

FLORIDA INFLUENZA SURVEILLANCE

Week 8: February 17th 2008—February 23rd 2008



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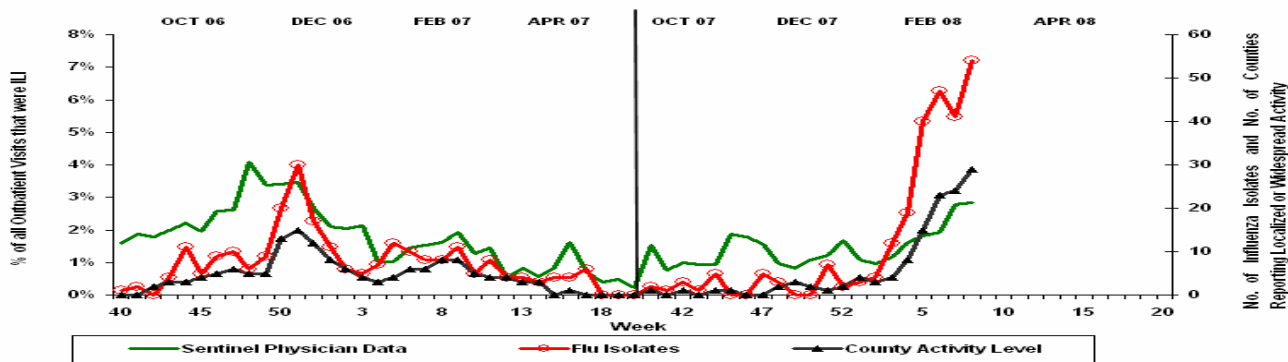
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I. SUMMARY

This is twenty-first 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. Regional activity has been reported for Florida for this reporting week (Week 8). There has been an increase in influenza activity in the Northwest, Northeast, and Southwest regions of Florida as well as recent lab confirmed cases. Because of this increase, Florida meets the CDC regional activity definition. The CDC definition for regional activity is: Outbreaks of influenza or increases in influenza-like illness (ILI) 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>.

During week 8 the proportion of patient visits for influenza-like illness (ILI) as reported by the Florida Sentinel Physician Influenza Surveillance Network was 2.84 percent. This is above the state threshold for moderate activity of 1.75 percent. Fifty-four of the 78 specimens tested by Bureau of Laboratories were positive for influenza. Eleven counties reported widespread activity and eighteen counties reported localized activity. Nineteen counties reported sporadic activity and 7 counties reported no activity. Thirteen 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.

