

FLORIDA INFLUENZA SURVEILLANCE

Week 26: June 28th 2009- July 4th 2009



Kateesha McConnell, MPH, Respiratory Disease Surveillance Epidemiologist
 Kate Goodin, MPH, Surveillance Epidemiologist
 Lea Wansbrough, MPH, FL EIS Fellow
 Leah Eisenstein, MPH, Surveillance Epidemiologist
 Aaron Kite-Powell, Surveillance Epidemiologist
 Lillian Stark, PhD, MPH, MS, Bureau of Laboratories-Tampa
 Valerie Mock, Bureau of Laboratories-Jacksonville
 Julian Everett, Influenza Coordinator
 Megan Hendrix, FSU Intern
 Subir Goyal, FSU Intern



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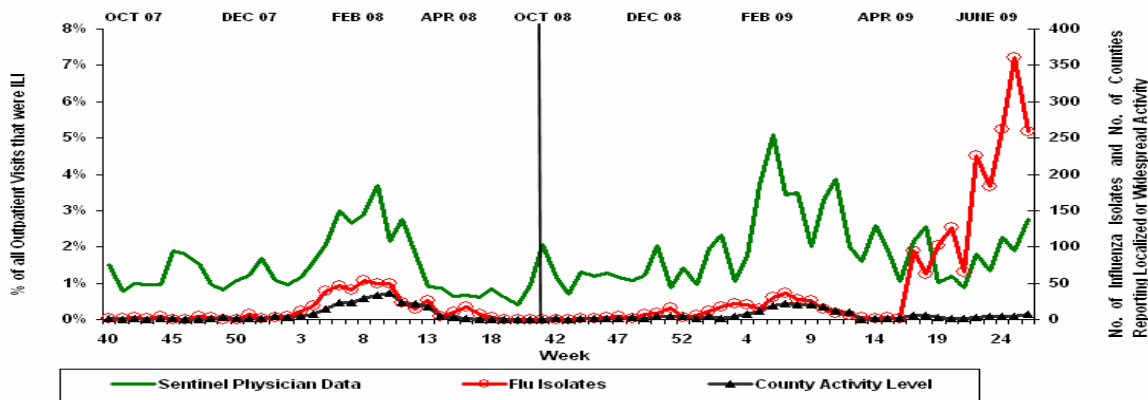
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I. SUMMARY

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 26 (06/28/09-07/04/09), the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 2.75 percent. This is below the state threshold for moderate activity of 2.98 percent. Two hundred fifty-nine (79%) of 327 ILI specimens tested by Bureau of Laboratories were positive for influenza. No counties reported widespread activity and eight counties reported localized activity. Twenty-seven counties reported sporadic activity and 13 counties reported no activity. Nineteen 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 26). 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>.

