

FLORIDA INFLUENZA SURVEILLANCE

Week 12: March 18th—March 24th 2007



Aimee Pragle, MS, Respiratory Disease Epidemiologist
 Matt Laidler, MA, MPH, Surveillance Epidemiologist
 Julian Everett, Influenza Surveillance Coordinator
 D'Juan Harris, MSP, GIS Coordinator
 Aaron Kite-Powell, MS, Florida EIS Officer



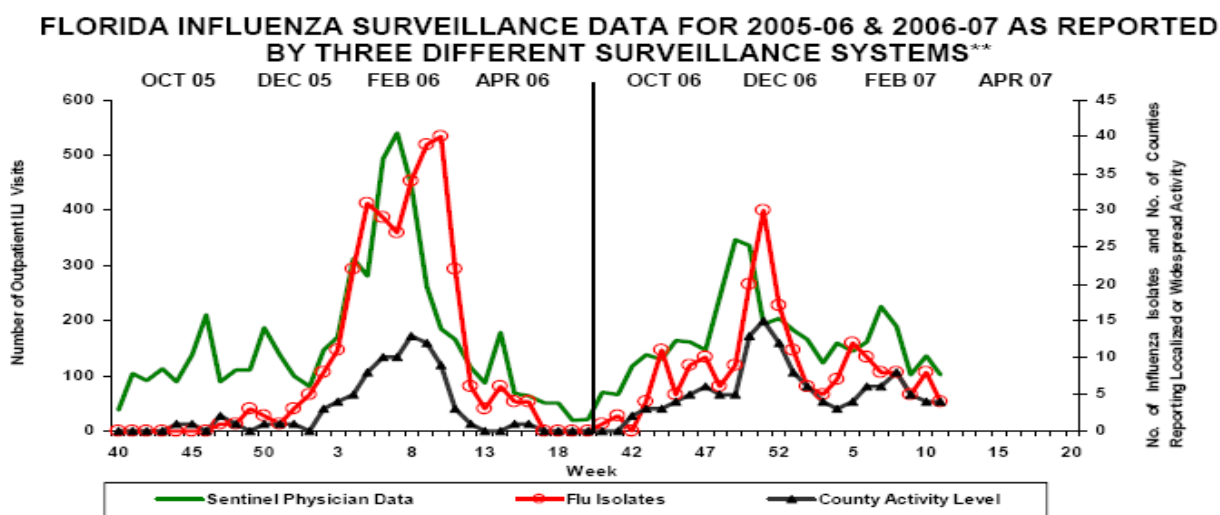
IN THIS ISSUE:

- I. Summary
- II. FSPISN Influenza-like Illness Statewide Graph
- III. Regression Prediction Model of Proportion of Influenza-Like Illness
- 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 the twenty-fifth weekly Florida influenza surveillance report for the 2006-07 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.

During week 12 statewide influenza activity was localized. The proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 0.52 percent and this is below the state threshold for moderate activity of 2.08 percent. Four of the 7 specimens (57%) tested by Bureau of Laboratories were positive for influenza. No counties reported widespread activity, 4 counties reported localized activity, 21 counties reported sporadic activity and 18 counties reported no activity. Twenty-four counties did not report. The graph below shows the progression of the 2005-06 & 2006-07 Florida influenza seasons as monitored by three** of five surveillance systems.



*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.

