

# FLORIDA INFLUENZA SURVEILLANCE

Week 29: July 19th 2009- July 25th 2009



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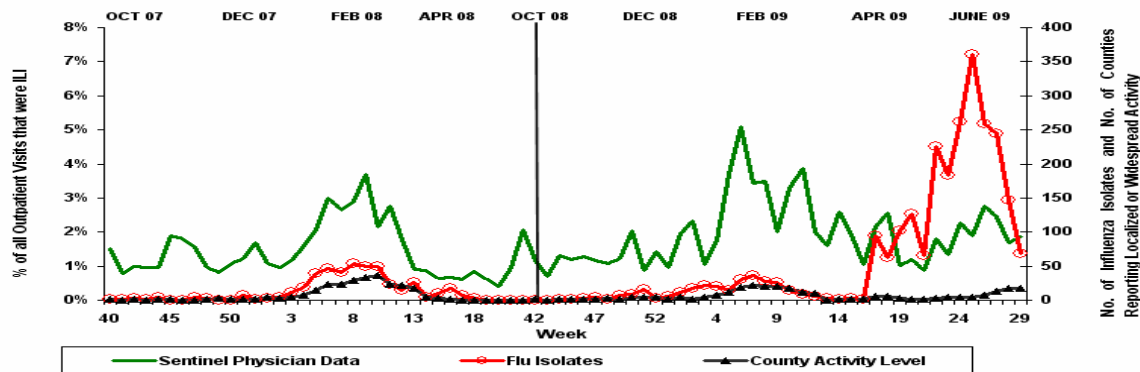
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## I. SUMMARY

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) Bureau of Laboratories 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 29 (07/19/09-07/25/09), the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 1.85 percent. This is below the state threshold for moderate activity of 2.98 percent. Sixty-nine (72%) of 96 ILI specimens tested by Bureau of Laboratories were positive for influenza. Two counties reported widespread activity and 15 counties reported localized activity. Twenty-three counties reported sporadic activity and 7 counties reported no activity. Twenty 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 29). Florida meets the CDC regional activity definition which 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. The CDC report can be viewed at <http://www.cdc.gov/flu/weekly/usmap.htm>.

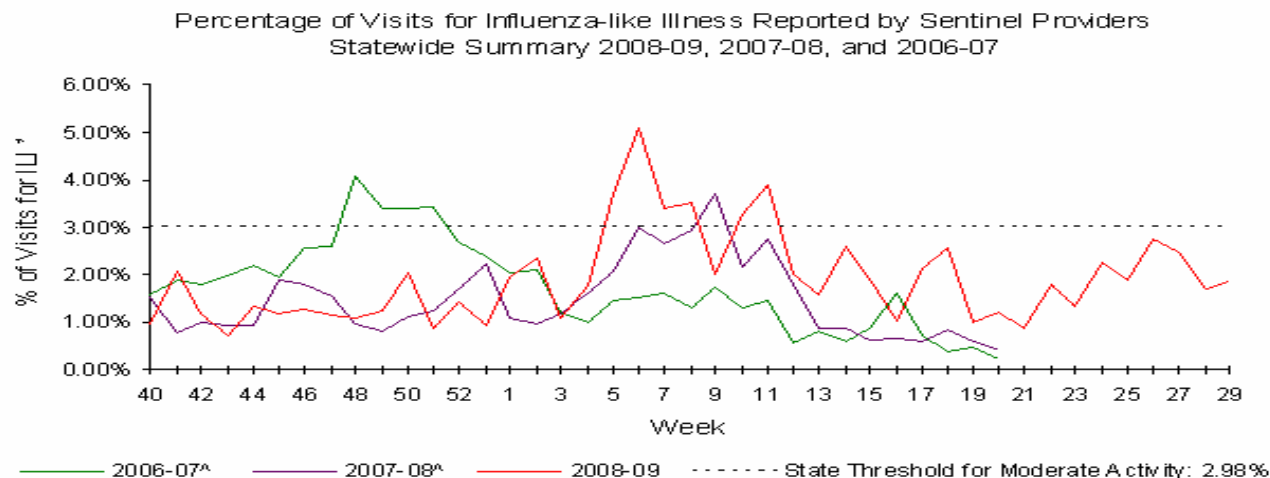


\*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza 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 29, 1.85%\* 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 5.85% in the Northcentral region. \*FSPISN reporting is incomplete for this week (50% of providers reported). Numbers may change as more reports are received. Data displayed is weighted to the state population.