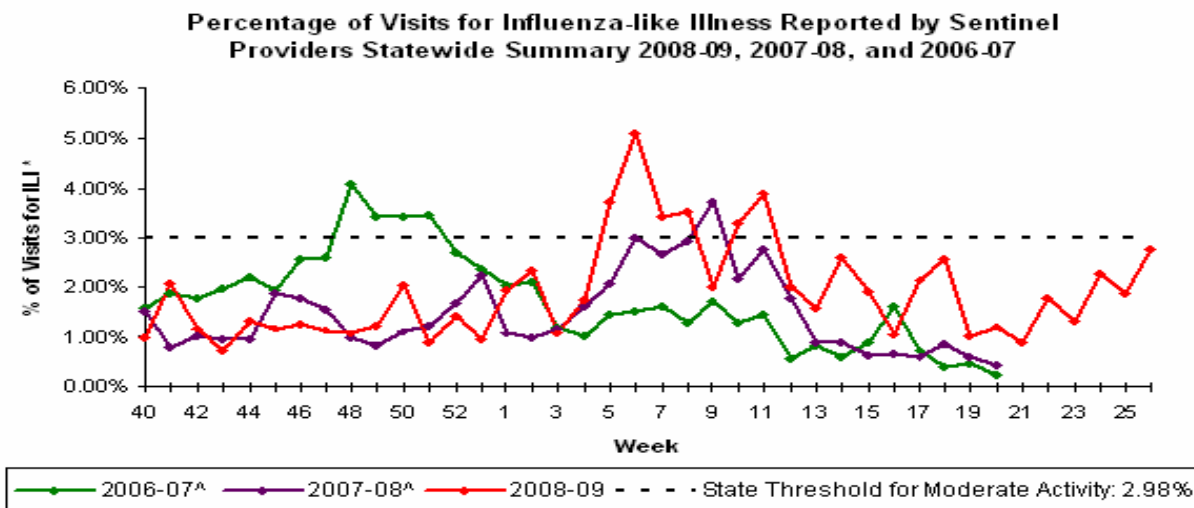


*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza 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 26, 2.75%* 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 and Northwest to 4.96% in the Centralist region.



*FSPISN reporting is incomplete for this week (29% of providers reported). Numbers may change as more reports are received. Data displayed is weighted to the state population.

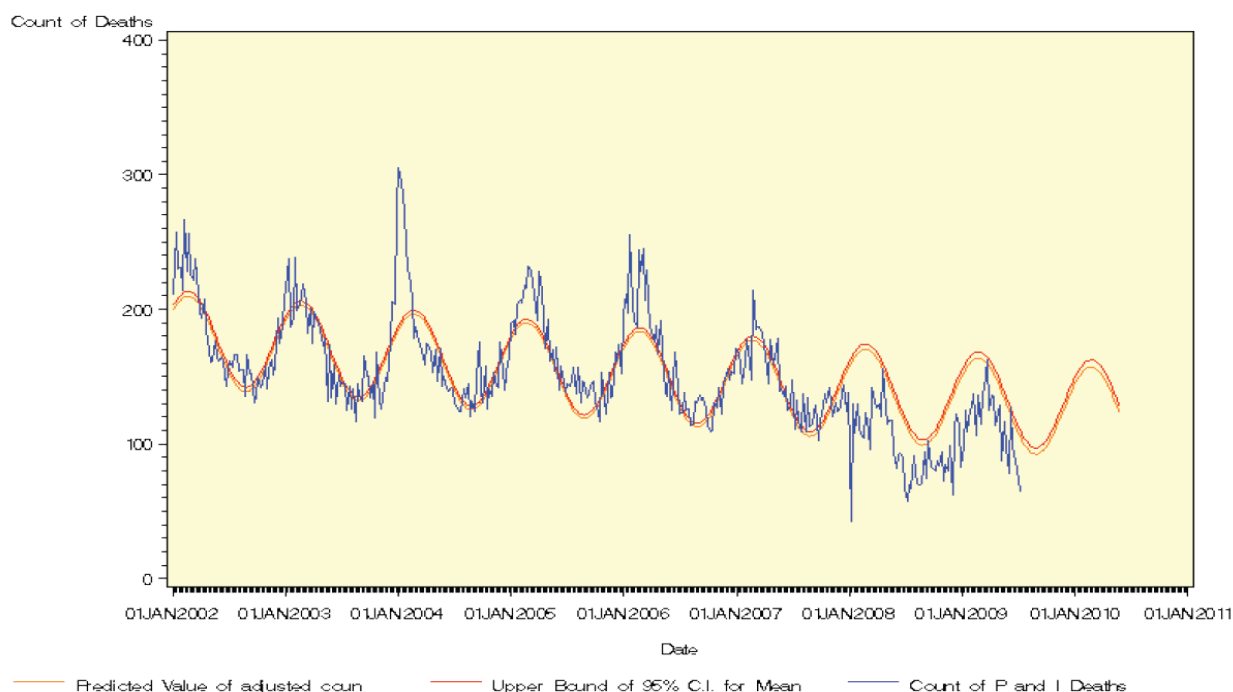
**The 2008—09 threshold for moderate activity is calculated from FSPISN data. The threshold for moderate activity is the mean percentage of patient visits for ILI during influenza weeks for the previous three seasons plus two standard deviations. Only weeks with 10% or greater of laboratory specimens 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 26, 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 26 and observed mortality does not indicate that Florida has surpassed the epidemic threshold for this week**.

