

FLORIDA INFLUENZA SURVEILLANCE

Week 51: December 16th—December 22nd 2007



Kateesha McConnell, MPH, FL EIS Fellow
 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-assoc. deaths in children & post-influenza infection encephalitis
- IX. Summary of Worldwide A/H5N1 Influenza Activity

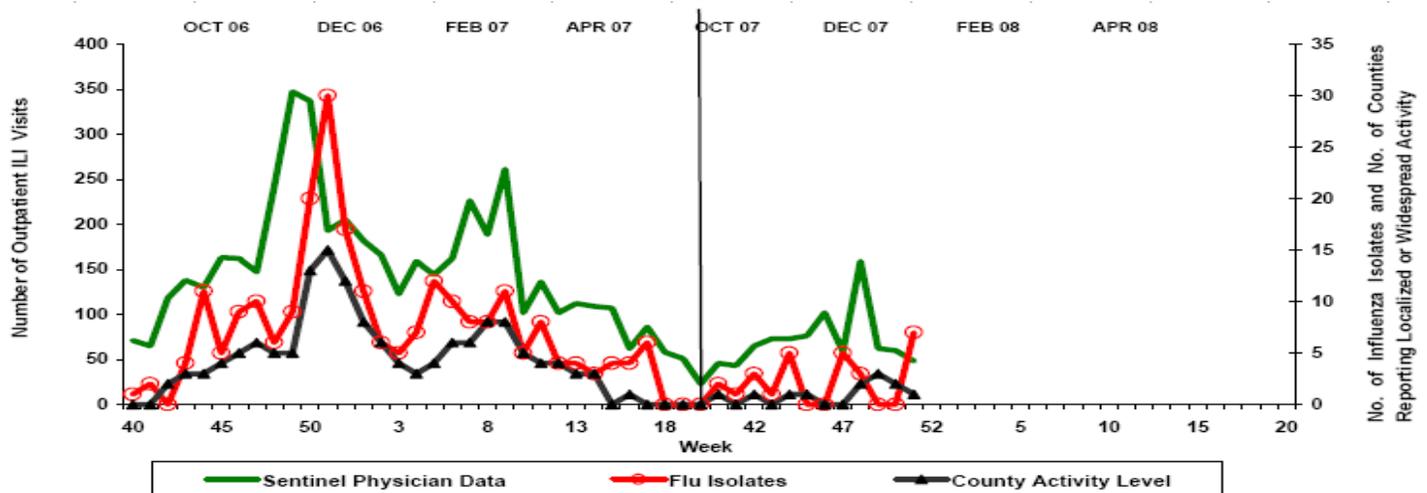
I. SUMMARY

This is twelfth weekly Florida influenza surveillance report for the 2007-08 season. Influenza surveillance in Florida consists of six 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.

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. Localized activity has been reported for Florida for this reporting week (Week 51). There has been an increase in influenza activity in one region of the state with lab confirmation. Therefore, Florida meets the CDC localized activity definition. The CDC definition for localized activity is: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state. The CDC report can be viewed at <http://www.cdc.gov/flu/weekly/usmap.htm>.

During week 51 the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 1.57 percent. This is below the state threshold for moderate activity of 1.75 percent. Seven of the 19 specimens tested by Bureau of Laboratories were positive for influenza. No counties reported widespread activity and one county reported localized activity. Fourteen counties reported sporadic activity and 25 counties reported no activity. Twenty-eight counties did not report. The graph below shows the progression of the 2006-07 & 2007-08 Florida influenza seasons as monitored by three** of six surveillance systems.

