Florida Influenza Surveillance for the Week Ending January 24, 2004 (Week 03)

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

Summary

Florida influenza-like illness (ILI) activity slightly increased across the state during the week ending January 24, 2004 (Week 03) compared to the previous weeks. Thirteen counties reported as having high ILI% activity for the week, ranging from 2.15% to 65.71%. However, not all sentinels have reported at the time this summary was written (88% reporting as of February 3, 2004). Eight counties have reported an increase in ILI activity from the previous week, eleven counties reported a decrease and eleven counties remained level. Three counties did not have at least 50% of the sentinels reporting or did not report the previous week and therefore the change in activity could not be determined. Of the 16,850 patients seen by the Florida sentinel providers during the week ending January 24, 634 were seen for influenza-like illnesses (an overall state ILI activity of 3.76%). The Florida ILI activity code reported to the Centers for Disease Control and Prevention (CDC) for the week ending January 24, 2004 was regional.

Across the nation, regional activity was reported in 20 states, including Florida, for the week ending January 24, 2004. Only one state, Delaware, reported widespread activity. Influenza activity reported by the Sentinel Physicians decreased in most regions across the country. The percentage of deaths due to influenza and pneumonia also decreased for the nation, but is still above the epidemic threshold

CDC and WHO reported as of February 2, fourteen laboratory confirmed cases of avian Influenza A (H5N1) infections in humans in Vietnam and Thailand. Ten cases were from Vietnam and four were from Thailand. Eleven of the fourteen cases have been fatal. Health officials believe those individuals who contracted the virus became infected through contact with the droppings of, or direct contact with, the infected birds. At this time the WHO is not ruling out the possibility of person-to-person transmission of the avian virus in Vietnam; however, there is still no confirmatory evidence this type of transmission. The Bureau of Epidemiology, in accordance of CDC guidelines, has established enhanced surveillance for avian influenza in the state of Florida, as well as testing protocols for individuals suspected of being infected with the avian Influenza A virus (H5N1). Physicians and health care workers are asked to report any suspected cases of avian influenza immediately to the local county health department. The county health department have been instructed to contacted the Bureau of Epidemiology, Dr. Joann Schulte, for immediate triage of all suspected avian influenza cases. CDC and WHO are still working in collaboration to develop a vaccine against the H5N1 strain as well as providing states and other countries with testing materials to identify the H5 virus. Currently the CDC and WHO laboratories are the only facilities capable of detecting the H5 strain.

Enhanced Surveillance for Influenza 2003-2004 Season for Week 03

<u>Influenza or ILI Outbreaks</u>: One county reported a new confirmed outbreak of influenza-like illness this week. There were no reports of continuing outbreaks from the previous weeks.

<u>Pediatric Deaths and Encephalopathies</u>: One influenza-associated death in an 11 year old was reported to the Bureau of Epidemiology on January 20, 2004. The child had a history of autism and developmental delay.

<u>Notes</u>: More counties have reported a decrease in influenza-like illness (ILI) activity in the hospitals and ERs compared to the previous week. There have been no reports of increased absenteeism.

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

Influenza-Like Illness (ILI) Florida Summary

Eighty-one sentinels from 72 public clinics and private offices submitted reports for 31 counties during the week ending January 24, 2004 (Week 03). Counties with the highest percentage of patients with ILI were Orange (2.15%, with 3 of 5 sentinel locations reporting) Lee (3.33%, 2 of 2 reporting); Okaloosa (3.60%, 3 of 4 reporting); Sarasota (4.67%, 1 of 1 reporting); Brevard (4.89%, 3 of 3 reporting); Indian River (5.66%, 3 of 3 reporting); Polk (6.30%, 4 of 4 reporting); Palm Beach (6.90%, 5 of 5 reporting); Pasco (7.32%, 1 of 1 reporting); Escambia (13.64%, 1 of 1 reporting); Collier (14.06%, 1 of 2 reporting); Putnam (32.10%, 1 of 3 reporting); and Santa Rosa (65.71%, 1 of 2 reporting). The recent increase in ILI percent reported for

Sarasota County is due to the enrollment of a new pediatrician sentinel in that county. Ten counties reported a low percentage of patients with ILI, and 11 counties reported no cases of ILI. A breakdown of ILI% reported for week ending January 24, 2004 by county is listed in Table 1. Please note that method used to calculate participation rates has been modified to reflect changes in sentinel reporting. Instead of using the count of sentinels enrolled for each county, the formula now uses the number of sentinels reporting during the week (Sentinels Reporting) divided by number of sentinels who reported at least once during the last four weeks (Active Sentinels).