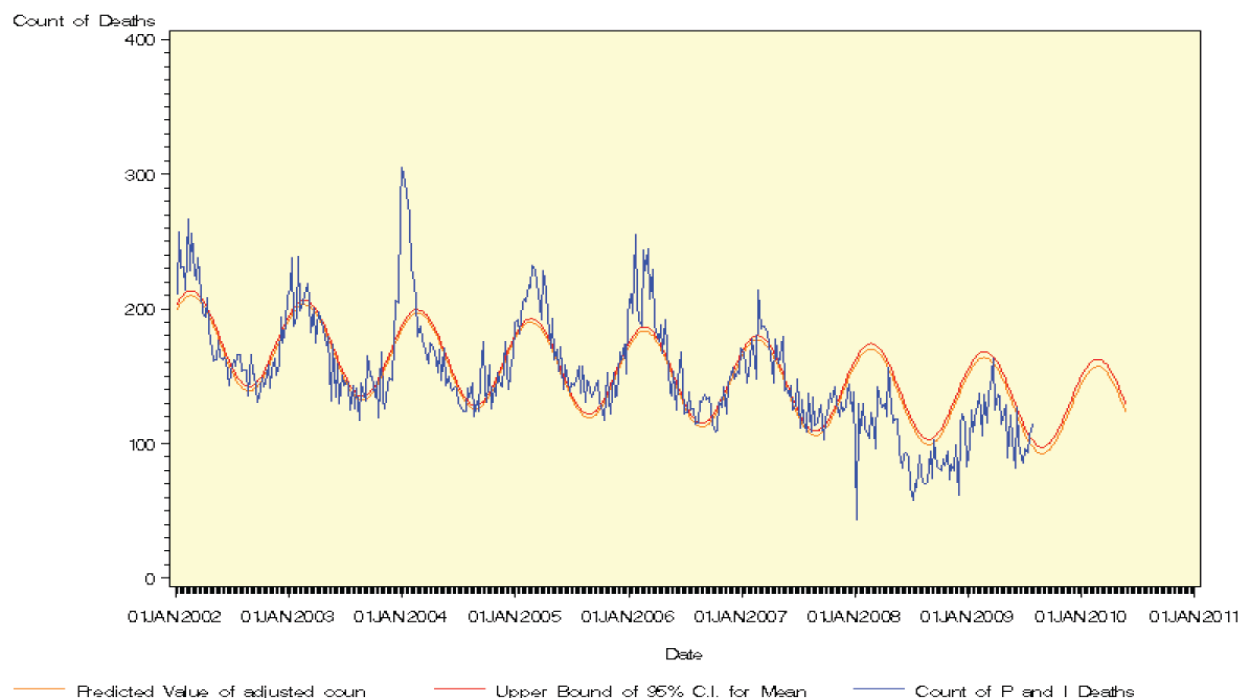
\*\*The 2008—09 threshold for moderate activity is calculated from FSPISN data. The threshold for moderate activity is the mean percentage of patient visits for ILI during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with 10% or greater of laboratory specimens 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.

<sup>^</sup> 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 29, the total count of pneumonia and influenza (P&I) deaths reported was above the epidemic threshold. The expected number of deaths for week 29 was 102, and there were 114 observed deaths. This indicates that there were 12 excess deaths\*\*.

### Pneumonia and Influenza Mortality for 24 Florida Counties, Counts Model

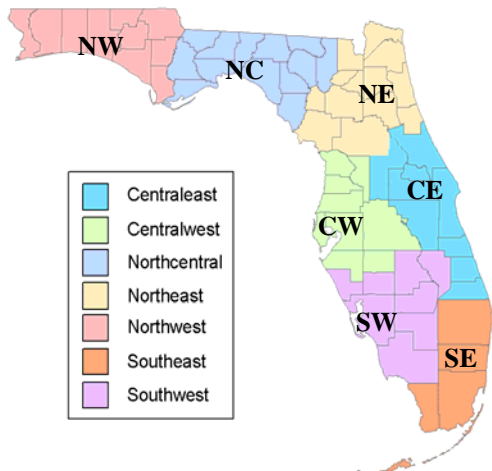


\*\*Twenty-three of 24 counties reported P&I deaths to create this trend graph. Please note: Data from Sumter was not available. 100% participation is required for this graph to provide an accurate representation.