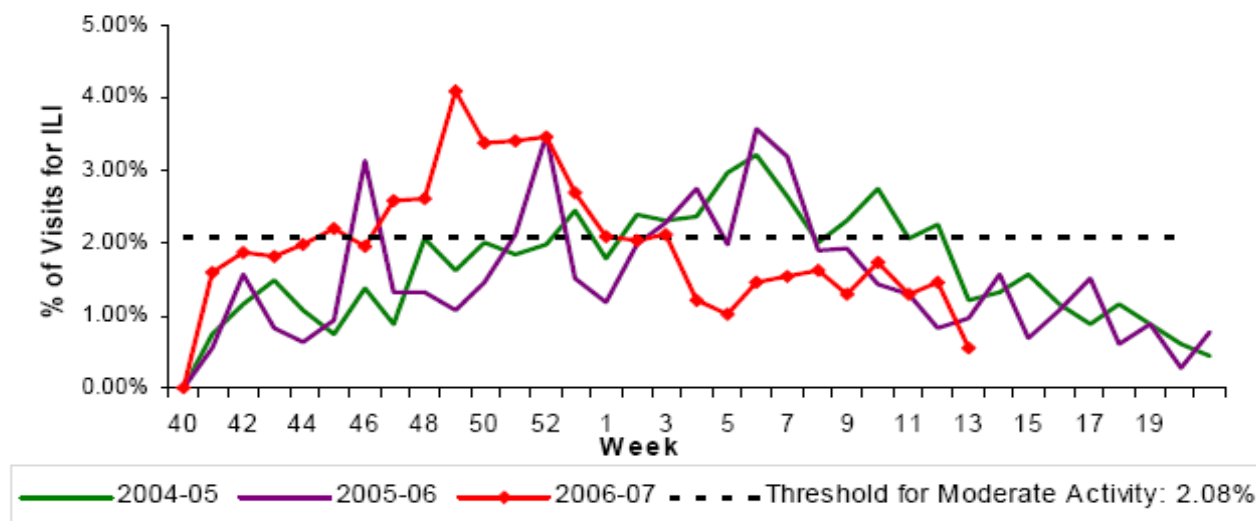
**1) FSPISN, 2) State Laboratory Viral Surveillance, and 3) County Activity Levels.

Find more information at: http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/index.htm

II. FSPISN INFLUENZA-LIKE ILLNESS STATEWIDE GRAPH

During week 12, 0.52%* of patient visits to Florida sentinel providers were due to ILI. This percentage is below the 2006—07 statewide threshold for moderate activity of 2.08%**. The percentage of visits ranged from 0.00% in the Southwest region to 1.29% in the Northcentral region. For the 2005-06 influenza season the statewide ILI activity percentage was 0.83% for week 12.

Percentage of Visits for Influenza-like Illness Reported by Sentinel Providers Statewide Summary 2006-07, 2005-06, and 2004-05



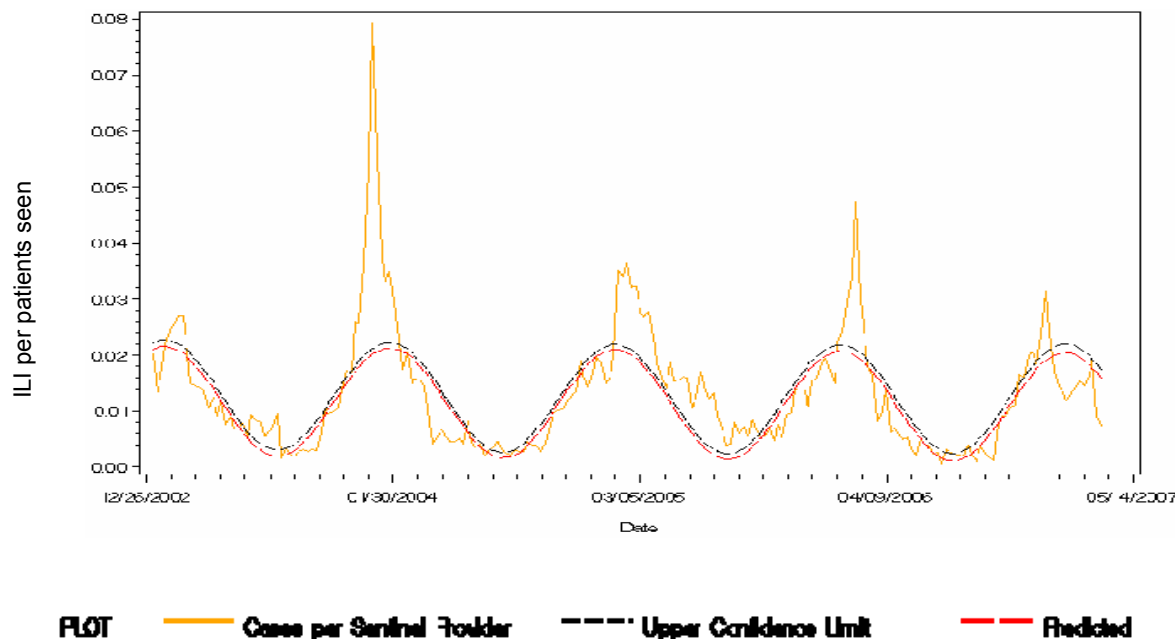
*FSPISN reporting is incomplete for this week (60%). Numbers may change as more reports are received.

