# Florida Influenza Surveillance for the Week Ending January 3, 2004 (Week 53)

Angela Fix, MPH, Respiratory Disease Surveillance Epidemiologist Melissa Covey, Influenza Surveillance Coordinator

For full article, please visit our website at http://www.doh.state.fl.us/Disease\_ctrl/epi/htopics/flu/2004/index.htm

## Summary

Florida influenza-like illness (ILI) activity statewide decreased for the week ending January 3, 2004 (Week 53) compared to the previous weeks. Sixteen counties reported as having high ILI% activity for the week. Nine counties reported an increase in ILI activity during the week ending January 3, twelve counties reported a decrease and five counties remained level. Five counties did not have at least 50% of the sentinels reporting or did not report last week and therefore the change in activity could not be determined. Of the 11,762 patients seen by the sentinel providers during the week ending December 27, 596 were seen for influenza-like illnesses (an overall state ILI activity of 5.07%). The Florida ILI activity code reported to the Centers for Disease Control and Prevention (CDC) for the week ending January 3, 2004 was widespread. Widespread is defined as an increase in ILI activity in greater than or equal to half of all regions, along with recent laboratory evidence of influenza or recent institutional outbreaks within those regions.

# Enhanced Surveillance for Influenza 2003-2004 Season for Week 53

Influenza or ILI Outbreaks: Five counties reported outbreaks of influenza or influenza-like illness across the state. The previous week only one county reported any outbreaks.

<u>Pediatric Encephalopathies</u>: Two cases of laboratory confirmed influenza-associated encephalopathy have been reported to the Bureau of Epidemiology since December 21, 2003. Both patients passed away. <u>Pediatric Deaths</u>: Since December 21, 2003, there have been four laboratory confirmed cases of influenza-associated pediatric deaths in Florida reported to the Bureau of Epidemiology. Two of these were encephalopathy cases previously mentioned.

<u>Notes</u>: Some counties are reporting that school is back in session and so far, there have been no reports of increased absenteeism in those areas. A few counties reported an increase in influenza-like illness (ILI) activity in walk-in clinics and hospitals.

A statewide summary of the county enhanced surveillance reports has been made available on EpiCom.

# Influenza-Like Illness (ILI) Florida Summary

Seventy-six sentinels from 69 public clinics and private offices submitted reports for 30 counties during the week ending January 3, 2004 (Week 53). Counties with the highest percentage of patients with ILI were Okaloosa (2.06%, with 4 of 5 locations reporting); Walton (2.22%, with 1 of 1 reporting); Marion (2.51%, with 1 of 1 reporting); Pinellas (4.85%, with 6 of 8 reporting); Alachua (5.26%, with 1 of 2 reporting); Broward (5.60%, with 5 of 7 reporting); Osceola (5.88%, with 2 of 2 reporting); Lake (6.77%, with 2 of 2 reporting); Palm Beach (8.04%, with 4 of 5 reporting); Brevard (8.67%, with 3 of 3 reporting); Indian River (9.41%, with 3 of 3 reporting); Orange (11.42%, with 4 of 9 reporting); Polk (12.76%, with 3 of 4 reporting); Monroe (12.81%, with 1 of 1 reporting); Leon (17.04%, with 2 of 2 reporting); Putnam (39.30%, with 2 of 1 reporting). Eight counties reported a low percentage of patients with ILI, and six counties reported no cases of ILI. A breakdown of ILI% reported for week ending January 3, 2004 by county is listed in Table 1.

Table 1: Influenza-Like Illness Reporting by County for Week Ending 1/03/04 (Week 53)   Report Date: January 12, 2003											
		Enrolled as of Reporting for 1/2/04 Week 53				ILI% Reported	ILI% Reported for	ILI% Reported for			
County	Change in ILI Activity	Sentinels recruited	From Offices	Sentinels reporting	From Offices	Participation for Week 53	for Week 53 (Current)	Week 52 (Updated)	Week 51 (Updated)		
Alachua	Level	2	2	1	2	50%	5.26%	5.45%	1.89%		
Brevard	Decreasing	3	3	3	3	100%	8.67%	18.75%	8.90%		
Broward	Increasing	7	7	5	7	71%	5.60%	4.00%	6.29%		
Charlotte	Level	1	1	1	1	100%	0.00%	0.00%	0.00%		
Citrus	Level	1	1	1	1	100%	0.28%	0.00%	0.62%		
Collier	Decreasing	2	2	1	2	50%	0.00%	1.72%	3.36%		
Duval	Decreasing	7	7	4	7	57%	1.41%	6.22%	8.44%		