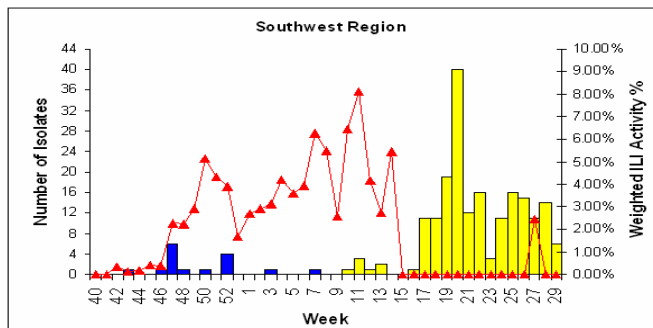
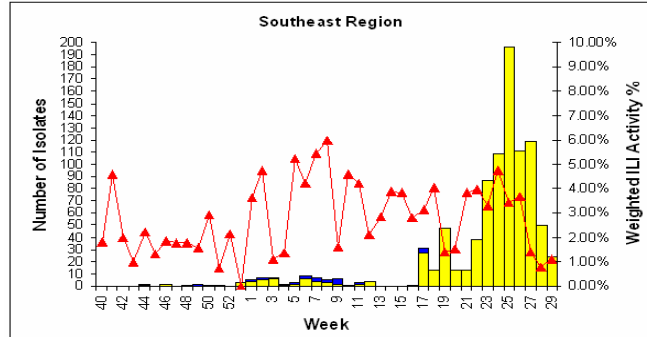
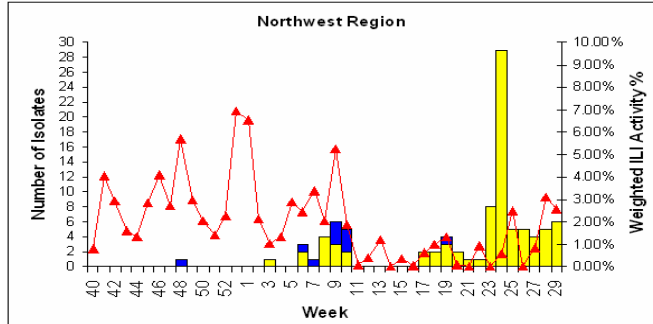
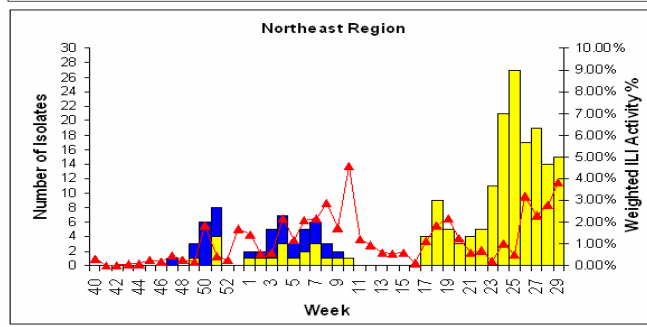
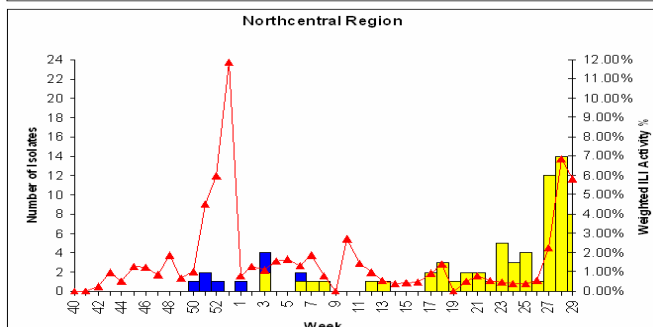
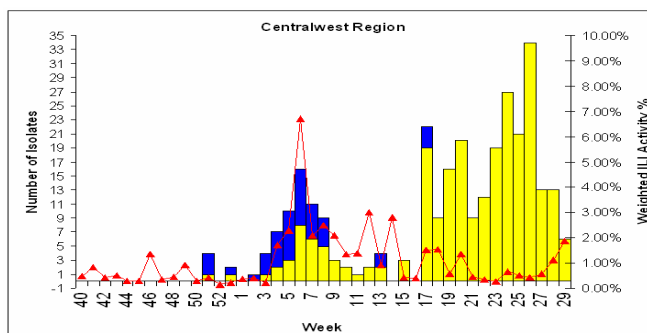
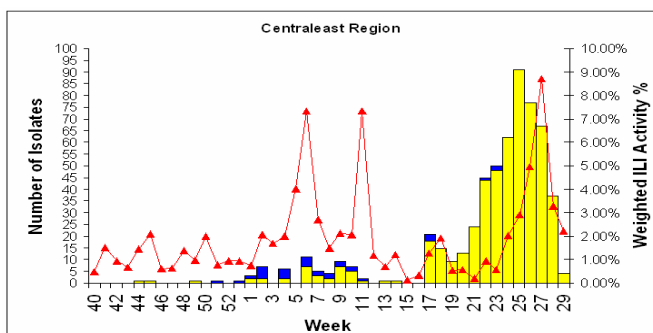
# V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

## Influenza Surveillance Regions



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

Week 29: FSPISN Weighted ILI Activity, by Region 2008-09 Season		
REGION	# and % of sentinel sites reporting	2008-09 ILI %
Centraleast	90% (28/31)	2.23%
Centralwest	46% (16/35)	1.87%
Northcentral	100% (2/2)	5.85%
Northeast	32% (7/22)	3.84%
Northwest	7% (2/14)	2.56%
Southeast	50% (8/16)	1.13%
Southwest	31% (4/13)	0.00%



