/en/index.html

During week 18, the Ministry of Health of Egypt reported a new confirmed human case of avian influenza . The case is a 34 year old female from Tanta District, Gharbia Governorate. Her symptoms began on April 21st, 2009 and she was hospitalized at Tanta Fever Hospital on the same day where she was started on oseltamivir. She is currently in stable condition. Investigations into the source of her infection indicate a history of close contact with dead and sick poultry prior to becoming ill. In addition, during week 18, the Viet Nam Ministry of Health reported a new confirmed case of human infection with the H5N1 avian influenza virus. The case is a 23 year old woman from Quan Hoa District, Thanh Hoa Province. She developed symptoms on April 16th, 2009 was hospitalized on April 21st, and died on April 22nd. Contact with sick and/or dead poultry was noted prior to illness.

During week 17, no new cases of Influenza A H5N1 were reported.

During week 16, no new cases of Influenza A H5N1 were reported.

More information about these cases can be found at http://www.who.int/csr/disease/avian_influenza/updates/en/index.html

Influenza A (H1N1) - (Swine Origin) -Accessed 05/14/09

This report summarizes influenza activity for week ending 05/9/09.

Worldwide, total of 7,443 confirmed human cases and 65 confirmed deaths due to influenza A (H1N1) have been reported, since the virus was first recognized in April 2009. Laboratory confirmed cases and deaths have occurred in the following nations: Argentina 1 case, 0 deaths; Australia 1 case, 0 deaths; Austria 1 case, 0 deaths; Brazil 8 cases, 0 deaths; Canada 389 cases, 1 death; China 4 cases, 0 deaths; Columbia 7 cases, 0 deaths; Costa Rica 8 cases, 1 death; Cuba 1 death, 0 cases; Denmark 1 case, 0 deaths; El Salvador 4 cases, 0 deaths; Finland 2 cases, 0 deaths; France 14 cases, 0 deaths; Germany 12 cases, 0 deaths; Guatemala 3 cases, 0 deaths; Ireland 1 case, 0 deaths; Israel 7 cases, 0 deaths; Italy 9 cases, 0 deaths; Japan 4 cases, 0 deaths; Mexico 2,446 cases, 60 deaths; Netherlands 3 case, 0 deaths; New Zealand 7 cases, 0 deaths; Norway 2 cases, 0 deaths; Panama 29 cases, 0 deaths; Poland 1 case, 0 deaths; Portugal 1 case, 0 deaths; Republic of Korea 3 cases, 0 deaths; Spain 100 cases, 0 deaths; Sweden 2 cases, 0 deaths; Switzerland 1 case, 0 deaths; Thailand 2 cases, 0 deaths; United States 4,298 cases, 3 deaths; United Kingdom 71 cases, 0 deaths.

For a summary of the most up to date H1N1 information please visit: <http://www.who.int/csr/disease/swineflu/en/index.html>

X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

Accessed on: 05/14/09

In the United States, a total of 47 states (including the District of Columbia) have reported confirmed cases of Influenza A (H1N1) swine origin. There have been a total of 4,298 cases and three deaths reported as of May 14, 2009.

For the latest information about this rapidly evolving situation please visit: <http://www.cdc.gov/h1n1flu/>

In Florida, laboratory confirmed cases of Influenza A (H1N1) - Swine Origin are as follows:

Confirmed swine influenza H1N1 cases by county (n=121), Florida, as of May 19, 2009

	Frequency	Percent
ALACHUA	1	0.83
BRADFORD	1	0.83
BREVARD	4	3.31
BROWARD	20	16.53
CLAY	1	0.83
COLLIER	2	1.65
DADE	25	20.66
DESOTO	1	0.83
DUVAL	2	1.65
FLAGLER	1	0.83
HILLSBOROUGH	13	10.74
INDIAN RIVER	1	0.83
LAKE	1	0.83
LEE	18	14.88
MANATEE	2	1.65
MARION	2	1.65
OKEECHOBEE	1	0.83
ORANGE	4	3.31
OSCEOLA	1	0.83
PALM BEACH	6	4.96
PINELLAS	4	3.31
POLK	1	0.83
SARASOTA	4	3.31
SEMINOLE	1	0.83
ST. JOHNS	3	2.48
SUMTER	1	0.83