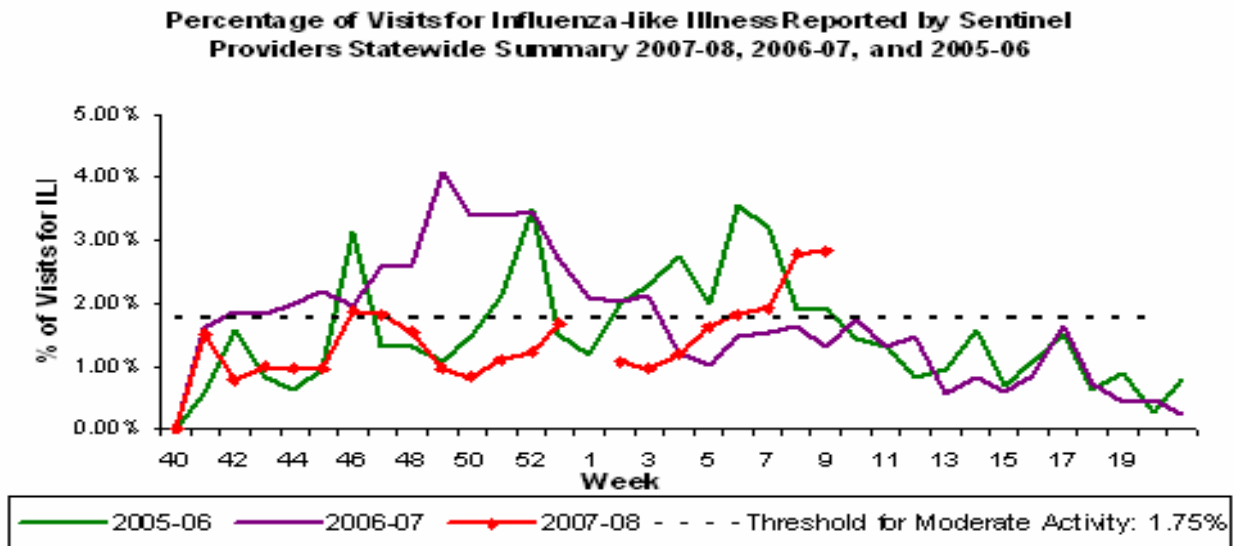


*The purposes of these surveillance systems are to determine when and where influenza activity is occurring, to identify circulating viruses, to detect changes in the circulating influenza viruses, to track patterns of influenza-associated morbidity and mortality and estimate the overall impact of influenza 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 8, 2.84%* of patient visits to Florida sentinel providers were due to ILI. This percentage is above the statewide baseline of 1.75%**. The percentage of visits ranged from 0.21% in the Centralwest region to 8.95% in the Northwest region. For the 2006-07 influenza season the statewide ILI activity percent 1.63% for week 8.



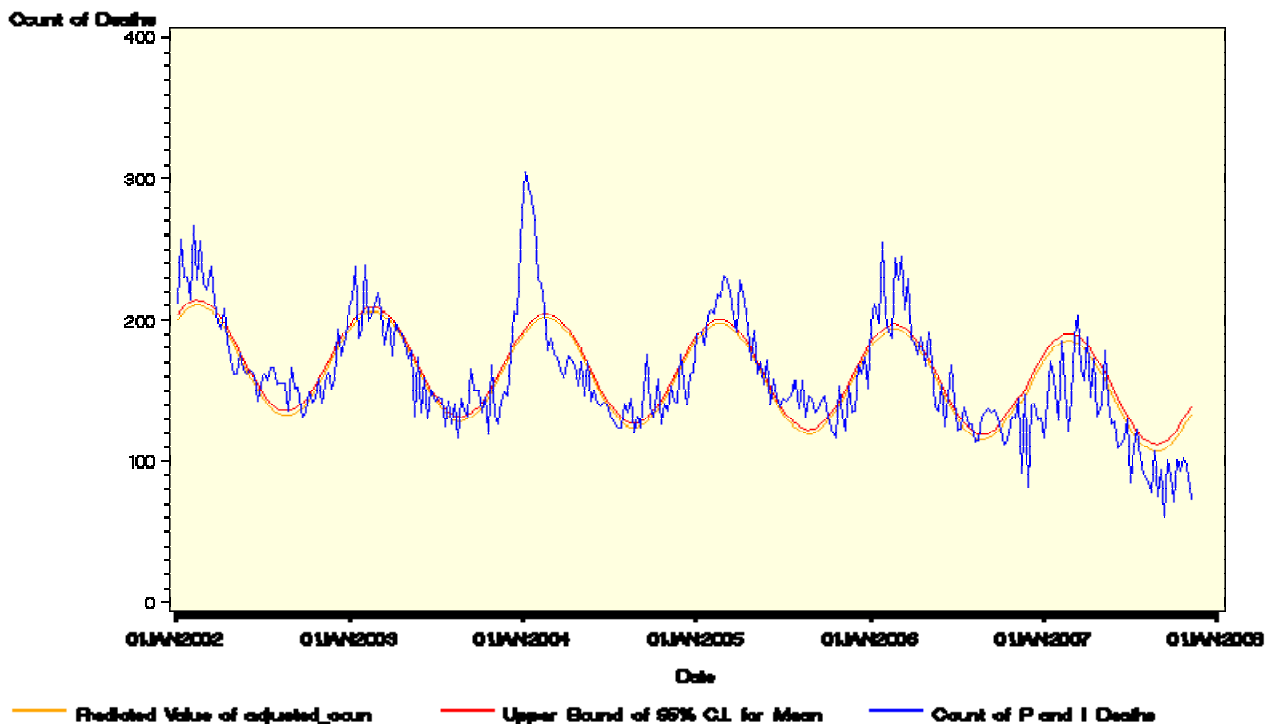
*FSPISN reporting is incomplete for this week (50%). Numbers may change as more reports are received.