Hillsborough	Decreasing	6	6	4	6	67%	0.77%	1.36%	2.51%
Indian River		8	3	3	3	38%	9.41%	22.47%	14.50%
Lake	Increasing	2	2	2	2	100%	6.77%	3.05%	5.83%
Lee	Increasing	2	2	1	2	50%	1.59%	0.00%	1.12%
Leon	Increasing	2	2	2	2	100%	17.04%	15.79%	10.74%
Marion	Level	1	1	1	1	100%	2.51%	2.73%	1.17%
Martin	Decreasing	1	1	1	1	100%	0.00%	2.48%	1.22%
Miami-Dade	Decreasing	6	6	5	6	83%	1.98%	3.47%	1.82%
Monroe	Increasing	1	1	1	1	100%	12.81%	7.96%	13.99%
Okaloosa	Decreasing	5	5	4	5	80%	2.06%	2.48%	2.79%
Orange		12	9	4	9	33%	11.42%	5.71%	6.88%
Osceola	Increasing	2	2	2	2	100%	5.88%	0.00%	1.75%
Palm Beach	Increasing	5	5	4	5	80%	8.04%	5.69%	13.66%
Pasco	Decreasing	1	1	1	1	100%	0.00%	22.22%	11.11%
Pinellas	Increasing	8	8	6	8	75%	4.85%	2.15%	2.82%
Polk		7	4	3	4	43%	12.76%	14.97%	13.33%
Putnam	Decreasing	2	1	2	1	100%	39.30%	48.98%	8.16%
Santa Rosa		1	1	1	1	100%	0.73%		3.45%
Sarasota		1	1			0%		15.07%	1.59%
Seminole	Decreasing	2	2	1	2	50%	1.02%	10.22%	5.87%
St. Johns	Decreasing	2	2	1	2	50%	0.00%	1.74%	1.28%
St. Lucie	Level	1	1	1	1	100%	0.00%	0.00%	0.00%
Volusia	Increasing	2	2	2	2	100%	1.50%	1.24%	0.39%
Walton	Decreasing	1	1	1	1	100%	2.22%	6.12%	0.00%

## Laboratory Specimen Testing in Florida

Thirty-five of the 74 specimens received by the Jacksonville Central and Tampa Branch laboratories for influenza isolate testing during the week ending January 3, 2004 (Week 53) were found positive for influenza A. Of these 35 viruses, 27 were found positive for A (H3N2), and 8 were found positive for Influenza A, unknown. These viruses came from Alachua, Brevard, Broward, Dade, Duval, Hillsborough, Indian River, Leon, Monroe, Osceola, Palm Beach, Pinellas, Polk, Putnam, St Johns, and Volusia, counties. Culture testing continues on 5 of the unknown 8 influenza A specimens received during week 53 that were found positive for influenza A through PCR testing. The CDC has returned results from 9 specimens collected from Florida during October and November. All were positive for influenza A (H3N2): 5 were similar antigenically to the vaccine strain A/Panama/2007/99 (H3N2), and 4 were similar to the drift variant, A/Fujian/411/2002 (H3N2).

From September 28, 2003 to January 10, 2004, the Florida laboratories tested a total of 483 specimens and found 153 positive for influenza A (H3N2) and 55 that were unknown A or had culture results pending. The remaining specimens were negative for influenza. Table 2 details isolates found since September 28, 2003 by county.