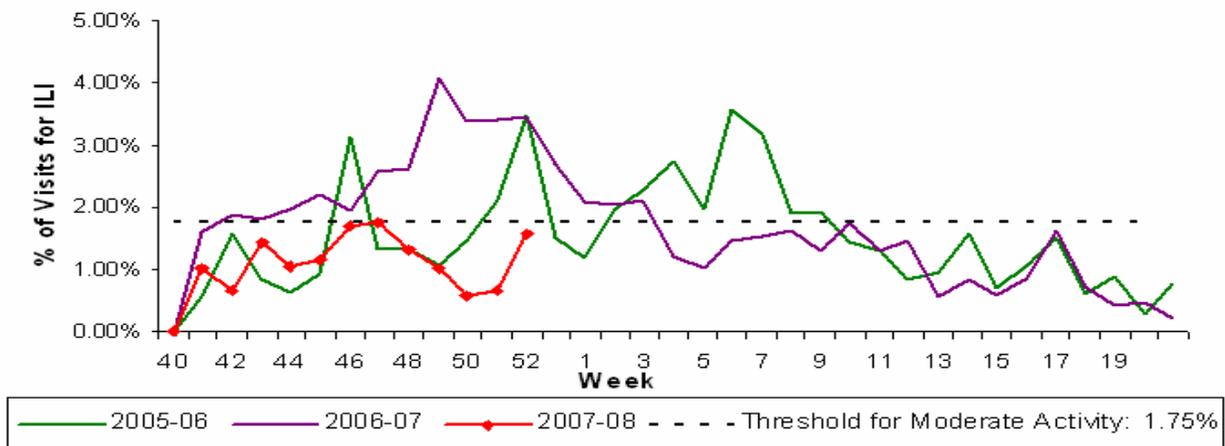
FLORIDA INFLUENZA SURVEILLANCE DATA FOR 2006-07 & 2007-08 AS REPORTED BY THREE DIFFERENT SURVEILLANCE SYSTEMS**



II. FSPISN INFLUENZA-LIKE ILLNESS STATEWIDE GRAPH

During week 50, 1.57%* of patient visits to Florida sentinel providers were due to ILI. This percentage is below the statewide baseline of 1.75%** . The percentage of visits ranged from 0.00% in the Centralwest, Northcentral, and Southwest region to 2.75% in the Southeast region. For the 2006-07 influenza season the statewide ILI activity percent was 2.67% for week 51.

Percentage of Visits for Influenza-like Illness Reported by Sentinel Providers Statewide Summary 2007-08, 2006-07, and 2005-06



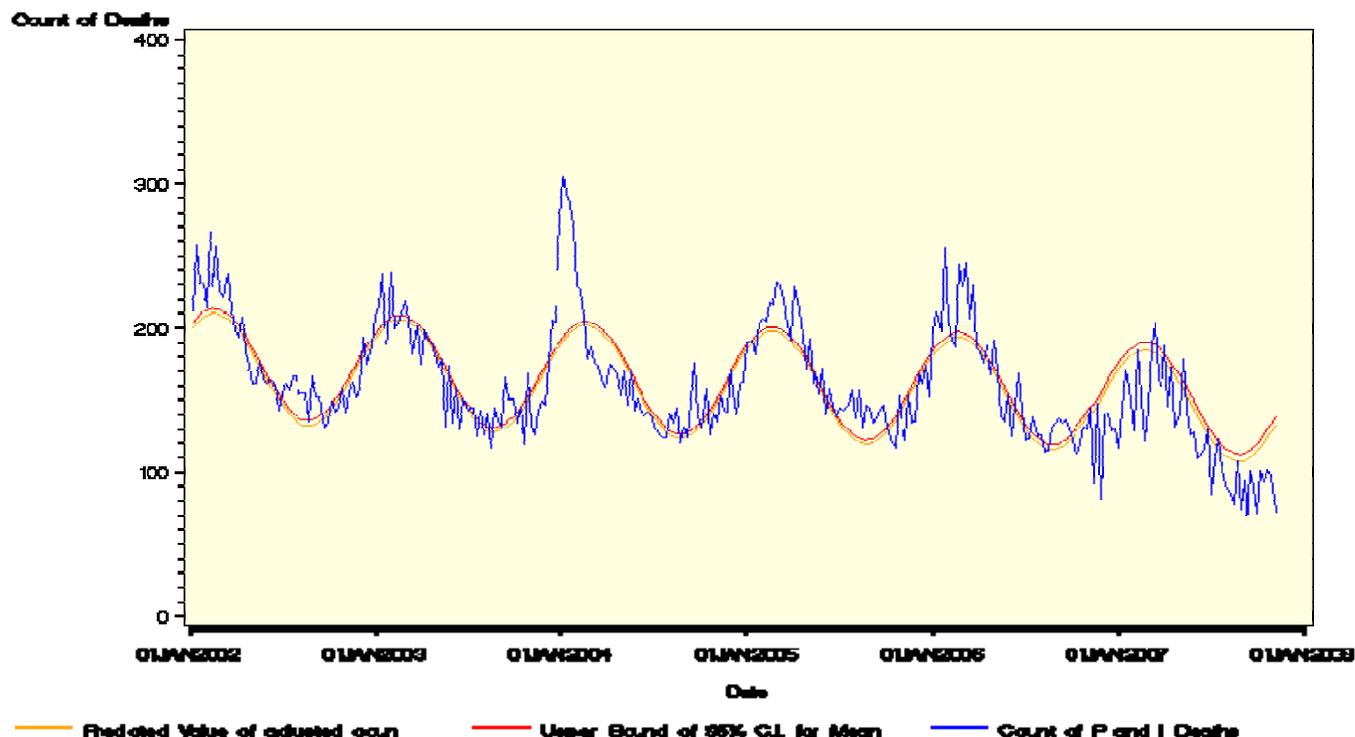
*FSPISN reporting is incomplete for this week (51%). Numbers may change as more reports are received.