**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 8, 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 8 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

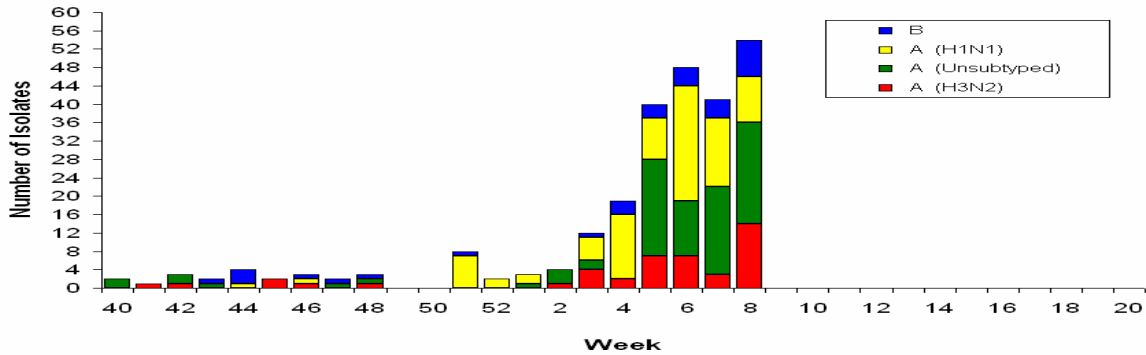


**Twenty-one of 23 counties reported P&I deaths to create this trend graph. 100% participation is required for this graph to provide an accurate representation. We look forward to 100% participation in the near future. The trend graph for 2008 will be coming out shortly, following the end of the year vital statistics data reconciliation.

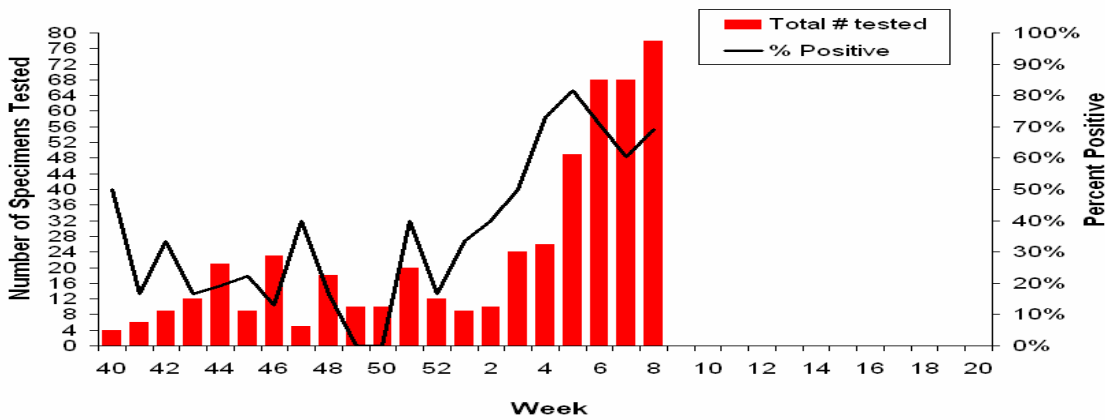
IV. FDOH LABORATORY SURVEILLANCE

Since September 30th, 2007, Florida Department of Health Laboratories have tested a total of 491 specimens for influenza viruses and 253 (52%) were positive. Among the 253 influenza viruses, 222 (88%) were influenza A viruses and 31 (12%) were influenza B viruses. Of the 253 influenza A viruses, 44 were A H3N2, 91 were H1N1, and 87 were A untyped. Of the 23 influenza B viruses 31 were Shanghai. All of the influenza B viruses have not been subtyped. *Laboratory information is preliminary and may change as additional results are received. Totals from previous weeks have been adjusted to reflect correct specimen numbers.*