**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 2006—07 data.

III. Regression Prediction Model of Proportion of Influenza-Like Illness

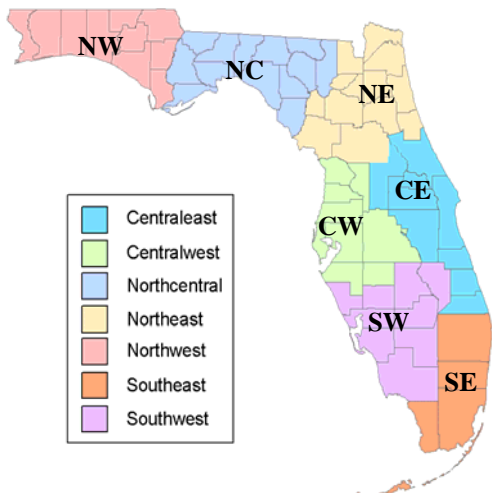
The Regression Prediction Model adjusts for the seasonality of influenza and indicates when the percent of ILI visits from reporting physician offices have exceeded a historical baseline epidemic threshold. During week 12, the total percentage of influenza-like illnesses (ILI) reported from 56 sentinel physicians was below the epidemic threshold.

Cyclic Regression Prediction Model of Proportion of Influenza-like Illness: 2002—2007



