

FLORIDA INFLUENZA SURVEILLANCE

Week 4: January 25th 2009—January 31st 2009



Kateesha McConnell, MPH, Respiratory Disease Surveillance Epidemiologist
 Kate Goodin, MPH, Surveillance Epidemiologist
 Lillian Stark, PhD, MPH, MS, Bureau of Laboratories-Tampa
 Valerie Mock, Bureau of Laboratories-Jacksonville
 Julian Everett, Influenza Coordinator



IN THIS ISSUE:

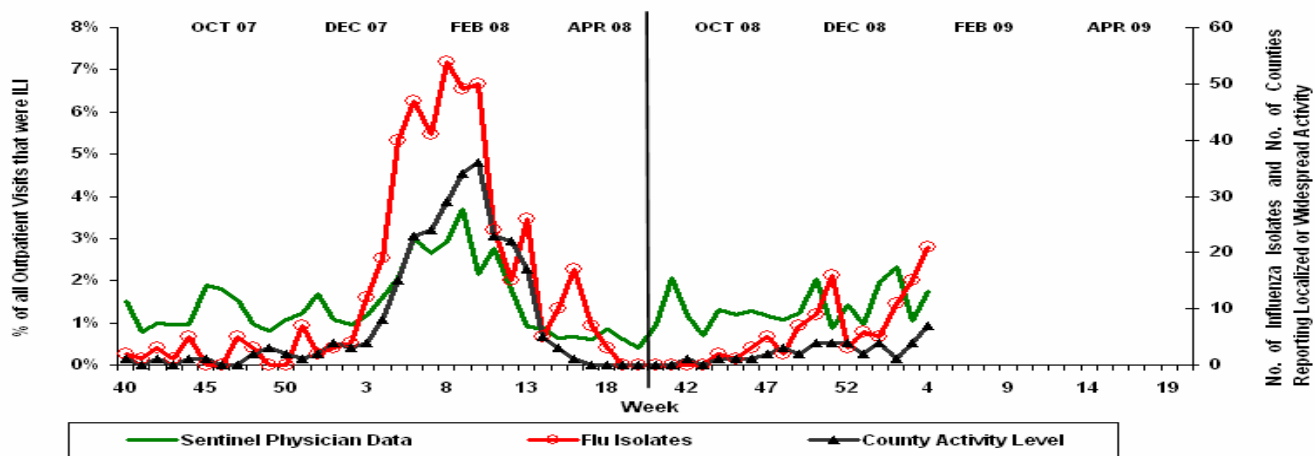
- I. Summary
- II. FSPISN Influenza-like Illness Statewide Graph
- III. Florida Pneumonia and Influenza Mortality Surveillance
- IV. FDOH Laboratory Surveillance
- V. Laboratory and Influenza-like Illness Surveillance by Region
- VI. County Influenza Activity Map
- VII. Reports of Influenza or Influenza-like Illness (ILI) Outbreaks
- VIII. Notifiable Disease Reports: Influenza-associated deaths in children & post-influenza infection encephalitis
- IX. ESSENCE ILI syndromic surveillance summary
- X. Summary of Worldwide A/H5N1 Influenza Activity

I. SUMMARY

This is the eighteenth 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; 6) Influenza or ILI outbreaks; 7) Syndromic surveillance.

During week 4 (01/25/09-01/31/09), the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 1.75 percent. This is below the state threshold for moderate activity of 2.98 percent. Twenty-one of the thirty-two ILI specimens tested by Bureau of Laboratories were positive for influenza. No counties reported widespread activity and seven counties reported localized activity. Twenty-five counties reported sporadic activity and 8 counties reported no activity. Twenty-seven 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 4). 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. The CDC report can be viewed at <http://www.cdc.gov/flu/weekly/usmap.htm>.