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

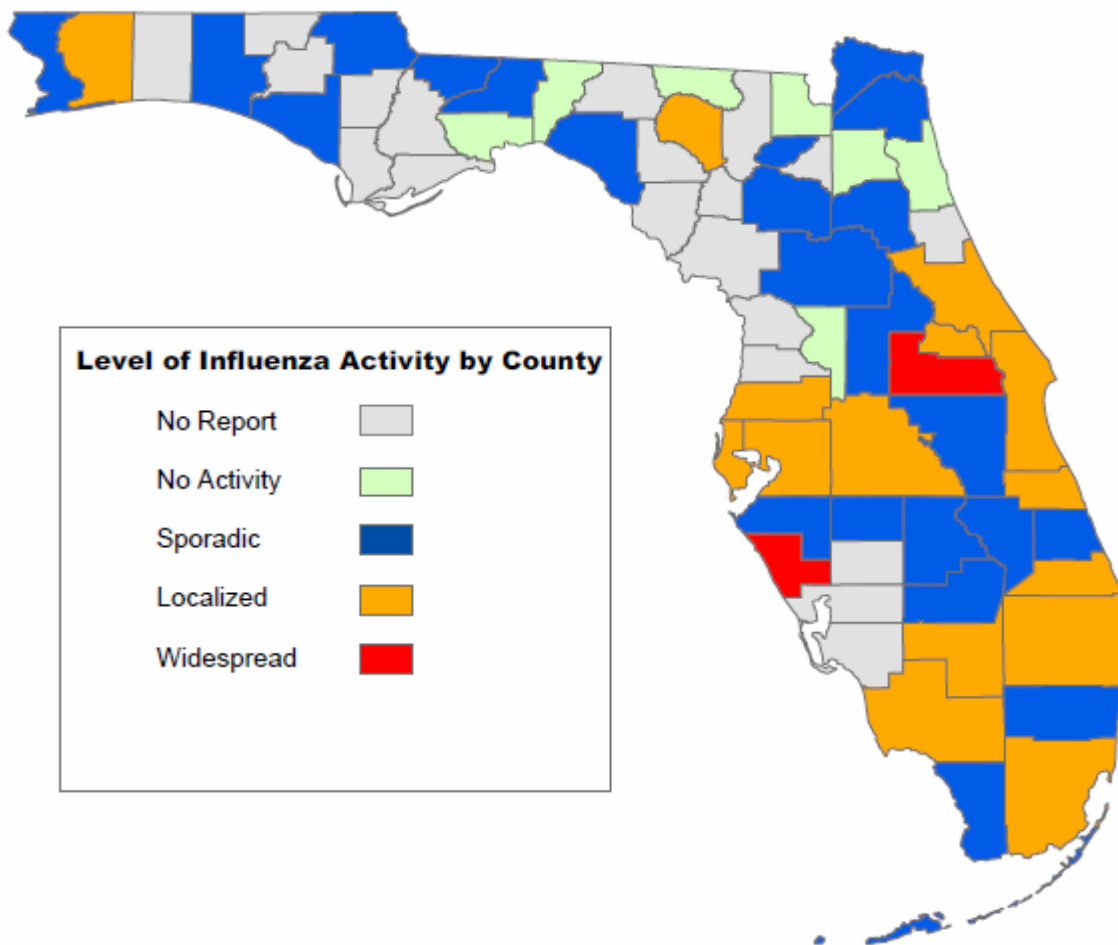
## VI. COUNTY INFLUENZA ACTIVITY MAP

During week 29, two counties (Orange, Sarasota) reported widespread activity. Fifteen counties reported localized activity (Brevard, Collier, Miami-Dade, Hendry, Hillsborough, Indian River, Martin, Palm Beach, Pasco, Pinellas, Polk, Santa Rosa, Seminole, Suwanee, Volusia). Twenty-three counties reported sporadic activity and seven counties reported no activity. Twenty 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 July 25, 2009 - Week 29)

County influenza activity levels are reported by county health department epidemiologists



**Florida Department of Health**  
Bureau of Epidemiology

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Map printed July 30, 2009 at 4:30 pm ET.

## COUNTY INFLUENZA ACTIVITY LEVEL DEFINITIONS

### 0 = No Activity:

Overall clinical activity remains low with no laboratory confirmed cases<sup>†</sup> in the county.

### 1 = Sporadic:

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

### 2 = Localized:

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

### AND

- Recent (within past three weeks) laboratory evidence<sup>†</sup> of influenza activity in the county.

### 3 = Widespread:

- And/or {
- An increase in ILI<sup>§</sup> activity detected in  $\geq 2$  surveillance systems in the county.
  - Two or more outbreaks ((ILI<sup>§</sup> or laboratory confirmed<sup>†</sup>) detected in *multiple* settings<sup>‡</sup> in the county.

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

<sup>†</sup> Laboratory confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.

<sup>§</sup>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.

<sup>‡</sup>Settings include institutional settings (LTCFs, hospitals, prisons, schools, companies) & the community.

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

During week 29, there were over four new outbreaks and/or clusters of influenza A H1N1(swine origin) reported in summer camps and other facilities throughout the state. Please see Epi Com for the latest information.

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 and/or clusters reported as of week 29 (07/25/09): 40**

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

As of the week ending July 25, 2009, there were no new influenza-associated deaths among those <18 years of age and/ or post influenza infection encephalitis reported in the state of Florida.