Table 2. Isolates by County Found During 2003-2004 Surveillance										
Report Date: January 12, 2003										
Number of previously reported positive specimens (positive specimens, Week 53)										
County	Type A - H3N2	Type A - H1N1	Type A - Unknown	Type A - Unknown; Culture Pending	Туре В					
Alachua	9(1)	0	4	0	0					
Brevard	(1)	0	0	0	0					
Broward	3	0	0	5(1)	0					
Citrus	4	0	0	3	0					
Collier	3	0	0	0	0					
Dade	1	0	(1)	0	0					
Duval	20(4)	0	8	0	0					
Hillsborough	10	0	0	3(3)	0					
Indian River	17(6)	0	7(1)	0	0					
Lake	1	0	0	0	0					
Lee	2	0	0	0	0					
Leon	18(1)	0	3	0	0					

Marion	1	0	0	0	0
Monroe	(2)	0	0	0	0
Okaloosa	5	0	0	0	0
Orange	5	0	3	1	0
Osceola	1(1)	0	0	0	0
Palm Beach	7	0	0	2(1)	0
Pasco	3	0	0	0	0
Pinellas	5(2)	0	0	0	0
Polk	17(1)	0	0	4	0
Putnam	(3)	0	0	0	0
Sarasota	8	0	0	0	0
St Johns	7(3)	0	1(1)	0	0
Volusia	1(2)	0	1	0	0
Wakulla	1	0	0	1	0

## Rapid Testing Performed by Private Laboratories in Florida

Reports received from non-sentinel, private hospitals and private laboratories since September 28, 2003 are summarized in Table 3.

Table 3. Rapid Influenza Tests by County During 2003-2004   Report Date: January 12, 2003									
County	Rapid Tests performed	Negative Tests	Positive for A or B	Positive for A	Positive for B				
Alachua	Unknown	0	5	0	0				
Bay	425	258	73	95	1				
Brevard	675	495	0	189	0				
Broward	7	6	0	1	0				
Clay	Unknown	0	1	0	0				
Collier	Unknown	0	362	0	0				
Marion	2	1	1	0	0				
Miami-Dade	107	60	47	0	0				
Orange	Unknown		12	0	0				
Pinellas	3	1	2	0	0				
Sarasota	Unknown		44	42	1				

## National Influenza Surveillance

This section summarizes the weekly influenza report from the Centers for Disease Control and Prevention. More detailed information can be found at their website: http://www.cdc.gov/ncidod/diseases/flu/weekly.htm and at http://www.cdc.gov/ncidod/diseases/flu/vacfacts.htm#01

## Influenza-Like Illness Report for the Week ending January 3, 2004

The proportion of patient visits to sentinel physicians for influenza-like illness (ILI) was 6.2% nationwide. This is above the national baseline of 2.5%. The percentage of patient visits for ILI decreased in all nine surveillance regions. On a regional level, the percentage of visits for ILI ranged from 8.3% in the West South Central region to 3.4% in the Mountain region. The South Atlantic region, in which Florida is located, reported 10.4% of patient visits were due to ILI. Due to wide variability in regional level data, it is not appropriate to apply the national baseline to regional level data. National percentage and regional percentages of patient visits for ILI are weighted on the basis of state population.

## **Antigenic Characterization**

CDC has antigenically characterized two influenza A (H1) viruses, 454 influenza A (H3N2) viruses, and five influenza B viruses that were submitted by U.S. laboratories since October 1, 2003. The influenza A (H1) viruses were similar antigentically to the vaccine strain A/New Caledonia/20/99. Of the 454 A (H3N2) viruses characterized, 98 (21.6%) were similar antigenically to the vaccine strain A/Panama/2007/99 (H3N2), and 356 (78.4%) were similar to the drift variant, A/Fujian/411/2002 (H3N2). Four of the influenza B viruses were similar to B/Sichuan/379/99 and one influenza B virus was similar to B/Hong Kong/330/2001.

Influenza drift variant, A/Fujian/411/2002 (H3N2), found in the United States and Europe The influenza A drift variant, A/Fujian/411/2002 (H3N2) predominated the Australian and New Zealand outbreaks that peaked in mid-to-late August 2003, and has been detected in many countries in the Northern Hemisphere, including the United States. The CDC expects the current U.S. vaccine will offer some protective immunity against the A/Fujian/411/2002-like viruses because these viruses are related to the vaccine strain, A/Panama/2007/99. Antibodies produced against the vaccine virus cross-react with A/Fujian/411/2002-like viruses, but at a lower level.

# U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) Laboratories Report

Since September 28, 2003, 16,174 (28.0%) of the 57,831 specimens tested for influenza viruses were positive. Three thousand nine hundred twenty-six Influenza A (H3N2) viruses, one Influenza A (H1) virus and 109 influenza B viruses have been identified. Weekly ratios rather than proportions are presented in the 2003-2004 Summary By Region because specimens reported positive for influenza virus each week may include specimens submitted for testing during an earlier week.