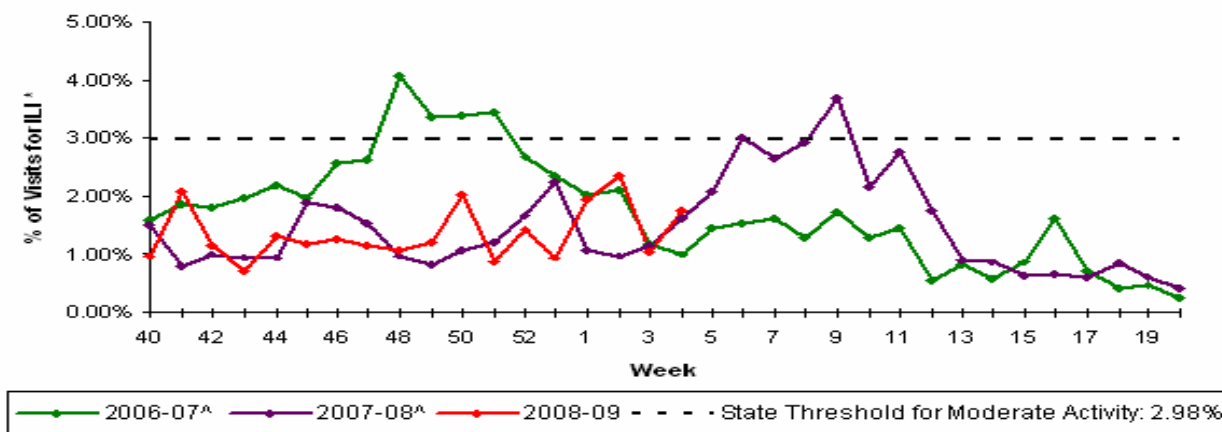
*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza 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 4, 1.75%* 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 1.35% in the Northwest to 4.21% in the Southwest 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 (52% 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.

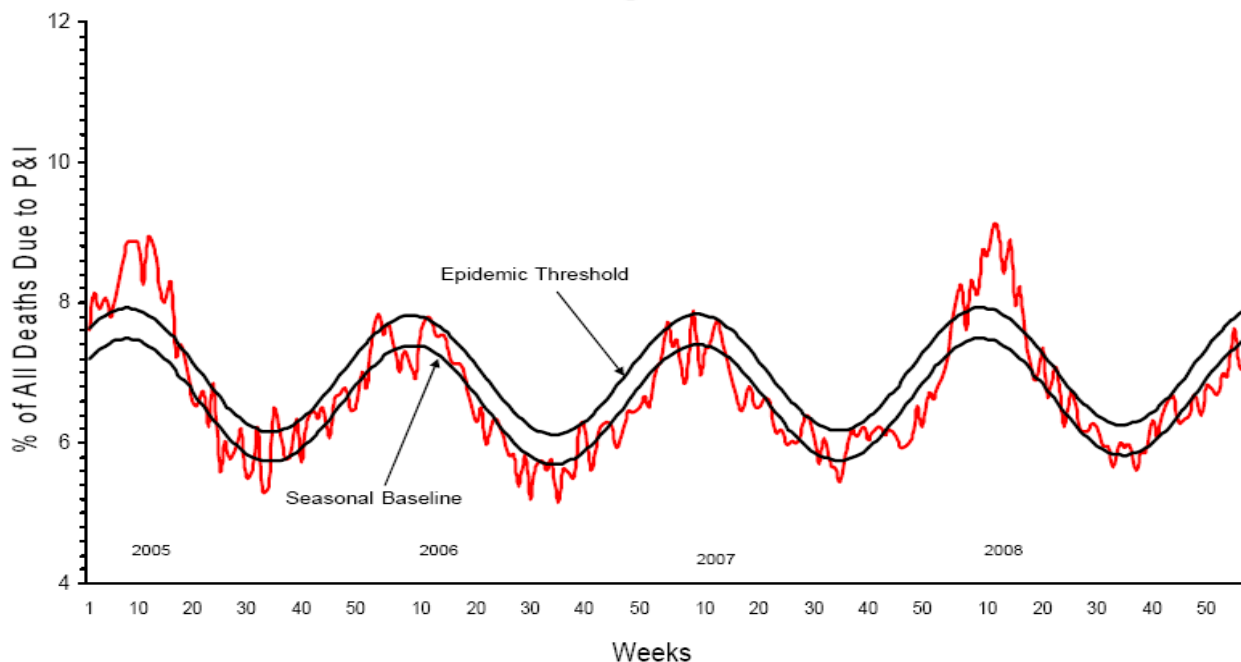
^ There was no week 53 during the 2006-07 and 2007-08 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

III. FLORIDA PNEUMONIA AND INFLUENZA MORTALITY SURVEILLANCE

Please refer to the most recent national data compiled by the CDC below. Three major metropolitan locations participate in the national 122 Cities Mortality Reporting System. Florida is currently in the process of updating the Florida Pneumonia and Influenza Mortality Surveillance System (FPIMSS). Twenty-three counties participate in the FPIMSS. During week 4, four counties did not report. Data from all participating counties are required to accurately display the data in this report.