One death that occurred during week 23 was due to novel influenza A H1N1.

Reportable Disease	# of Cases 08-09 Influenza Season
Influenza-associated deaths among those <18 years of age	4*
Post-influenza infection encephalitis	0

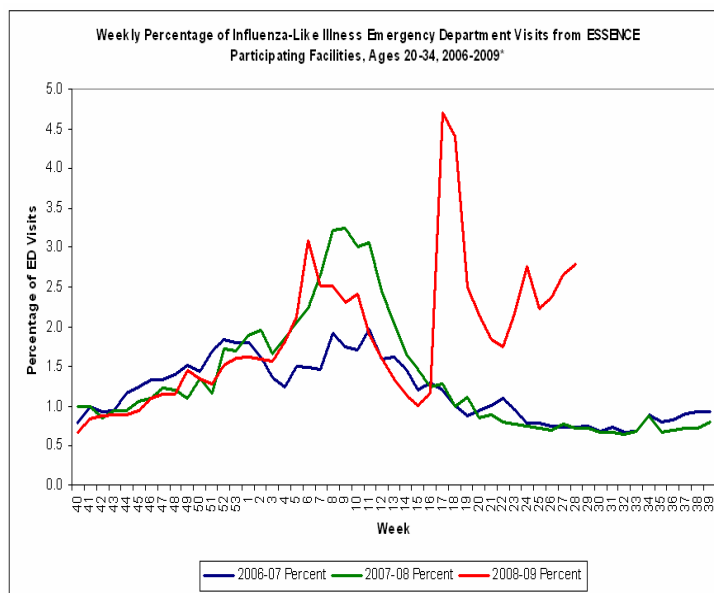
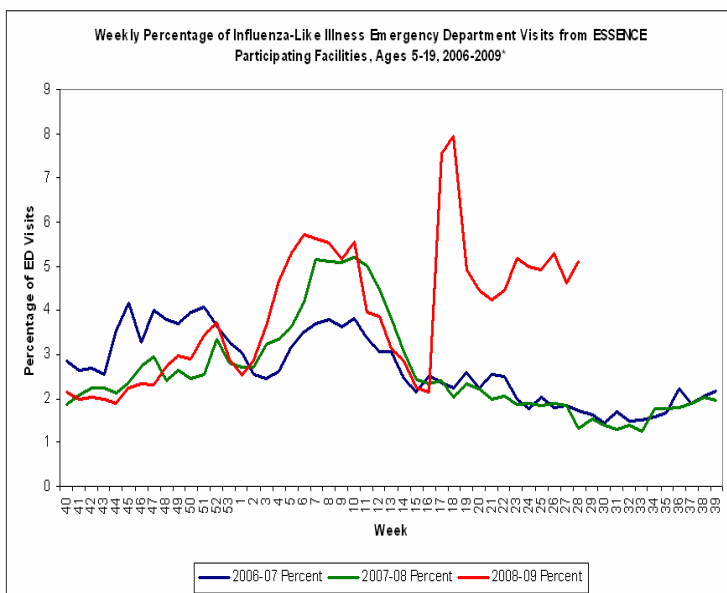
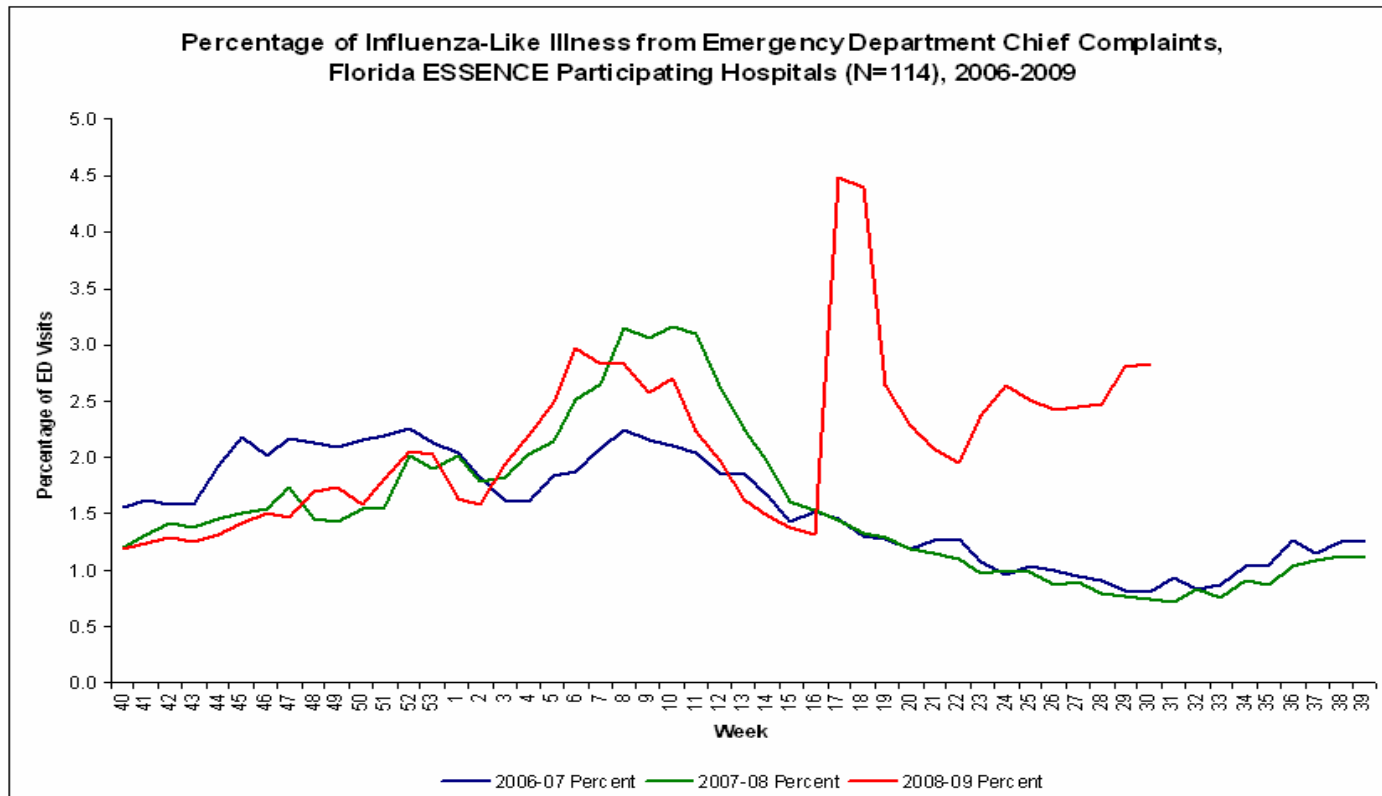
\*Case reported during week 6 was reclassified as a suspect case. Please note that status of reported cases are subject to change upon receipt of additional information.