Table 1. Influenza-Like Illness Reporting by County for Week Ending 1/24/04 (Week 03) Report Date: February 2, 2004									
	Change	Active within the last 4 weeks		Reporting for Week 03			ILI % Reported for	ILI% Reported for	ILI% Reported for
County		Active Sentinels	From Offices	Sentinels reporting	From Offices	for Week 03	Week 03	Week 02	Week 01
Alachua	Decreasing	1	1	1	1	100%	0.00%	0.48%	1.83%
Brevard	Decreasing	3	3	3	3	100%	4.89%	6.80%	5.03%
Broward	Decreasing	6	6	6	6	100%	0.96%	1.86%	4.66%
Charlotte	Increasing	1	1	1	1	100%	1.16%	0.71%	3.63%
Citrus	Level	1	1	1	1	100%	0.00%	0.00%	0.22%
Collier	Increasing	2	2	1	1	50%	14.06%	0.43%	6.68%
Duval	Decreasing	5	5	4	4	80%	0.35%	1.54%	1.01%
Escambia	Level	1	1	1	1	100%	13.64%	12.65%	10.08%
Hardee	Level	1	1	1	1	100%	0.00%	0.00%	0.00%
Hillsborough	Decreasing	4	4	4	4	100%	0.15%	0.59%	1.18%
Indian River	Decreasing	8	3	8	3	100%	5.66%	7.73%	10.66%
Lake	Decreasing	2	2	2	2	100%	1.69%	3.37%	5.49%
Lee	Level	2	2	2	2	100%	3.33%	3.42%	2.32%
Leon	Decreasing	2	2	2	2	100%	1.11%	1.60%	1.53%
Marion	Level	1	1	1	1	100%	0.00%	0.00%	0.40%
Martin		1	1	0	0	0%		0.56%	0.29%
Miami-Dade	Increasing	5	5	5	5	100%	0.59%	0.48%	0.78%
Monroe	Decreasing	1	1	1	1	100%	0.00%	5.71%	4.17%
Okaloosa	Increasing	4	4	3	3	75%	3.60%	2.27%	2.47%
Orange	Level	7	5	4	3	57%	2.15%	2.59%	6.49%
Osceola	Level	1	1	1	1	100%	0.00%	0.00%	0.00%
Palm Beach	Increasing	5	5	5	5	100%	6.90%	3.60%	7.46%
Pasco	Increasing	1	1	1	1	100%	7.32%	0.00%	2.94%
Pinellas	Level	7	7	5	5	71%	1.54%	1.65%	4.10%
Polk	Increasing	7	4	7	4	100%	6.30%	4.42%	5.61%
Putnam		3	3	1	1	33%	32.10%	20.60%	14.63%
Santa Rosa	Increasing	2	2	1	1	50%	65.71%	38.51%	2.08%
Sarasota	Level	1	1	1	1	100%	4.67%	3.95%	3.72%
Seminole	Decreasing	2	2	2	2	100%	1.54%	2.32%	3.76%
St. Johns	Level	1	1	1	1	100%	0.00%	0.00%	1.19%
St. Lucie	Level	1	1	1	1	100%	0.00%	0.00%	0.00%
Volusia	Decreasing	4	4	4	4	100%	1.46%	3.26%	1.93%
Walton		1	1	0	0	0%		0.00%	0.00%

Laboratory Specimen Testing in Florida

Eleven of the 41 specimens received by the Jacksonville Central and Tampa Branch laboratories for influenza isolate testing during the week ending January 24, 2004 (Week 03) were found positive for influenza A. Of these 11 viruses, 5 were found positive for A (H3N2), and 6 were found positive for Influenza A, unknown. These viruses came from Hardee, Miami-Dade, Okaloosa, Sarasota, and Volusia counties. Culture testing continues on 2 of the unknown 6 Influenza A specimens received 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 24, 2004, the Florida laboratories tested a total of 524 specimens and found 159 positive for influenza A (H3N2) and 60 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 C	County Foun	d During 200	03-2004 Surveillan	се
	-	Report Date: Fe	ebruary 2, 2004		
Numbe				ve specimens, week 03)	
County	Type A - H3N2	Type A - H1N1	Type A - Unknown	Type A - Unknown Culture Pending	Type B
Alachua	10		5		
Brevard	1				
Broward	6			6	
Charlotte				1	
Citrus	5			3	
Collier	3				
Duval	30		8		
Hardee	(1)			(1)	
Hernando	1				
Hillsborough	14			6	
Indian River	25		11		
Lake	1				
Lee	2				
Leon	21		4		
Marion	1				
Martin	1				
Miami-Dade	6(2)		8(4)		
Monroe	2		1		
Okaloosa	5(1)				
Orange	5		4	1	
Osceola	2		1		
Palm Beach	7			3	
Pasco	3				
Pinellas	10			3	
Polk	20			5	
Putnam	4			3	
Sarasota	8(1)				
St Johns	10	T	4		
Volusia	6	T	3	(1)	
Wakulla	1	T		1	
Washington			1		