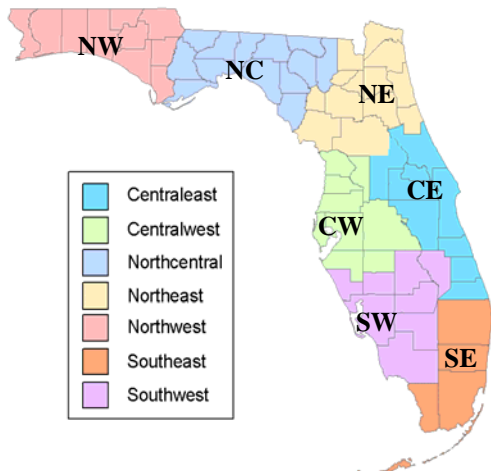
Pneumonia and Influenza Mortality for 24 Florida Counties, Counts Model



**Twenty of 24 counties reported P&I deaths to create this trend graph. Please note: Data from Broward, Hillsborough, Orange, and Volusia was not available. 100% participation is required for this graph to provide an accurate representation.

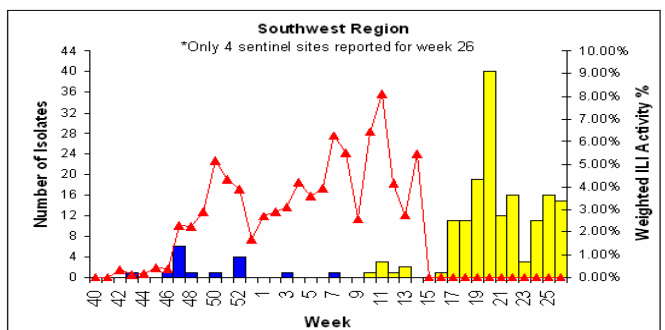
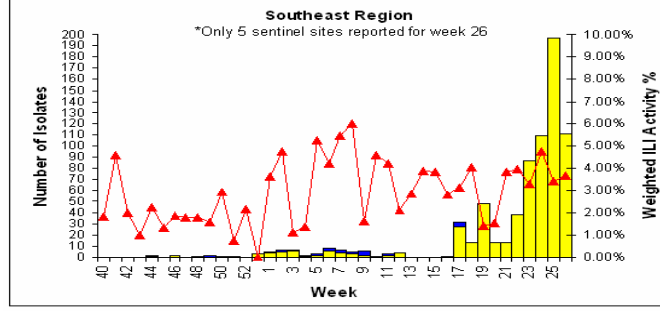
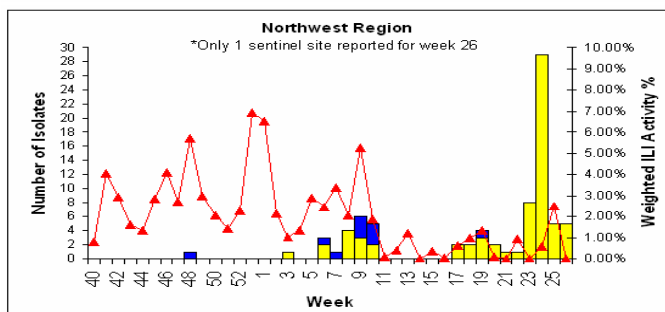
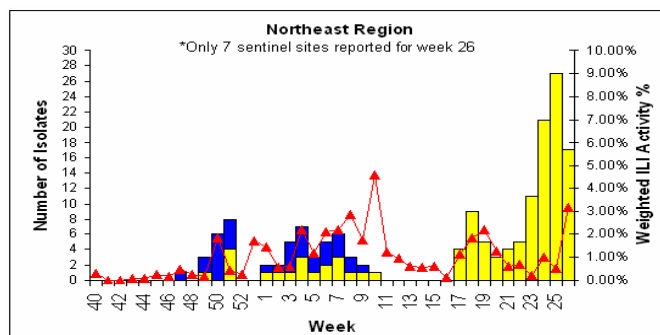
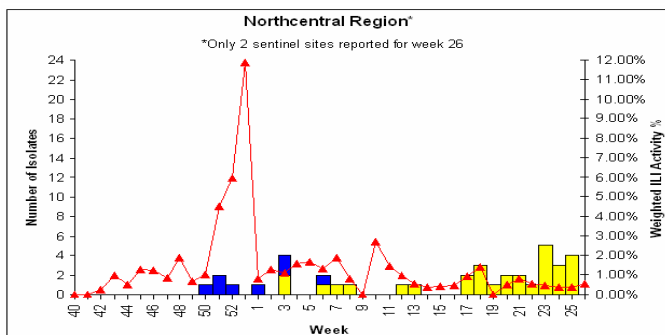
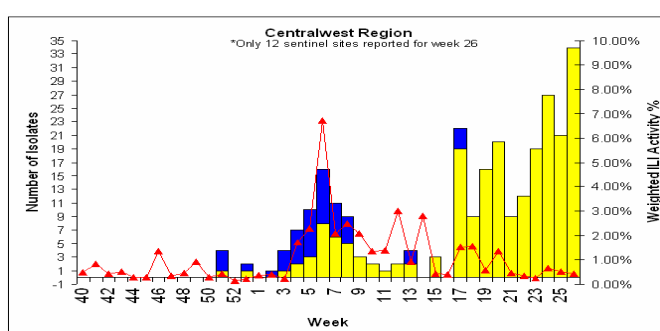
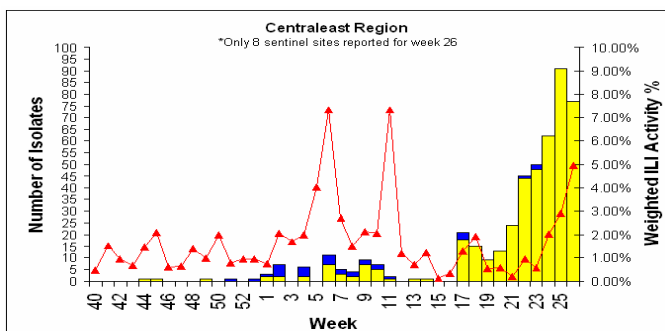
V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