FDOH State Laboratory Influenza Virus Isolates 2007-08



Number of Influenza Specimens Tested by FDOH State Laboratories, 2007-08

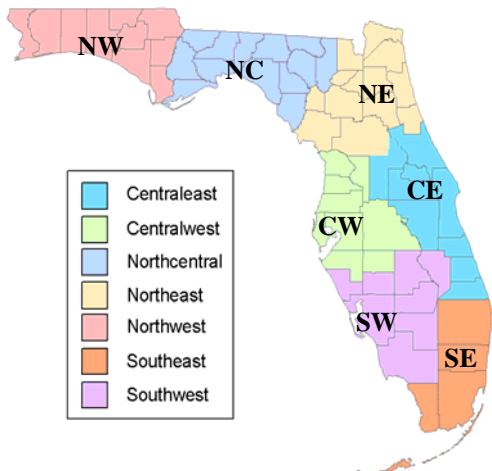


2007-08 Influenza Laboratory Isolates by Week and County

Week	Alachua	Brow	Broward	Clay	Charlotte	Miami-Dade	Dade	Duval	Escambia	Hardee	Hillsborough	Holmes	Indian River	Jackson	Leon	Ley	Marion	Ocechobee	Orange	Palm Beach	Polk	Santa Rosa	Sarasota	Seminole	St. John's	Washington
40						2																				
41											1															
42						2					1															
43																		1								
44						1	1				1															
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3			2					1					2				1		3				2			
4			1				8	1										1	3	1			2			
5			10				17	1									1	1				6		1		
6			8				5	3	2			1				2	2	4	5	1	1	5	1	1		1
7			2		1		7	1	7		1	2		2	2	1	4	1			2			2	1	1
8			3	4		2	2		1	3		1	5		6	1			1		1	6	5	2		1