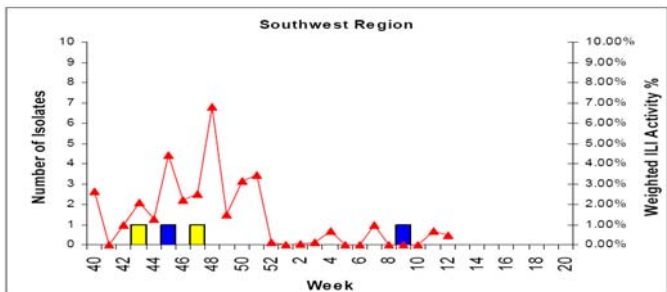
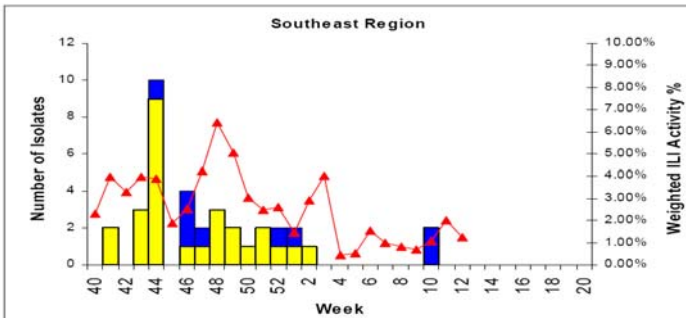
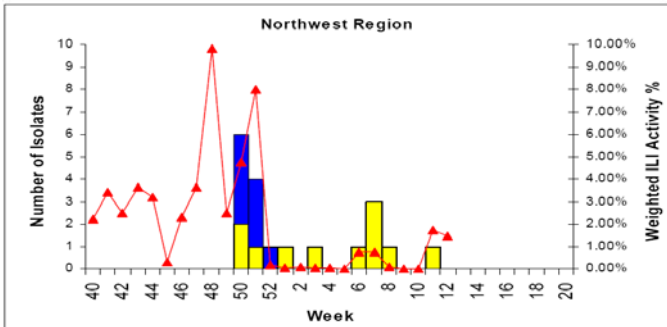
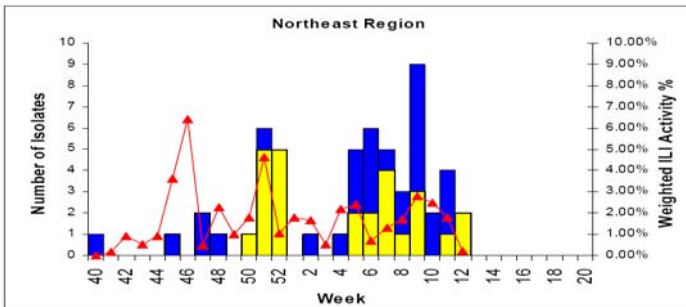
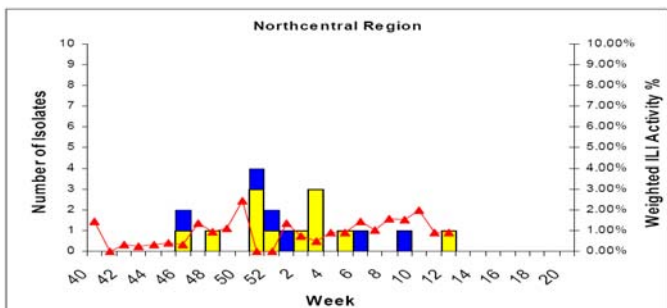
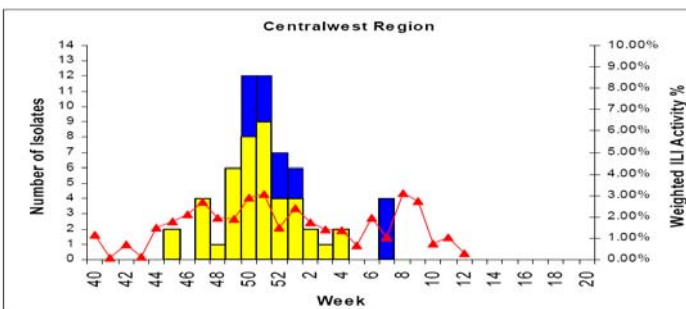
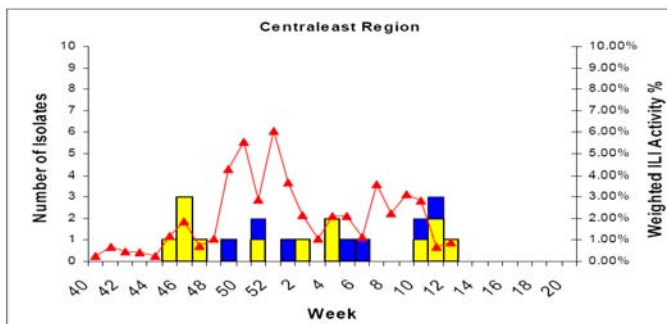
V. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

Influenza Surveillance Regions



The table below shows the weighted ILI activity by region as reported by Florida sentinel physicians for the 2005-06 & 2006-07 seasons. The graphs below include ILI activity as reported by sentinel physicians and FDOH laboratory data.