Influenza Surveillance Regions



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

Week 26: FSPISN Weighted ILI Activity, by Region 2007-08 & 2008-09 Seasons	
REGION	2008-09 ILI %
Centraleast	4.96%
Centralwest	0.42%
Northcentral	0.56%
Northeast	3.18%
Northwest	0.00%
Southeast	3.66%
Southwest	0.00%



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

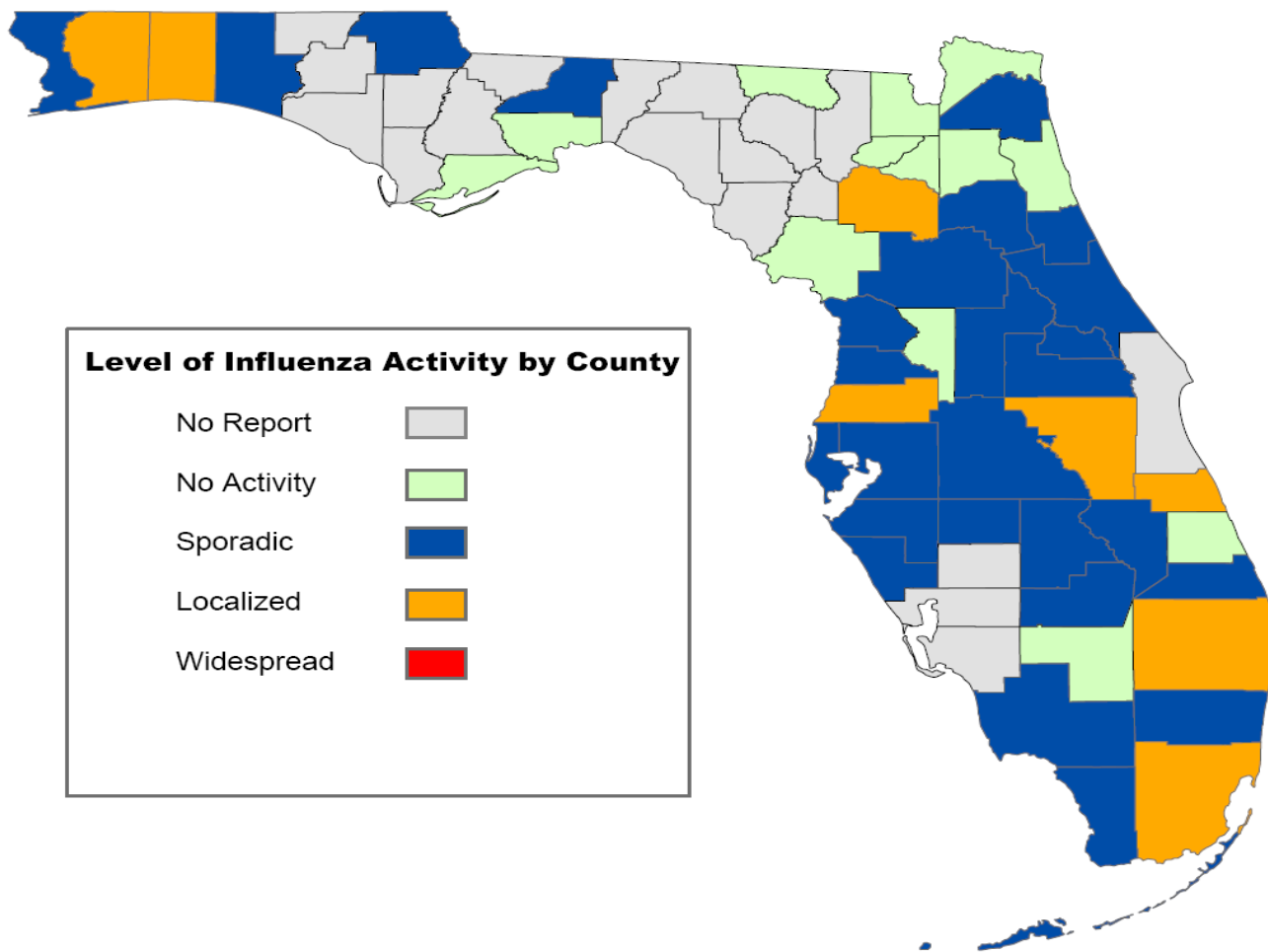
VI. COUNTY INFLUENZA ACTIVITY MAP

During week 26, no counties reported widespread activity. Eight counties reported localized activity (Alachua, Miami-Dade, Indian River, Okaloosa, Osceola, Palm Beach, Pasco, and Santa). Twenty-seven counties reported sporadic activity and 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 July 4, 2009 - Week 26)

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 9, 2009 at 1:30 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 26, there were over five 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 26 (07/04/09): 27

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

As of the week ending July 4, 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.