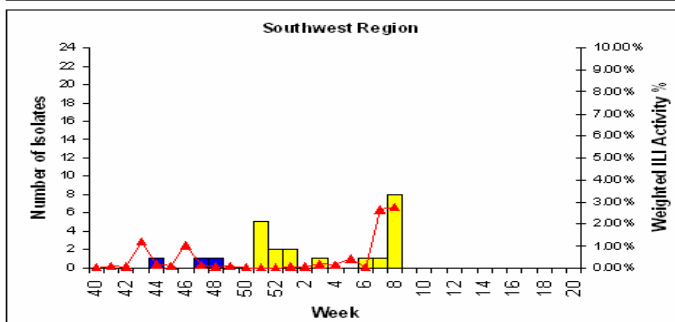
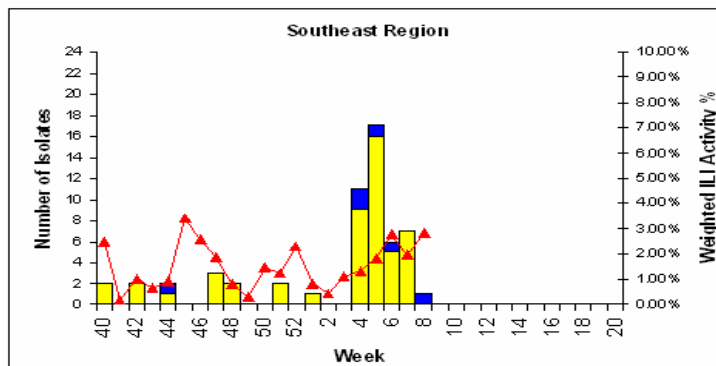
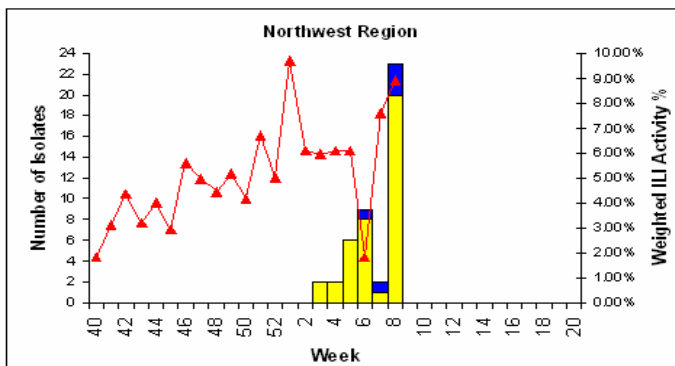
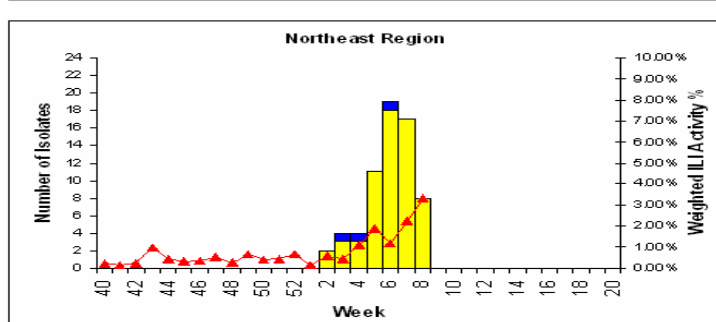
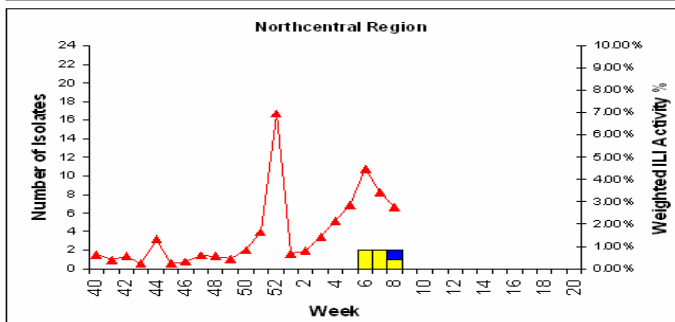
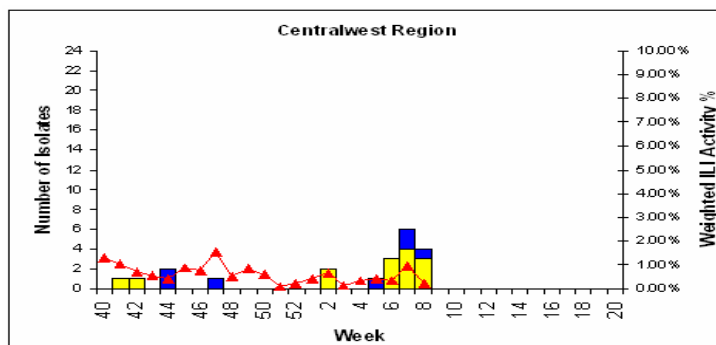
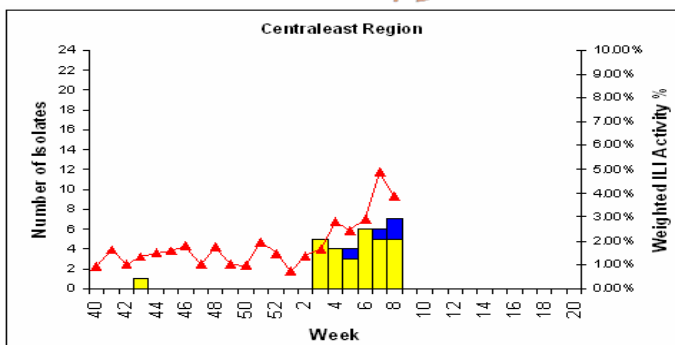
IV. LABORATORY AND INFLUENZA-LIKE ILLNESS (ILI) SURVEILLANCE BY REGION