**The 2006—07 threshold for moderate activity is calculated from the previous 3 years of FSPISN data. Only weeks with 10% or greater of laboratory specimens testing positive are included in the calculation. The threshold is only specific to 2007—08 data.

III. Florida Pneumonia and Influenza Mortality Surveillance

During week 51, 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 51 and observed mortality does not indicate that Florida has surpassed the epidemic threshold for this week**.

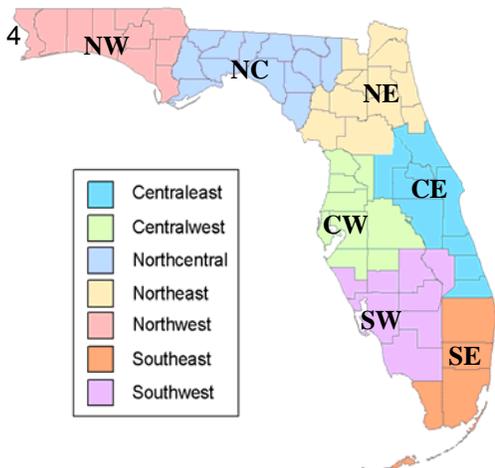
Pneumonia and Influenza Mortality for 23 Florida Counties, Counts Model



**Twenty-one of 23 counties are currently reporting P&I deaths. 100% participation is required for this graph to provide an accurate representation. We look forward to 100% participation in the near future.