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

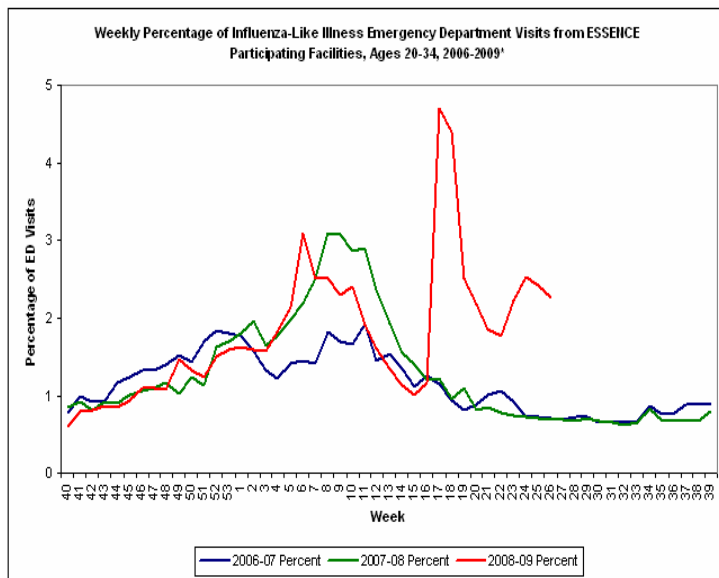
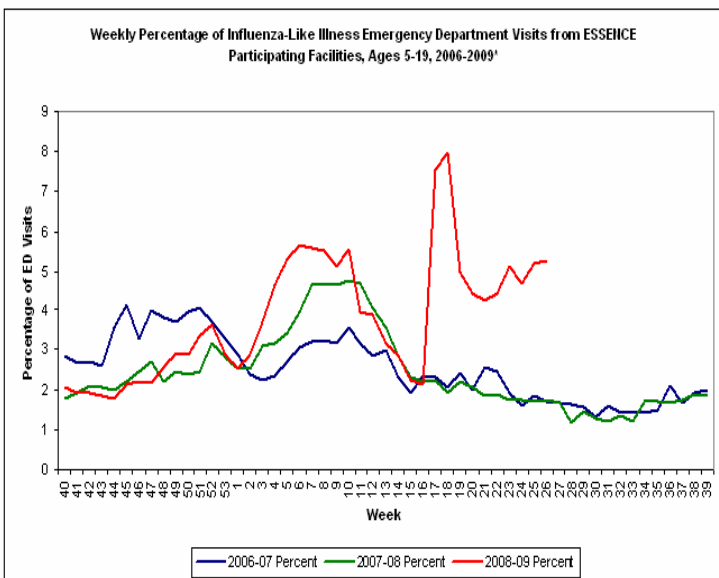
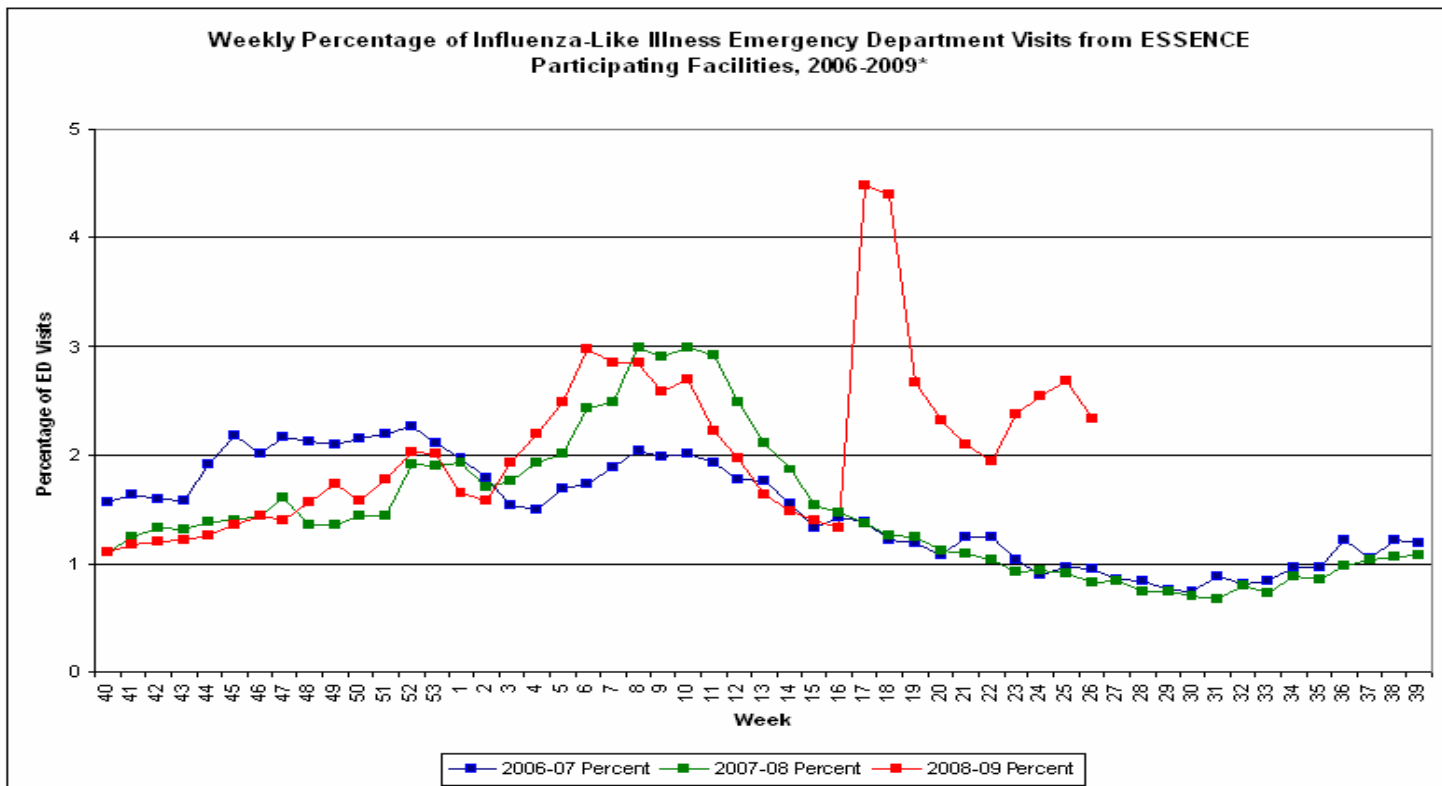
Reportable Disease	# of Cases 08-09 Influenza Season
Influenza-associated deaths among those <18 years of age	4*
Post-influenza infection encephalitis	0