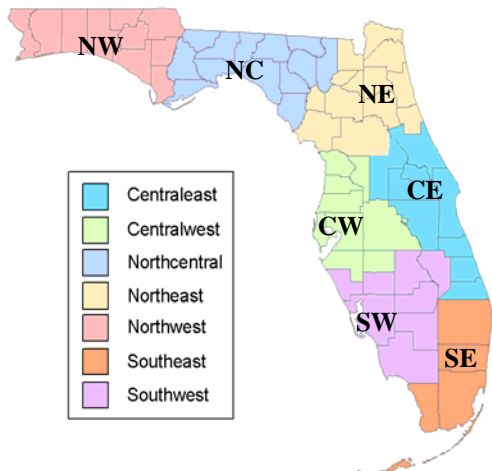
Pneumonia and Influenza (P&I) Mortality Surveillance: During week 4, 7.0% of all deaths reported through the 122-Cities Mortality Reporting System were due to P&I. This percentage is below the epidemic threshold of 7.9% for week 4.

Pneumonia and Influenza Mortality for 122 U.S. Cities
Week ending 01/31/2009



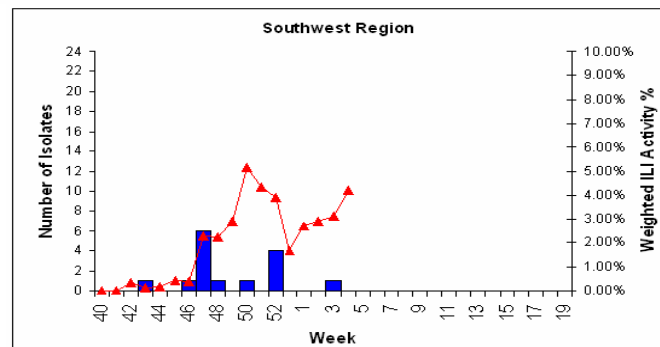
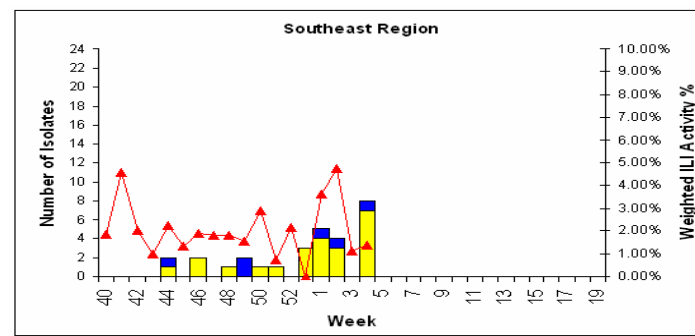
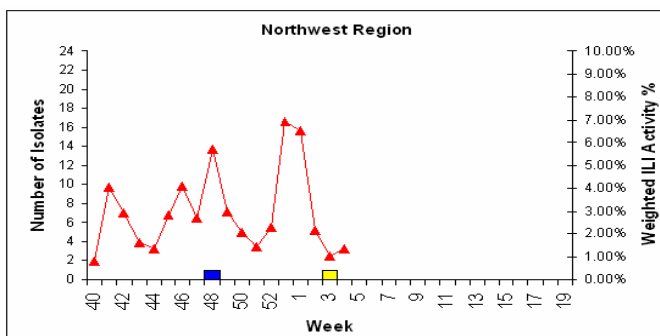
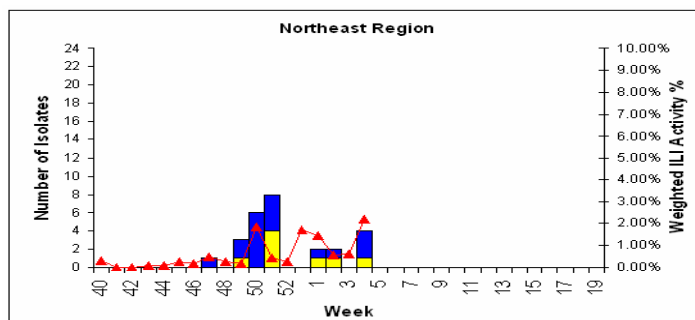
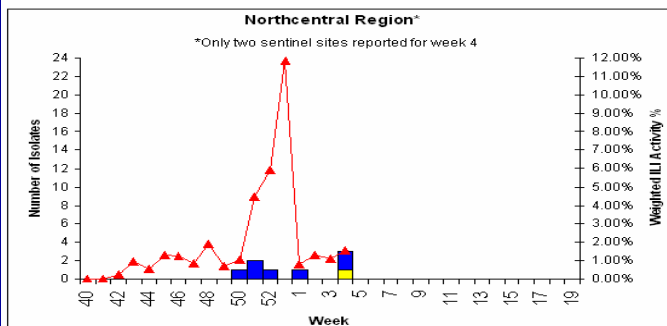
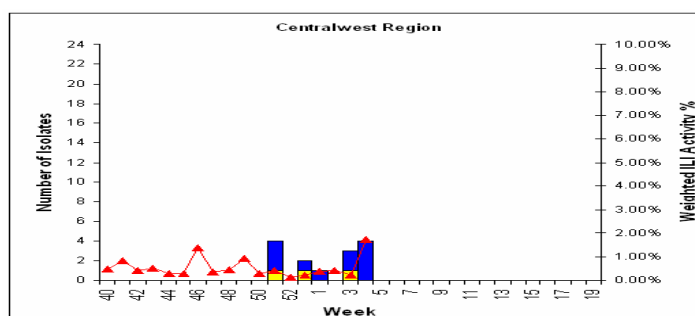
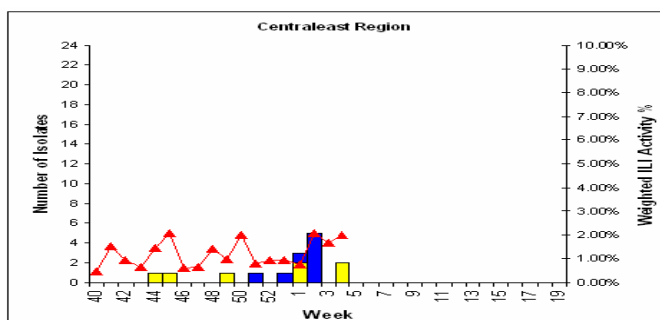
V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