	Table 4 WH	ILI Reporting:					
Region	Total Specimens	AH1N1	AH3N2	A-Unk	в	Ratio Pos.	Weighted ILI%
New England Region	1,760	0	125	460	1	0.333	2.192
Mid-Atlantic Region	4,229	0	61	541	2	0.143	2.648
East North Central Region	3,125	0	677	222	2	0.288	4.262
West North Central Region	6,510	0	116	1,227	1	0.206	3.546
South Atlantic Region	12,102	1	924	3,154	50	0.341	3.356
East South Central Region	2,500	0	167	175	8	.0140	3.507
West South Central Region	12,011	0	928	3,097	7	.0336	7.401
Mountain Region	9,692	0	525	2,717	35	.0338	3.305
Pacific Region	5,902	0	403	545	3	.0161	4.732

# **122 US Cities Vital Statistics Mortality Report**

The percentage of all deaths due to pneumonia and influenza was 9.4. This percentage is at the epidemic threshold of 8.0 for the week ending January 03, 2004.

## International Influenza Activity

## World Health Organization Communicable Disease Surveillance and Response

WHO reported in its January 7, 2004 Update 6 continued increased in influenza activity associated with A/Fujian/411/2002-like viruses in some countries in central and eastern Europe, sporadic influenza A (H3N2) and B in Algeria and Madagascar, Hong Kong Special Administrative Region of China, Japan and Thailand. Influenza activity declined Belgium, France, Norway, Portugal, Spain and the United Kingdom (western European Countries) and Canada.

The December 23, 2003 outbreak of avian influenza A (H5N1) in poultry at a farm in the Republic of Korea has resulted in the detection of infected chickens at 14 farms in 4 provinces and 18 additional farms are under surveillance.

WHO influenza updates and reports to date have also included the following items:

 WHO reported on January 5, 2004 the first laboratory confirmed case of SARS in a 32-year-old man in the southern Chinese province of Guangdong. The patient was hospitalized on December 20, 2003, four days after the onset of symptoms. WHO reports follow-up on all persons in contact with the patient indicates contacts are free of symptoms and most have been released from quarantine. Surveillance has been intensified in Guangdong and other provinces. For more information about this report please visit the WHO website at http://www.who.int/csr/don/2004\_01\_05/en/

- On December 10, 2003 WHO reported a case of avian influenza A (H9N2) in Hong Kong Special Administrative Region of China. The patient, a five-year old boy, was hospitalized and has recovered. The only other reported case of influenza A (H9N2) virus in Hong Kong occurred in 1999.
- An Influenza A (H1) outbreak that had begun in Iceland during early October had ended by mid-November.

For more information about the WHO Communicable Disease Surveillance and Response Updates, please visit their website at http://www.who.int/csr/en/

### FluWatch Report from the Canadian Centre for Infectious Disease Prevention and Control

For more information about the FluWatch report, please visit their website at http://www.hc-sc.gc.ca/pphb-dgspsp/fluwatch/index.html

### Report from the European Influenza Surveillance Scheme (EISS)

For more information about the EISS report, please visit their website at http://dev.eiss.org/cgifiles/bulletin\_v2.cgi.

### WHO Collaborating Centre for Reference and Research on Influenza, Melbourne Australia

Australia's winter months are from May to October. One of Australia's biggest influenza seasons since 1998 peaked from mid to late August 2003, and by October cases of influenza had generally subsided. Influenza A (H3) viruses were cited as the primary cause of outbreaks, with little A (H1) or B viruses isolated during the season. For more information about Australian influenza, please visit the Melbourne, Australia Branch website at http://www.influenzacentre.org/ (specific article can be found at http://www.influenzacentre.org/flunews.htm#subsiding).

### 2002-2003 Influenza Surveillance Summaries

An international summary of the 2002-2003 influenza surveillance season (October-September) can be found on page 303 in the November 7, 2003 edition of the WHO's Weekly Epidemiological Record (Vol. 78) at http://www.who.int/wer/2003/wer7845/en/

WHO Recommended composition of influenza virus vaccines for use in the 2004 influenza season http://www.who.int/csr/disease/influenza/recommendations2004/en/

\* Reporting is incomplete for this week. Numbers may change as more reports are received