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](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 114\* 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

### 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 436 confirmed human cases and 262 deaths. Cases and deaths have occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Bangladesh 1 case and 0 deaths; Cambodia 8 cases and 7 deaths; China 38 cases and 25 deaths; Djibouti 1 case and 0 deaths; Egypt 81 cases and 27 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](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](http://www.who.int/csr/disease/avian_influenza/guidelines/case_definition2006_08_29/en/index.html)

During weeks 26-29, no new cases of Influenza A H5N1 were reported.

During week 25, 3 new cases of Influenza A (H5N1) were reported by the Ministry of Health of Egypt. The first case is a 1-year old male from Domiat Governorate. His symptoms started on June 1, 2009. He was admitted to hospital on June 2<sup>nd</sup>. The second case is a 4-year old female from Dakhlia Governorate. Her symptoms started on June 5, 2009. She was admitted to hospital on June 6<sup>th</sup>. Both patients received oseltamivir treatment, are have recovered. The third case is a 1-year old male from Kaleen District, Keفر El Sheikh Governorate. His symptoms started on June 15<sup>th</sup>, 2009. He was admitted to Keفر El Sheikh Fever Hospital on June 16, 2009, where he received oseltamivir treatment, and is in a stable condition. Investigations indicated that all three cases had close contact with dead and/or sick poultry.

Information about previously reported cases can be found at: [http://www.who.int/csr/disease/avian\\_influenza/updates/en/index.html](http://www.who.int/csr/disease/avian_influenza/updates/en/index.html)

### Influenza A (H1N1) - (Swine Origin) -Updated 07/29/09

Worldwide, a total of 134,503 confirmed human cases and 816 confirmed deaths due to influenza A (H1N1) have been reported, since the virus was first recognized in April 2009. The WHO is no longer collecting data on individual cases reported from around the world. As a result of this, the number of cases reported here is most likely an underestimate of the true burden of disease.

For a summary of the most up to date H1N1 information please visit:

<http://www.who.int/csr/disease/swineflu/en/index.html>

In the United States, a total of 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands have reported confirmed cases of Influenza A (H1N1) swine origin. There have been a total of 43,771 cases and 302 deaths reported as of July 24, 2009.

July 24, 2009 is the last day that CDC is providing individual confirmed and probable cases of novel H1N1 influenza. CDC will report the total number of hospitalizations and deaths each week, and continue to use its traditional surveillance systems to track the progress of the novel H1N1 flu outbreak. For more information about CDC's novel H1N1 influenza surveillance system, see [Questions & Answers About CDC's Novel H1N1 Influenza Surveillance](#).

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

**Because the WHO, the CDC, and the Florida Department of Health are no longer collecting representative data on all H1N1 cases that are occurring, reporting the number of new cases likely under represents the true burden of disease. For that reason, case counts will no longer be reported in this publication after this week.**



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

**3,321** cases reported year-to-date (as of 10:00 a.m. July 29, 2009)  
**584** cases newly reported (10:00 a.m. July 21 to 10:00 a.m. July 29, 2009)

This report presents cases reported in Merlin for the dates and times listed above.  
Please note that numbers are provisional and subject to change.