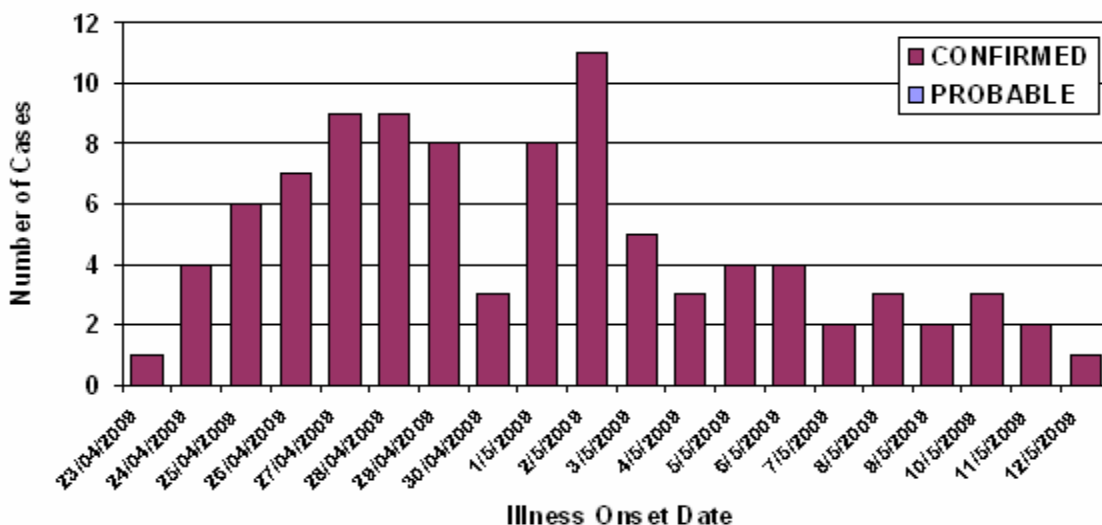
X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

Probable swine influenza H1N1 cases by county (n=1), Florida, as of May 19, 2009

	Frequency	Percent
SANTA ROSA	1	100.00

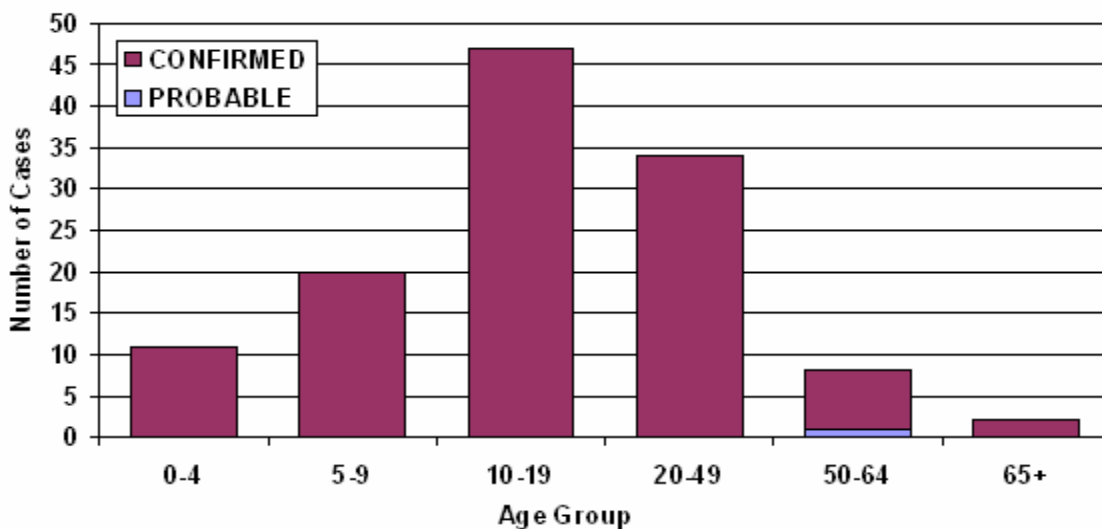
Note: Flagler County case diagnosed in AZ while in the process of relocating was determined to be a FL resident and is included in the case count. Four cases (2 Dade, 2 Okaloosa) previously reported as probable were found to be negative and were removed from the case count. Subsequently, one of the Dade County cases was determined to be positive and was added back into the case count.

Confirmed and probable cases by date of onset*, Florida, as of May 19, 2009



*Note that 1 probable case and 26 confirmed cases are missing dates of onset.