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 7: FSPISN Weighted ILI Activity, by Region 2006-07 & 2007-08 Seasons		
REGION	2007-08 ILI %	2006-07 ILI %
Centraleast	3.86%	2.23%
Centralwest	0.22%	3.11%
Northcentral	2.78%	1.60%
Northeast	3.34%	1.71%
Northwest	8.95%	0.09%
Southeast	2.83%	0.81%
Southwest	2.75%	0.00%



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

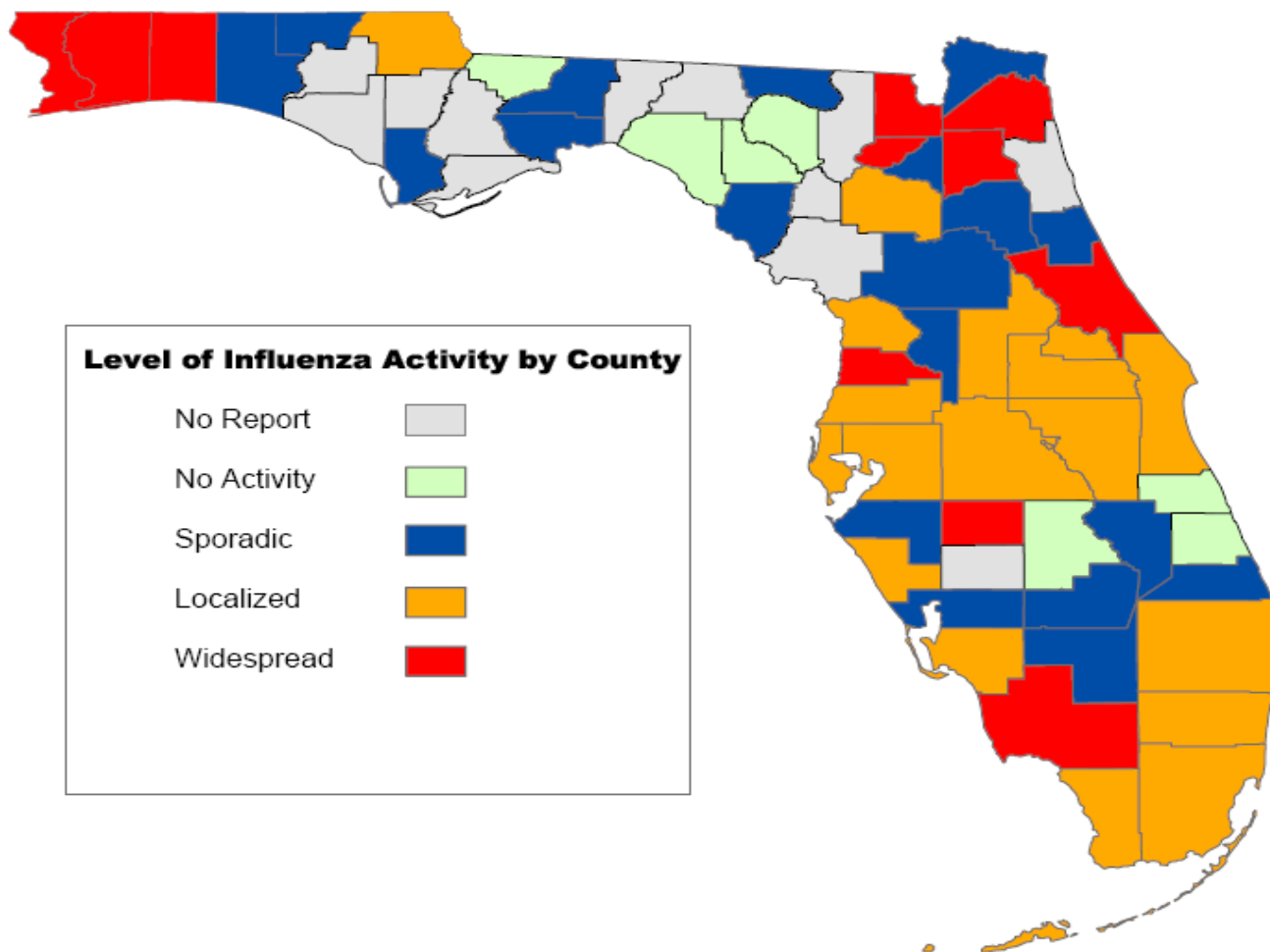
V. COUNTY INFLUENZA ACTIVITY MAP

During week 8, eleven counties reported widespread activity (Baker, Clay, Collier, Duval, Escambia, Hardee, Hernando, Okaloosa, Santa Rosa, Union, Volusia), Eighteen counties reported localized activity (Alachua, Brevard, Broward, Citrus, Miami-Dade, Hillsborough, Jackson, Lake, Lee, Monroe, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Sarasota, Seminole). Nineteen counties (Bradford, Charlotte, Dixie, Flagler, Glades, Gulf, Hamilton, Hendry, Holmes, Leon, Manatee, Marion, Martin, Nassau, Okeechobee, Putnam, Sumter, Wakulla, Walton) reported sporadic activity. Seven counties reported no activity. Thirteen counties did not report.

Weekly County Influenza Activity

(Week ending February 23, 2008 - Week 8)

County influenza activity levels are reported by county health department epidemiologists



Florida Department of Health
Bureau of Epidemiology

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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

During Week 8, influenza outbreaks occurred at three correctional facilities. They included Apalachee CI (Jackson County), Cross City CI (Dixie County), and Bay Correctional Facility (Bay County).

During Week 8, there was an influenza associated death in a 45-year -old individual from Hillsborough County. Specimens sent to the State Laboratory –Tampa tested positive for Influenza B.

On February 1, 2008 Sarasota CHD Epidemiology notified the Bureau of Epidemiology of a report from Infection Control at a local hospital of an influenza related death in a 40 day old infant. The cause of death was listed on the death certificate as myocarditis and renal failure. However, further review of the medical record indicated the child was positive for influenza A in addition to other comorbid conditions.