*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.

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

Accessed on: 07/09/09

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 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

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 26, 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 2nd. 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 6th. 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 15th, 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

Influenza A (H1N1) - (Swine Origin) -Accessed 07/09/09

Worldwide, a total of 94,502 confirmed human cases and 429 confirmed deaths due to influenza A (H1N1) have been reported, since the virus was first recognized in April 2009.

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 37,246 cases and 211 deaths reported as of July 10, 2009.

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

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

Confirmed swine influenza H1N1 cases by county (n=1,781), Florida, as of July 8, 2009

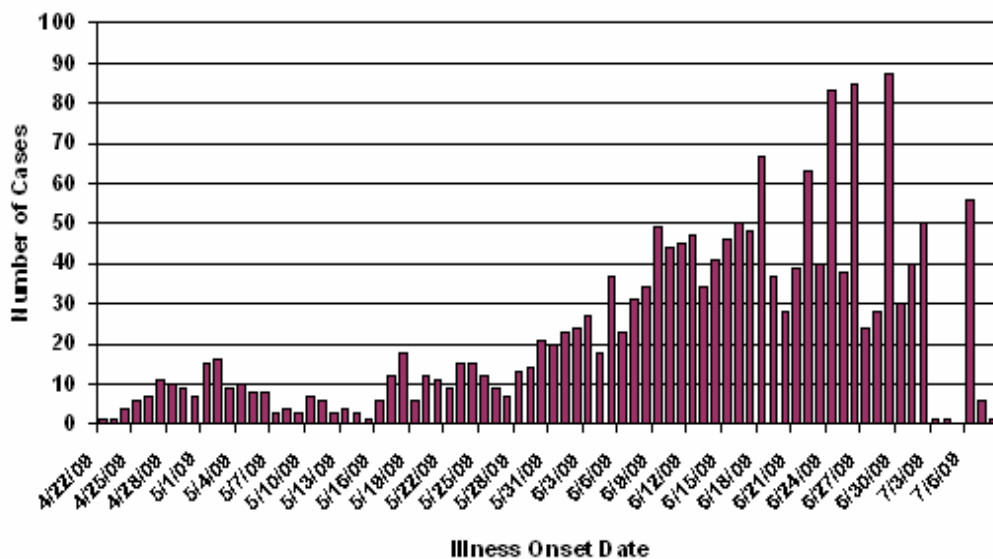
County	Frequency	Percent
ALACHUA	31	1.74
BAKER	1	0.06
BAY	5	0.28
BRADFORD	2	0.11
BREVARD	11	0.62
BROWARD	161	9.04
CHARLOTTE	11	0.62
CITRUS	3	0.17
CLAY	11	0.62
COLLIER	34	1.91
DADE	631	35.43
DESOTO	1	0.06
DUVAL	24	1.35
ESCAMBIA	45	2.53
FLAGLER	5	0.28
GADSDEN	1	0.06
GLADES	2	0.11
HAMILTON	1	0.06
HERNANDO	2	0.11
HIGHLANDS	5	0.28
HILLSBOROUGH	87	4.88
INDIAN RIVER	5	0.28
LAKE	37	2.08
LEE	36	2.02