Week 12: FSPISN Weighted ILI Activity, by Region 2005-06 & 2006-07 Seasons		
REGION	2006-07 ILI %	2005-06 ILI %
Centraleast	0.88%	0.91%
Centralwest	0.58%	0.28%
Northcentral	1.29%	0.92%
Northeast	0.54%	0.24%
Northwest	0.69%	1.47%
Southeast	0.38%	1.22%
Southwest	0.00%	0.46%



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

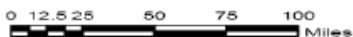
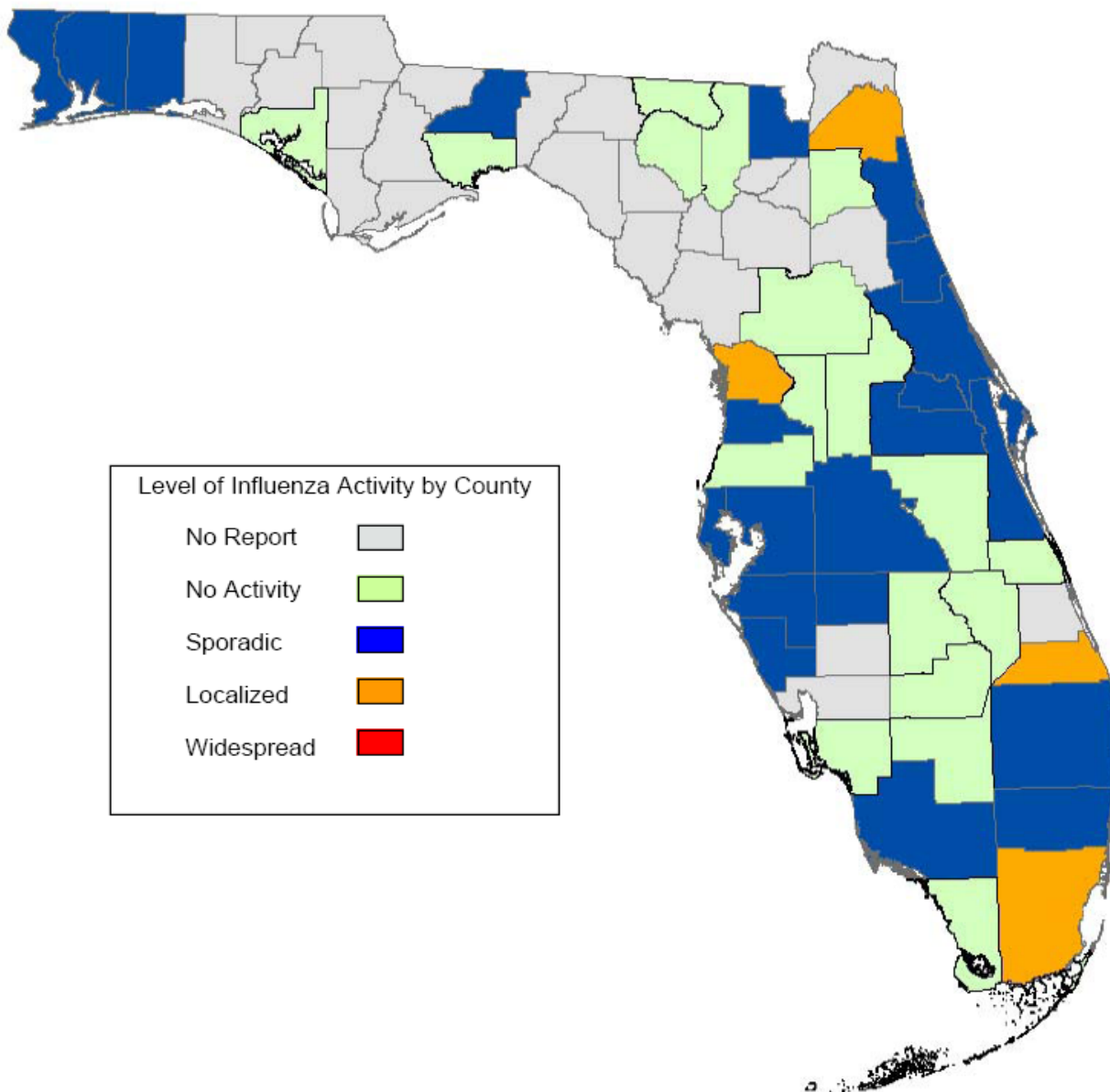
VI. COUNTY INFLUENZA ACTIVITY MAP

During week 12, no counties reported widespread activity. Localized activity was reported by 4 counties (Duval, Citrus, Miami-Dade, and Martin). Twenty-one counties reported sporadic activity (Baker, Brevard, Broward, Collier, Escambia, Flagler, Hardee, Hernando, Hillsborough, Leon, Manatee, Okaloosa, Orange, Palm Beach, Pinellas, Polk, St. Johns, Santa Rosa, Sarasota, Seminole, and Volusia). Eighteen counties reported no activity. Twenty-six counties did not report.