Confirmed and probable cases by age, Florida, as of May 19, 2009



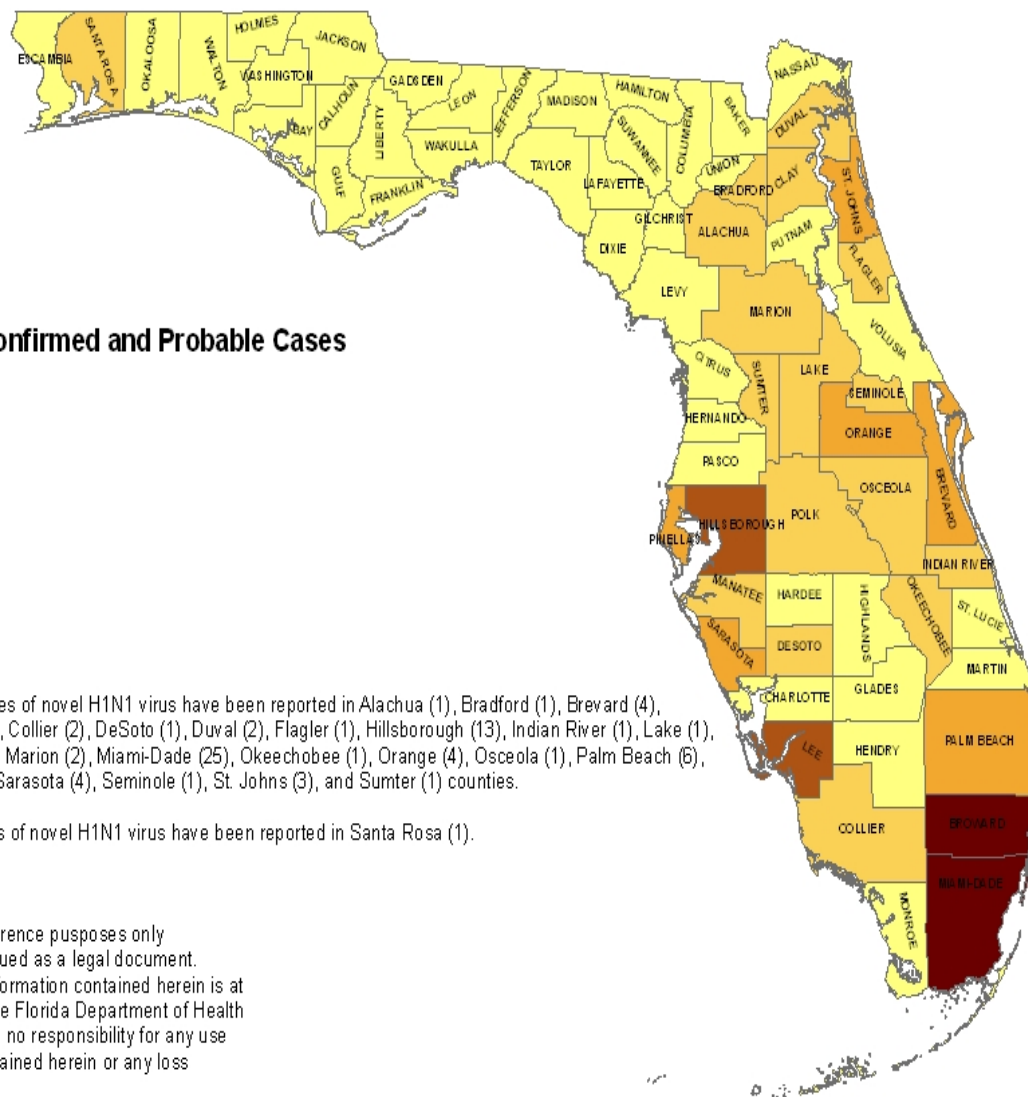
X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

Confirmed and probable cases by date of gender and age, Florida, as of May 19, 2009

	Confirmed (n=121)		Probable (n=1)		Total (n=122)		
	#	%	#	%	#	%	Rate (per 100,000)
Gender							
Female	58	47.93	1	100.00	59	48.36	0.61
Male	63	52.07	0	0.00	63	51.64	0.67
Total	121		1		122		0.64
Age (range=1-75, average=19.5, median=15.5)							
0-4	11	9.09	0	0.00	11	9.02	0.97
5-9	20	16.53	0	0.00	20	16.39	1.72
10-19	47	38.84	0	0.00	47	38.52	1.96
20-49	34	28.10	0	0.00	34	27.87	0.46
50-64	7	5.79	1	100.00	8	6.56	0.22
65+	2	1.65	0	0.00	2	1.64	0.06
Total	121		1		122		0.64

X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

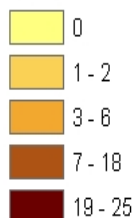
Florida Human Cases of Swine Flu Infection, May 19th, 2009



Legend

Number of Confirmed and Probable Cases

Total



Confirmed human cases of novel H1N1 virus have been reported in Alachua (1), Bradford (1), Brevard (4), Broward (20), Clay (1), Collier (2), DeSoto (1), Duval (2), Flagler (1), Hillsborough (13), Indian River (1), Lake (1), Lee (18), Manatee (2), Marion (2), Miami-Dade (25), Okeechobee (1), Orange (4), Osceola (1), Palm Beach (6), Pinellas (4), Polk (1), Sarasota (4), Seminole (1), St. Johns (3), and Sumter (1) counties.

Probable human cases of novel H1N1 virus have been reported in Santa Rosa (1).

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Map created 5/19/09 1:00pm

Human cases of influenza due to infection from novel or pandemic strains are reportable in Florida. Reports should be made to the Department of Health 24/7 upon initial suspicion. Reporting guidelines for hospitals and clinicians can be found at http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/index.html