### Year-to-date confirmed cases by county, Florida (n=3,321)

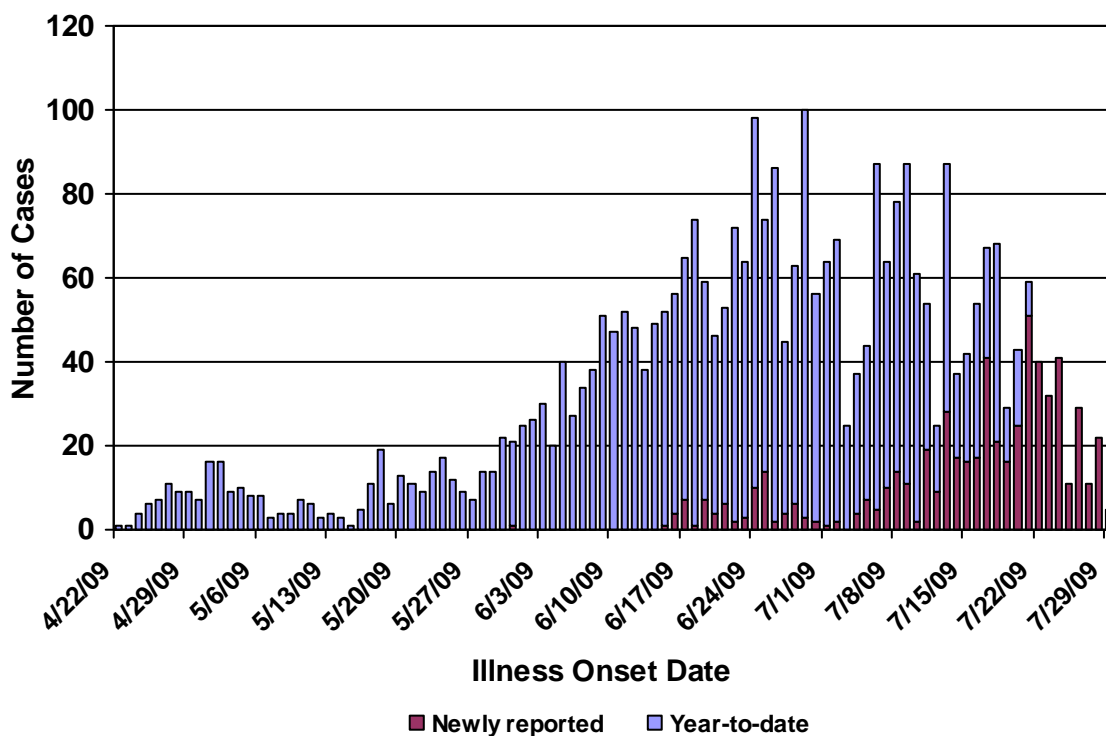
County	Frequency	Percent
ALACHUA	64	1.93
BAKER	3	0.09
BAY	10	0.30
BRADFORD	2	0.06
BREVARD	28	0.84
BROWARD	330	9.94
CHARLOTTE	21	0.63
CITRUS	7	0.21
CLAY	14	0.42
COLLIER	53	1.60
COLUMBIA	3	0.09
DADE	963	29.00
DESOTO	1	0.03
DUVAL	64	1.93
ESCAMBIA	47	1.42
FLAGLER	7	0.21
GADSDEN	5	0.15
GILCHRIST	3	0.09
GLADES	5	0.15
GULF	2	0.06
HAMILTON	1	0.03
HENDRY	4	0.12
HERNANDO	4	0.12
HIGHLANDS	17	0.51
HILLSBOROUGH	182	5.48
INDIAN RIVER	29	0.87
LAKE	61	1.84
LEE	46	1.39
LEON	16	0.48
LEVY	4	0.12
MANATEE	32	0.96
MARION	11	0.33
MARTIN	67	2.02
MONROE	7	0.21
NASSAU	7	0.21
OKALOOSA	9	0.27
OKEECHOBEE	16	0.48
ORANGE	309	9.30
OSCEOLA	62	1.87
PALM BEACH	329	9.91
PASCO	59	1.78
PINELLAS	85	2.56
POLK	105	3.16
PUTNAM	1	0.03
SANTA ROSA	15	0.45
SARASOTA	24	0.72
SEMINOLE	102	3.07
ST. JOHNS	33	0.99
ST. LUCIE	22	0.66
SUMTER	1	0.03
TAYLOR	2	0.06
UNION	1	0.03
VOLUSIA	25	0.75
WALTON	1	0.03