On January 28, 2008 Miami-Dade CHD Epidemiology reported an ILI outbreak in a local vocational school. Sixty-seven of 500 total students were identified as ill. Fifteen swabs were obtained from sick individuals and delivered to the Miami Branch Lab to be forwarded to Jacksonville for culture and further testing.

On December 28, 2007 DeSoto CHD Epidemiology reported an outbreak of ILI in a local correctional facility. Five out of the initial 30 individuals with ILI were positive for influenza A/H1N1 via PCR testing at the State Laboratory—Tampa.

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

As of the week ending February 23, 2008, there were no influenza-associated deaths among those <18 years or 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	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.

VIII. SUMMARY OF WORLDWIDE A/H5N1 INFLUENZA ACTIVITY

Update 02/28/2008

Since the recent outbreak activity began at the end of December 2003, there have been a total of 369 confirmed human cases and 234 deaths. Cases and deaths occurred in the following nations: Azerbaijan 8 cases and 5 deaths; Cambodia 7 cases and 7 deaths; China 30 cases and 20 deaths; Djibouti 1 case 0 deaths; Egypt 44 cases and 19 deaths; Indonesia 129 cases and 105 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 105 cases and 51 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 8, the Ministry of Health in Vietnam announced a fatal human case of H5N1 infection in a 23-year-old female from the Cam Khe district, Phu Tho province. The case had contact with sick and dead poultry prior to her illness. The Ministry of Health and Population of Egypt also announced a new human case of H5N1 in a 4-year old female from the El-Edwa district, Menea governorate.

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.