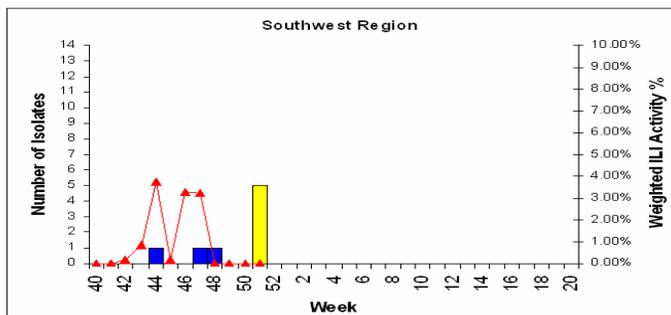
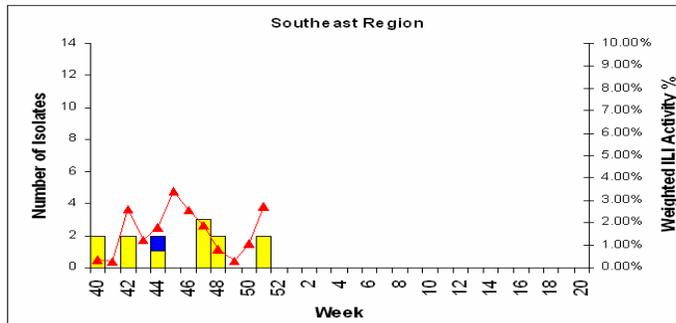
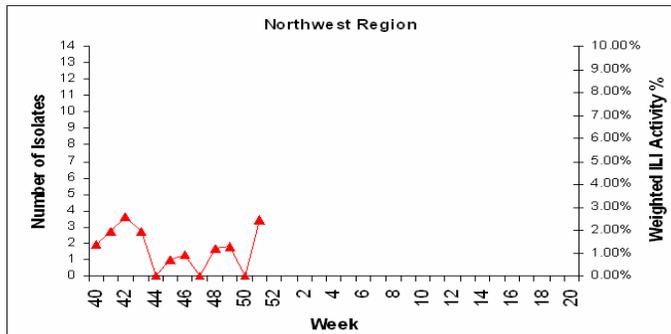
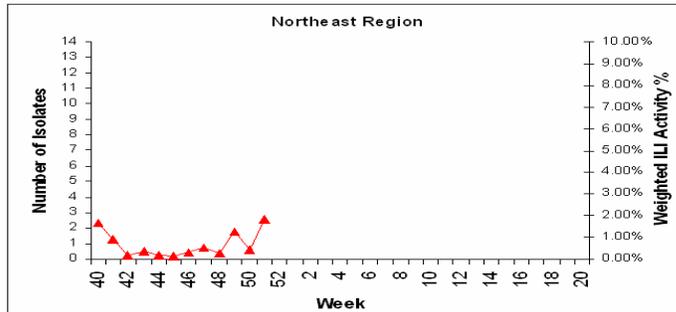
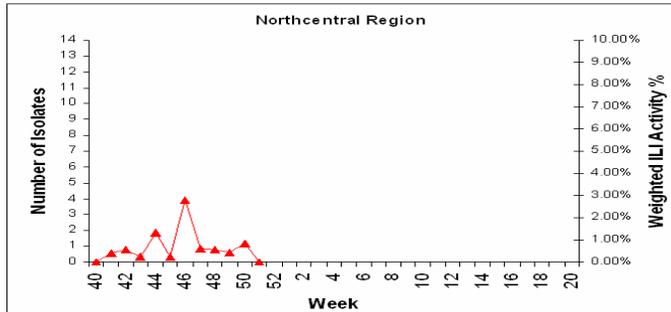
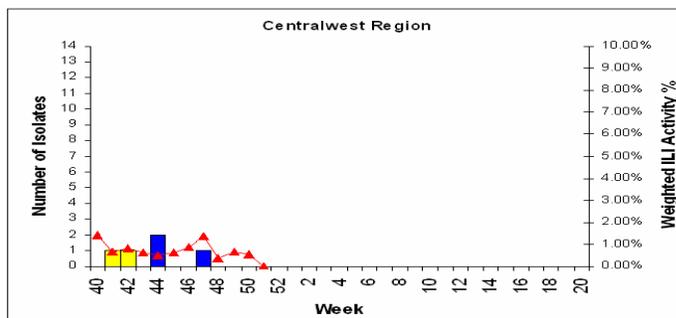
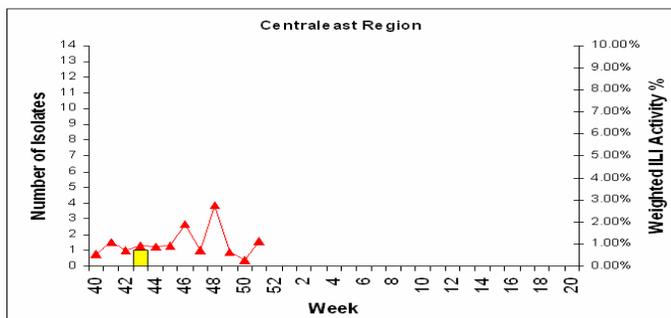
IV. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