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 4: FSPISN Weighted ILI Activity, by Region 2007-08 & 2008-09 Seasons		
REGION	2008-09 ILI %	2007-08 ILI %
Centraleast	1.98%	1.20%
Centralwest	1.72%	0.00%
Northcentral	1.56%	2.18%
Northeast	2.17%	0.29%
Northwest	1.35%	0.41%
Southeast	1.36%	1.33%
Southwest	4.12%	0.00%



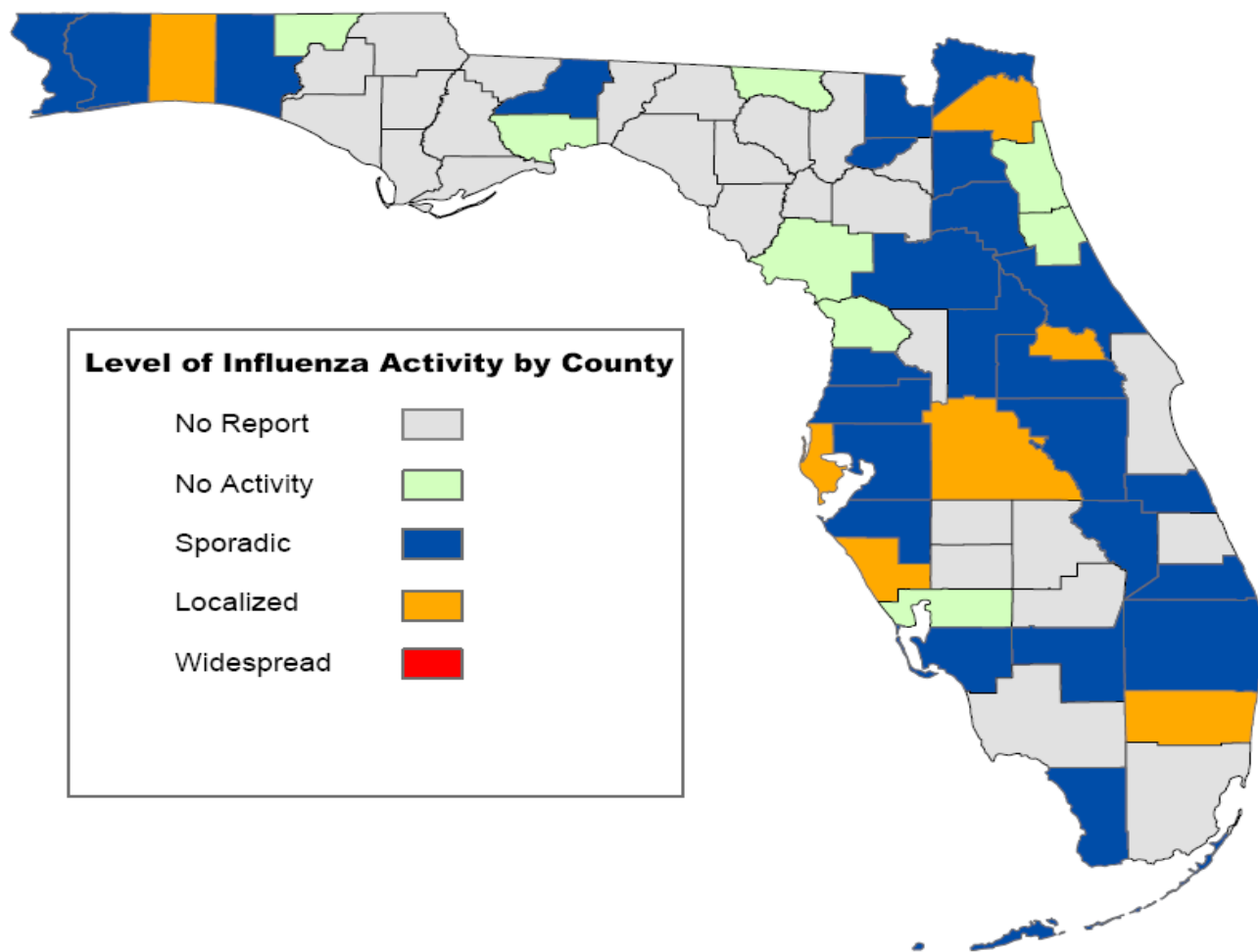
VI. COUNTY INFLUENZA ACTIVITY MAP

During week 4, no counties reported widespread activity, seven counties reported localized activity (Broward, Duval, Okaloosa, Pinellas, Polk, Sarasota, Seminole). Twenty-five counties (Baker, Clay, Escambia, Hendry, Hernando, Hillsborough, Indian River, Lake, Lee, Leon, Manatee, Marion, Martin, Monroe, Nassau, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Putnam, Santa Rosa, Union, Volusia, Walton) reported sporadic activity. Eight counties reported no activity. Twenty-seven counties did not report. *Please note: data reported from counties reporting after the deadline are recorded*

Weekly County Influenza Activity

(Week ending January 31, 2009 - Week 4)

County influenza activity levels are reported by county health department epidemiologists



Florida Department of Health
Bureau of Epidemiology

Disclaimer:
 This product is for reference purposes only and is not to be construed as a legal document. Any reliance on the information contained herein is at the user's own risk. The Florida Department of Health and its agents assume no responsibility for any use of the information contained herein or any loss resulting there from.
 Map printed February 6, 2009

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 4, no new influenza or influenza-like illness outbreaks were reported.