### Newly reported confirmed cases by county, Florida (n=584)

County	Frequency	Percent
ALACHUA	18	3.08
BAY	2	0.34
BREVARD	3	0.51
BROWARD	49	8.39
CHARLOTTE	2	0.34
CITRUS	2	0.34
COLLIER	6	1.03
DADE	99	16.95
DUVAL	18	3.08
GADSDEN	3	0.51
GILCHRIST	3	0.51
GLADES	3	0.51
HENDRY	4	0.68
HERNANDO	1	0.17
HIGHLANDS	4	0.68
HILLSBOROUGH	55	9.42
INDIAN RIVER	22	3.77
LAKE	4	0.68
LEE	2	0.34
LEON	10	1.71
MANATEE	7	1.20
MARION	2	0.34
MARTIN	1	0.17
NASSAU	3	0.51
OKALOOSA	3	0.51
OKEECHOBEE	5	0.86
ORANGE	70	11.99
OSCEOLA	15	2.57
PALM BEACH	65	11.13
PASCO	25	4.28
PINELLAS	21	3.60
POLK	15	2.57
SANTA ROSA	3	0.51
SARASOTA	11	1.88
SEMINOLE	14	2.40
ST. JOHNS	6	1.03
ST. LUCIE	1	0.17
TAYLOR	2	0.34
VOLUSIA	5	0.86

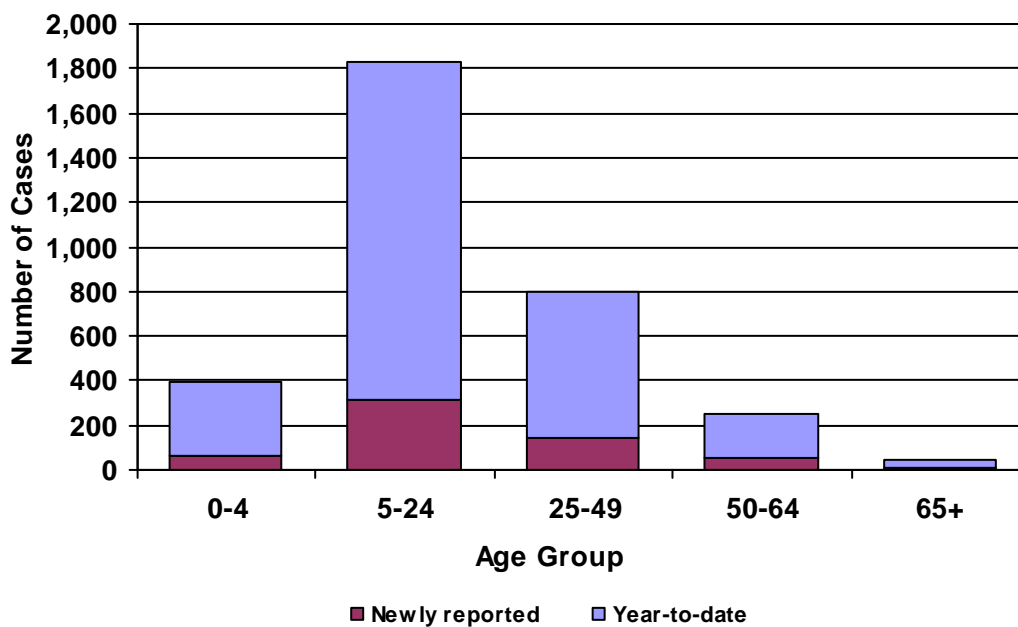
**X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY**

**Confirmed and probable cases by event date\*, Florida**



\*Event date is the earliest date associated with the case (onset date, date of diagnosis, lab report date, or date reported to the county)

**Confirmed and probable cases by age, Florida**



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

### Year-to-date confirmed and probable cases by age, gender\*, and outcome<sup>†</sup>, Florida

	Age			Female		Male		Hospitalized		Deaths	
	N	% of total cases	Rate <sup>‡</sup>	N	% of age group	N	% of age group	N	% of age group	N	% of age group
<b>0-4</b>	393	11.83	34.75	156	40.94	225	59.06	64	16.28	0	0.00
<b>5-24</b>	1,830	55.10	38.16	826	45.89	974	54.11	137	7.49	3	0.16
<b>25-49</b>	799	24.06	12.89	409	52.30	373	47.70	115	14.39	15	1.88
<b>50-64</b>	250	7.53	6.82	132	54.10	112	45.90	69	27.60	12	4.80
<b>65+</b>	49	1.48	1.48	29	59.18	20	40.82	19	38.78	1	2.04
<b>Total</b>	3,321	100.00	17.37	1,552	47.67	1,704	52.33	404	12.17	31	0.93

**Age: range=0-109; average=21.3; median=17.0**

\*65 cases are missing gender and are excluded from gender percentage calculations.

<sup>†</sup>Cases that die with H1N1 are being counted, though the death may or may not be due or attributed to H1N1.

<sup>‡</sup>Rate is per 100,000 population; population data are from CHARTS.

**\*The Bureau of Epidemiology is no longer requesting that all case report form questions be filled out for all patients, only those who are hospitalized or of epidemiologic significance. Risk factor, symptom, and test and vaccination questions have fewer respondents. The number of cases with a “yes” or “no” answer for each question is presented in the column “# of answers” and this number serves as the denominator for each row.**

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](http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/index.html)