Influenza Surveillance Regions



The table below shows the weighted ILI activity by region as reported by Florida sentinel physicians for the 2006-07 & 2007-08 seasons. The graphs below include ILI activity as reported by sentinel physicians and FDOH laboratory data.

| Week 51: FSPISN Weighted ILI Activity, by Region 2006-07 & 2007-08 Seasons | | |
|---|---------------|---------------|
| REGION | 2007-08 ILI % | 2006-07 ILI % |
| Centraleast | 1.12% | 2.90% |
| Centralwest | 0.00% | 3.09% |
| Northcentral | 0.00% | 20.00% |
| Northeast | 1.83% | 4.65% |
| Northwest | 2.43% | 8.00% |
| Southeast | 2.75% | 2.48% |
| Southwest | 0.00% | 3.75% |



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

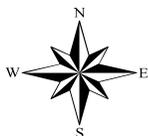
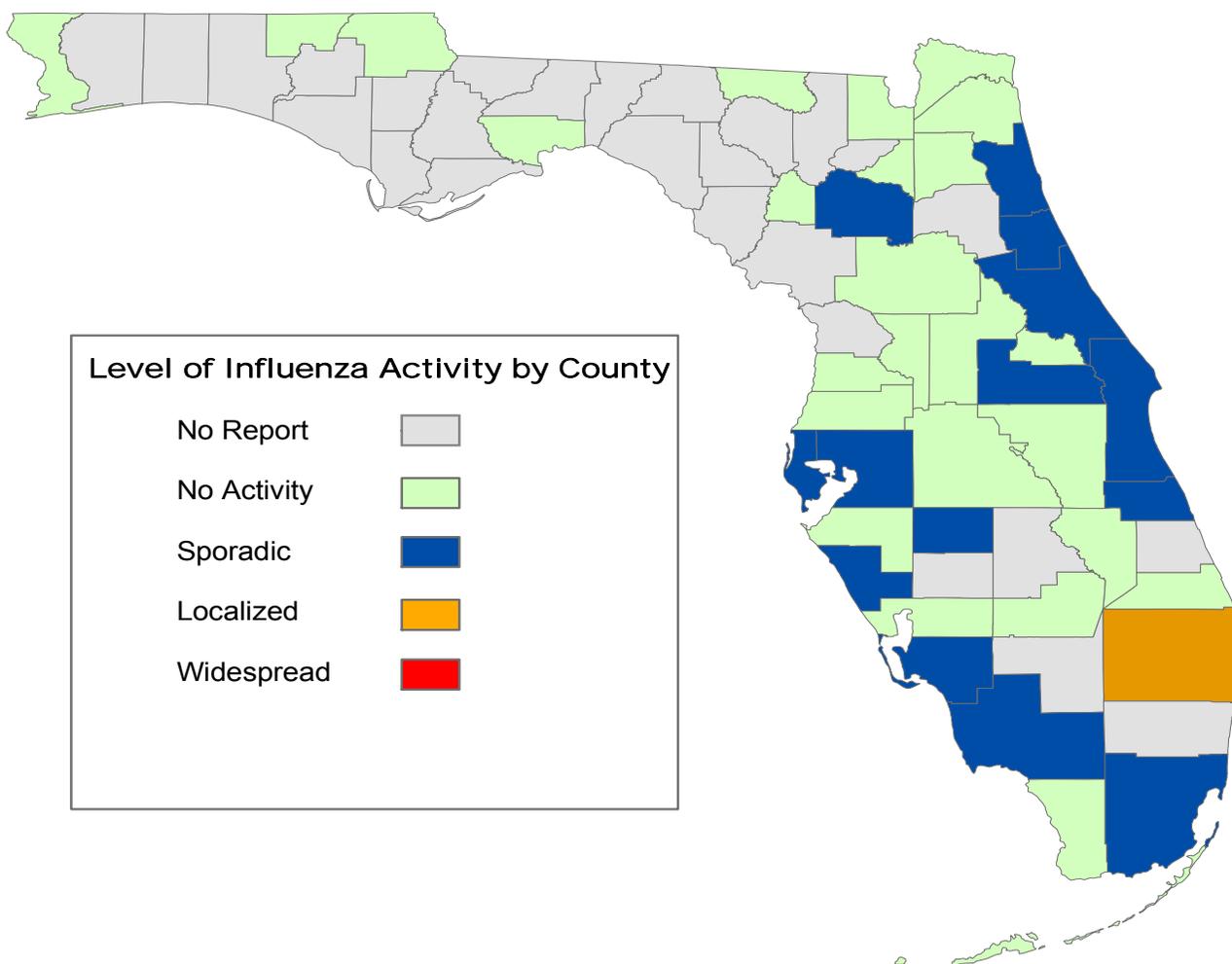
V. COUNTY INFLUENZA ACTIVITY MAP