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

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

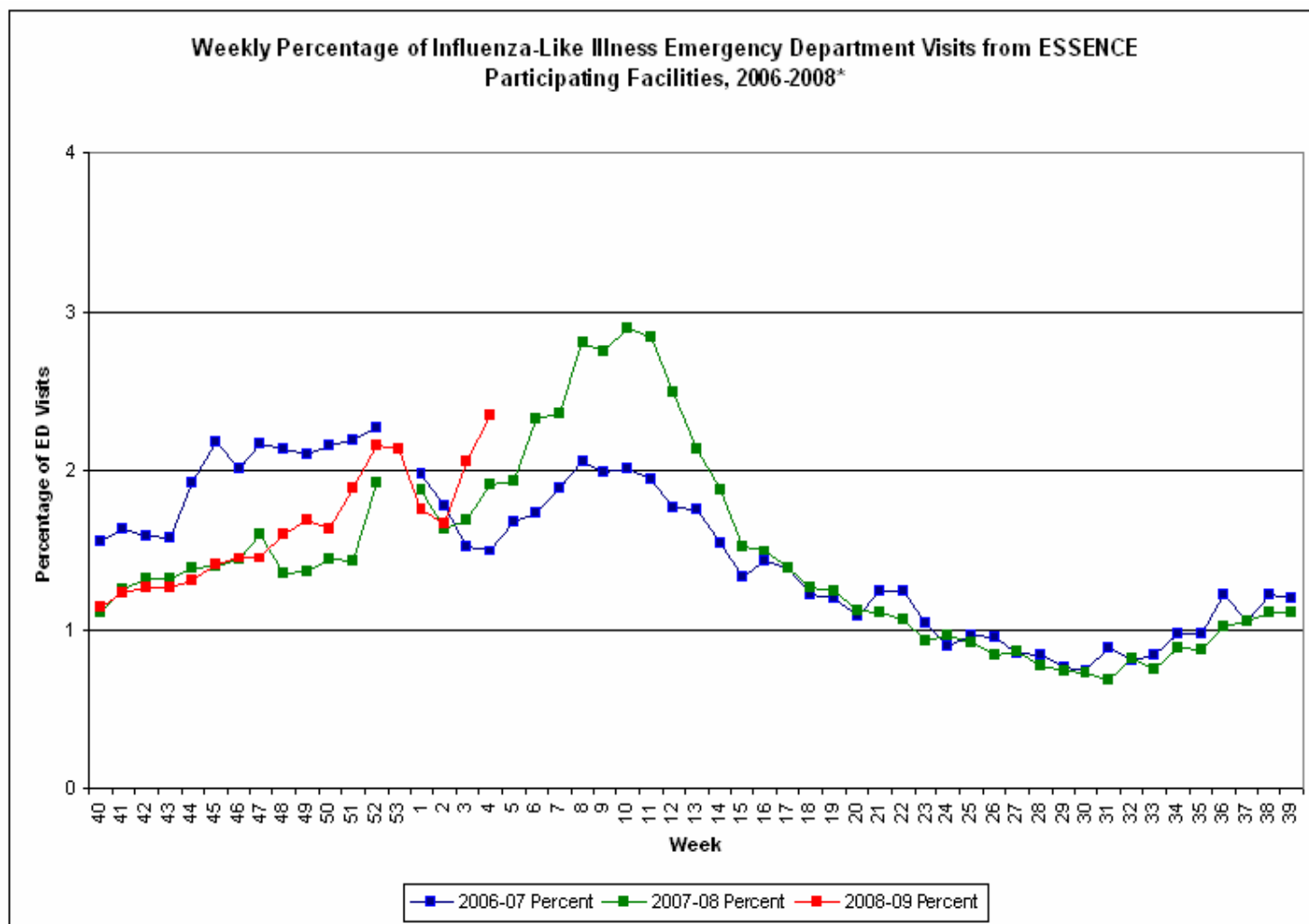
As of the week ending January 31, 2009, there were no influenza-associated deaths among those <18 years of age and/ or post influenza infection encephalitis reported in the state of Florida.

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

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

Syndromic surveillance ILI data as monitored through the ESSENCE system is a newly added component of the overall state influenza surveillance program. Florida uses the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for syndromic surveillance, which currently collects data from 91* 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 2008 by week.



*The total number of facilities participating in ESSENCE has increased steadily from 2006 to 2008. 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 A/H5N1 INFLUENZA ACTIVITY

Update 01/27/09

Since the outbreak activity began at the end of December 2003, there have been a total of 403 confirmed human cases and 254 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 37 cases and 25 deaths; Djibouti 1 case 0 deaths; Egypt 53 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 107 cases and 52 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 4, The Ministry of Health and Population of Egypt announced a new human case of avian influenza A (H5N1) virus infection. The case is a 2-year old female from the Manofia Governorate. Her symptoms began on January 23rd, 2009 and she was hospitalized immediately. The patient is currently in stable condition.

The Ministry of Health in China reported 3 new confirmed human cases of avian influenza A (H5N1) virus infection. The first case was a 31-year old female from Urumqi, Xinjiang Autonomous Region. She developed symptoms on January 10th, 2009, was hospitalized and died on January 23rd. Investigation into possible source of infection indicate recent visits to a live poultry market. The second case was a 29-year old male from Guiyang city, Guizhou. He developed symptoms on January 15th, 2009 and is currently in critical condition. Investigation into the source of infection indicate possible exposure at a poultry market.

The current phase of alert as defined by the WHO global influenza preparedness plan is phase 3, which states that human infections with a new subtype are occurring, but no human-to-human spread, or at most rare instances of spread to a close contact. At the present time the WHO is not recommending restrictions on travel to areas affected by H5N1 avian influenza, but is suggesting that travelers to these areas avoid contact with live animal markets and poultry farms, and any free-ranging or caged poultry. Evidence suggests that the primary route of infection at this time is associated with direct contact with infected poultry, or surfaces and objects contaminated by their droppings.

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

Human cases of influenza due to infection from novel or pandemic strains are reportable in Florida. Reports should be made to the Department 24/7 upon initial suspicion.