Weekly County Influenza Activity

(Week ending March 24, 2007—Week 12)

County influenza activity levels are reported by county health department epidemiologists



1:3724185



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 therefrom.
Map printed March 22, 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.

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

Posted on EpiCom February 2, 2007: The Volusia CHD Epidemiology unit reported an ILI outbreak at a long term care facility. Specimens are being sent to the state laboratory for testing.

Posted on EpiCom January 12, 2007: The Hamilton CHD Epidemiology unit reported several inmates with influenza-like illness at the Hamilton Correctional Facility. State laboratory testing confirmed influenza A.

Posted on EpiCom December 22, 2006: The Seminole CHD Epidemiology unit reported an increase in positive laboratory results from local hospitals. Public Health prevention measures resulted in a flu clinic.

Posted on EpiCom December 18, 2006: The Escambia CHD Epidemiology unit reported influenza-like illness in students in 28 Escambia County schools with onset of symptoms from 11/27 to 12/15.

Posted on EpiCom November 7, 2006: Miami-Dade and Broward CHD Epidemiology units reported an increase of influenza activity in children in Southeast Florida as detected from mid October.

A description of reported influenza or ILI outbreaks in community or institutional settings can be viewed via EpiCom at: <https://www.epicom.fl.net> Influenza and ILI outbreaks should be reported via EpiCom.

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

As of the week ending March 17, 2007, 1 influenza-associated deaths among those <18 years of age and/or post influenza infection encephalitis has been reported in the state of Florida.

Reportable Disease	# of Cases 06-07 Influenza Season
Influenza-associated deaths among those <18 years of age	1
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.