During week 51, no counties reported widespread activity, one county reported localized activity (Palm Beach). Fourteen counties (Alachua, Brevard, Collier, Miami-Dade, Flagler, Hardee, Hillsborough, Indian River, Lee, Orange, Pinellas, St. Johns, Sarasota, Volusia) reported sporadic activity. Twenty-five counties reported no activity. Twenty-eight counties did not report.

Weekly County Influenza Activity

(Week ending December 22, 2007 - Week 51)

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 December 27, 2007

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 {
- An increase of ILI[§] activity detected by a *single* surveillance system* within the county. (An increase in 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.

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

On October 16, 2007 Duval CHD Epidemiology reported a pediatric patient hospitalized by Acute Disseminated Encephalomyelitis (ADEM) caused by recent Influenza A infection. Nasopharyngeal specimen was positive for Influenza A by EIA.

On October 10, 2007 Palm Beach CHD Epidemiology reported ILI activity in two long-term care facilities. In addition, a local laboratory hospital reported four positive cases of influenza A by rapid antigen testing.

On September 27, 2007 Miami-Dade CHD Epidemiology reported two university students with ILI symptoms and confirmed influenza A by PCR testing at the State Laboratory—Jacksonville.

Influenza and ILI outbreaks should be reported via EpiCom at: <https://www.epicom.fl.net> on the Influenza Forum.

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

As of the week ending December 1, 2007, no influenza-associated deaths among those <18 years of age and/ or post influenza infection encephalitis were reported in the state of Florida.

| Reportable Disease | # of Cases 07-08 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.

VIII. SUMMARY OF WORLDWIDE A/H5N1 INFLUENZA ACTIVITY

Update 66

12/27/2007

Since the recent outbreak activity began at the end of December 2003, there have been a total of 343 confirmed human cases and 212 deaths. Cases and deaths occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Cambodia 7 cases and 7 deaths; China 27 cases and 17 deaths; Djibouti 1 case 0 deaths; Egypt 39 cases and 16 deaths; Indonesia 116 cases and 94 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; Thailand 25 cases and 17 deaths; Turkey 12 cases and 4 deaths; and, Vietnam 100 cases and 46 deaths.

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

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/guidelines/wer8126/en/index.html

During week 50, Myanmar confirmed its first human case of H5N1 in a 7-year-old girl. Pakistan also had its first suspected human cases of H5N1 during week 50 in 8 people in the North West Frontier Province. One case from the Pakistan cluster was lab confirmed to be H5N1 during week 51.

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.