County	Frequency	Percent
LEON	3	0.17
LEVY	2	0.11
MANATEE	10	0.56
MARION	3	0.17
MARTIN	50	2.81
MONROE	4	0.22
NASSAU	3	0.17
OKALOOSA	2	0.11
OKEECHOBEE	6	0.34
ORANGE	151	8.48
OSCEOLA	19	1.07
PALM BEACH	146	8.20
PASCO	18	1.01
PINELLAS	37	2.08
POLK	63	3.54
PUTNAM	1	0.06
SANTA ROSA	5	0.28
SARASOTA	6	0.34
SEMINOLE	52	2.92
ST. JOHNS	18	1.01
ST. LUCIE	14	0.79
SUMTER	1	0.06
VOLUSIA	15	0.84

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

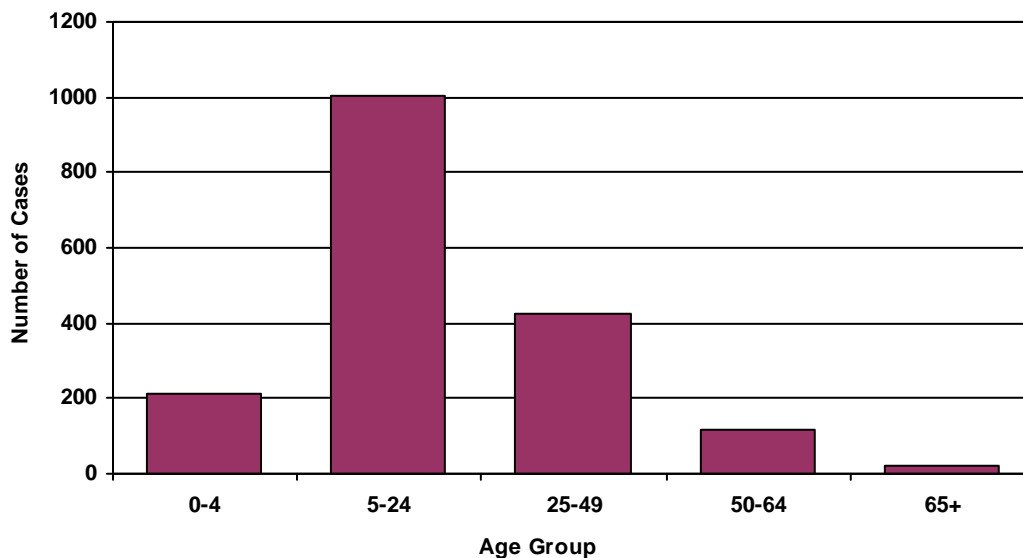
X. SUMMARY OF WORLDWIDE, UNITED STATES, AND FLORIDA NOVEL INFLUENZA ACTIVITY

Confirmed and probable cases by event date*, Florida, as of July 8, 2009



*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, as of July 8, 2009



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

Confirmed and probable cases by age, gender*, and outcome†, Florida, as of July 8, 2009

	Age			Female		Male		Hospitalized		Deaths	
	N	% of total cases	Rate‡	N	% of age group	N	% of age group	N	% of age group	N	% of age group
0-4	213	11.96	18.84	84	40.58	123	59.42	44	20.66	0	0.00
5-24	1,003	56.32	20.91	434	44.02	552	55.98	78	7.78	1	0.10
25-49	425	23.86	6.85	223	53.73	192	46.27	51	12.00	3	0.710
50-64	117	6.57	3.19	70	60.87	45	39.13	30	25.64	3	2.56
65+	23	1.29	0.69	13	56.52	10	43.48	6	26.09	0	0.00
Total	1,781	100.00	9.32	824	47.19	922	52.81	209	11.73	7	0.39

Age: range=0-85; average=20.7; median=16.0

*35 cases are missing gender and are excluded from gender percentage calculations

†Note that a 55 year old laboratory-confirmed case from Volusia County died, but the death was not attributed to influenza and this death is not included in "Deaths" column.

‡Rate is per 100,000 population; population data are from CHARTS.

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