XI. SUMMARY OF WORLDWIDE A/H5N1 INFLUENZA ACTIVITY

Update 53

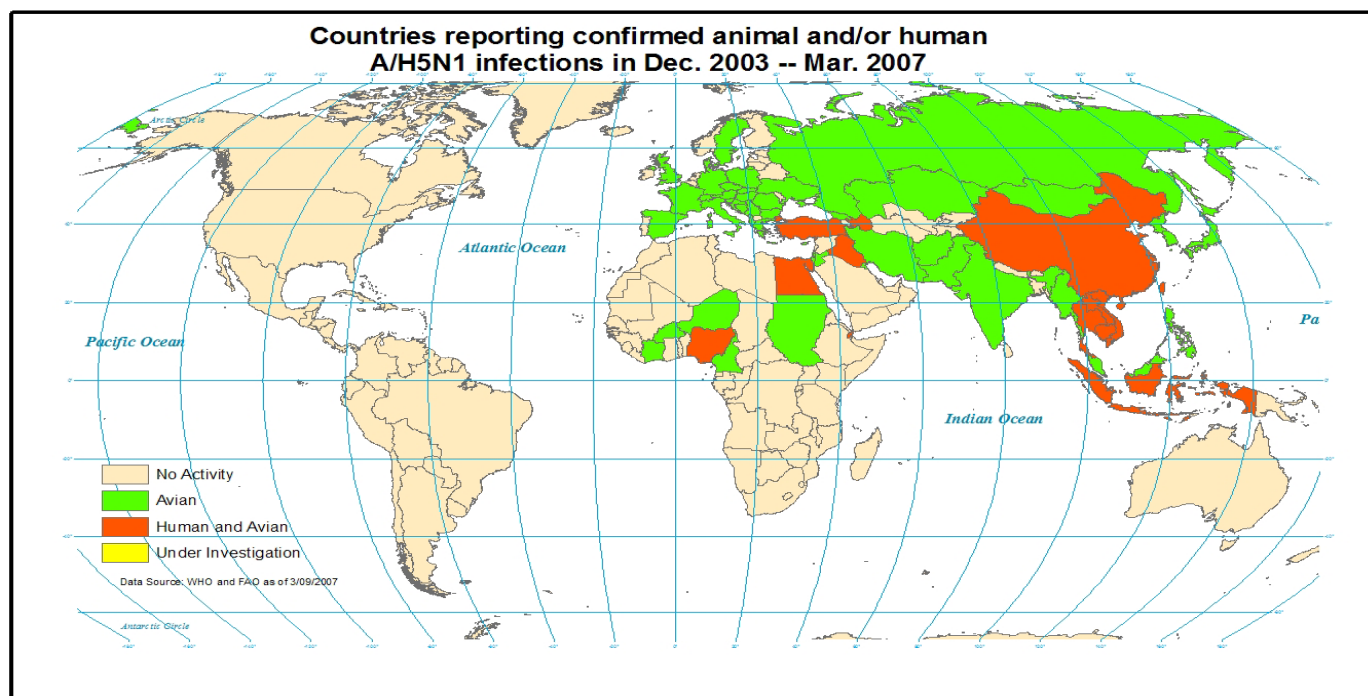
3/30/2007

Since the recent outbreak activity began at the end of December 2003, there have been a total of 285 confirmed human cases and 170 deaths*. Cases and deaths occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Cambodia 6 cases and 6 deaths; China 24 cases and 15 deaths; Djibouti 1 case 0 deaths; Egypt 29 cases and 13 deaths; Indonesia 81 cases and 63 deaths; Iraq 3 case and 2 deaths; Laos 2 case and 2 death; Nigeria 1 case and 1 death; Thailand 25 cases and 17 deaths; Turkey 12 cases and 4 deaths; and, Vietnam 93 cases and 42 deaths. Since the last update on 3/23/07 there has been one death in China and 3 cases in Egypt, The death in China is a 16 yo male who developed symptoms on 3/17/07 and was hospitalized on 3/20/07. He died on 3/27/07. The investigation of his source of exposure is ongoing. The 3 new case in Egypt are 1) a 6 yo who was admitted to the hospital on 03/25/07; 2) a 5 yo boy who was hospitalized on 03/25/07; and 3) a 3 yo girl who developed symptoms on 03/22/07 and was hospitalized on 03/24/07. All 3 cases had exposure to sick poultry.

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 an updated review of WHO-confirmed human cases of avian influenza A(H5N1) infection, from 11/25/2003 to 11/24/2006, please visit: http://www.who.int/csr/disease/avian_influenza/guidelines/wer8206/en/index.html

There have no reports of avian influenza spreading to new countries in the last few months. The complete list of countries reporting confirmed outbreaks of H5N1 in bird species since late December 2003 include Sudan, Spain, Djibouti, Ivory Coast, Czech Republic, Palestinian Autonomous Territories, United Kingdom, Burkina Faso, Jordan, Sweden, Israel, Afghanistan, Cameroon, Myanmar, Albania, Serbia and Montenegro, Hungary, Poland, Switzerland, Niger, Slovakia, France, Austria, Malaysia, Azerbaijan, India, Slovenia, Bosnia Herzegovina, Germany, Nigeria, Egypt, Bulgaria, Italy, Greece, Iran, Croatia, Cyprus, Ukraine, Turkey, Romania, Indonesia, China, Russia, Thailand, Vietnam, Kuwait (only one flamingo), Kazakhstan, Mongolia, Cambodia, Korea (Rep. of), and Japan. Countries with confirmed H5 (neuraminidase not determined yet) infection in birds include the Philippines, and Iraq.

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.



*** All confirmed results are from official sources – WHO, CDC, FAO. Information on suspect cases comes from a variety of sources including Epi-X, Promed, and the official sources mentioned above.**