Rapid Testing Performed by Private Laboratories in Florida

No update available for Week 03. 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 26, 2003							
County	Rapid Tests performed	Negative Tests	Positive for A/B	Positive for A	Positive for B		
Alachua	Unknown	Unknown	5	0	0		
Bay	526	408	91	128	1		
Brevard	675	495	0	189	0		
Broward	7	6	0	1	0		
Clay	Unknown	Unknown	1	0	0		
Collier	Unknown	Unknown	362	0	0		
Hillsborough	Unknown	Unknown	3	21	0		
Marion	2	1	1	0	0		
Miami-Dade	249	138	88	0	0		
Orange	24	16	14	0	0		
Pinellas	3	1	2	0	0		
Sarasota	Unknown	Unknown	61	61	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: http://www.cdc.gov/flu

Influenza-Like Illness Report for the Week ending January 24, 2004

The proportion of patient visits to sentinel physicians for influenza-like illness (ILI) remained at 2.0% nationwide. This is below the national baseline of 2.5%. On a regional level, the South Atlantic region, in which Florida is located, had the highest percentage of visits for ILI (3.1%). The West North Central region had the lowest percentage of visits for ILI (1.0%). 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.

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

During week 03, 85 (7.5%) of the 1,136 specimens tested at WHO and NREVSS laboratories were positive. Of these 85 positive specimens, 23 were Influenza A (H3N2) viruses, and 62 were influenza A viruses that were not subtyped. Since September 28, 2003 WHO and NREVSS laboratories tested 83,218 specimens for influenza viruses and found 21,599 positive specimens. Of the positive specimens, 128 were influenza B viruses, 5,319 were influenza A (H3N2), and one was A (H1). The remaining 16,151 Influenza A viruses have not been subtyped.

Antigenic Characterization: No new report for Week 03

The CDC has antigenically characterized two influenza A (H1) viruses, 565 influenza A (H3N2) viruses, and six 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 565 influenza A (H3N2) isolates characterized, 106 (18.8%) were similar antigenically to the vaccine strain A/Panama/2007/99 (H3N2), and 459 (81.2%) were similar to the drift variant, A/Fujian/411/2002 (H3N2). Five 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.

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.

Table 4. 2003-2004 Specimen Testing Summary By Region Report Date: February 2, 2004							
Region	Total Specimens	AH1N1	AH3N2	A-Unk	В	Ratio Pos.	ILI Reporting: Weighted ILI%
New England Region	2,794	0	194	767	1	0.344	2.262
Mid-Atlantic Region	8,818	0	133	1,314	6	0.165	2.668
East North Central Region	5,009	0	867	471	3	0.268	4.039
West North Central Region	9,453	0	341	1,670	4	0.213	3.426
South Atlantic Region	15,326	1	1,207	3,585	65	0.317	3.558
East South Central Region	3,733	0	356	268	1	0.167	3.297
West South Central Region	16,928	0	957	4,019	9	0.294	6.662
Mountain Region	10,984	0	622	2,798	35	0.315	2.973
Pacific Region	10,173	0	642	1,259	7	0.188	4.399

122 US Cities Vital Statistics Mortality Report

The percentage of all deaths due to pneumonia and influenza was 9.7%. This percentage is above the epidemic threshold of 8.2% for the week ending January 24, 2004.

Influenza Surveillance in the United States Definitions and Reminders

Definitions of the influenza activity levels are as follows:

No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.

Sporadic: Small numbers of laboratory-confirmed influenza cases or a single influenza outbreak has been reported, but there is no increase in cases of ILI.

Local: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.

Regional: 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.

Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state.

Important Reminders:

Influenza activity reporting by sentinel providers is voluntary

The influenza surveillance data is used to answer the question of where, when, and what viruses are circulating. It can be used to determine if influenza activity is increasing or decreasing, but it cannot be used to ascertain how many people have become ill with influenza so far this season.

International Influenza Activity

Report from the European Influenza Surveillance Scheme (EISS)

Of the 22 European countries that are members of the EISS, widespread influenza activity was reported in Italy and Switzerland; Latvia reported regional activity; 16 networks reported local or sporadic activity; and 4 networks reported no activity for the week ending January 24, 2004. Strong increases were reported in Latvia, Poland and Slovakia. For all countries reporting increased activity, clinical incidence was highest among the 0-14 age group. In Europe, influenza A/Fujian/411/2002 (H3N2)-like viruses are predominant. Influenza B viruses were isolated from England, Ireland and France. Antigenic characterization of 3 influenza B viruses identified B/Sichuan/379/99-like, which is a strain not included in the current vaccine. For more information about the EISS report, please visit their website at http://www.eiss.org/

World Health Organization Communicable Disease Surveillance and Response

For more information about the WHO Communicable Disease Surveillance and Response Updates, please visit their website at http://www.who.int/csr/don/en/. A WHO fact sheet about the significance for human health of avian influenza can be found at http://www.who.int/csr/don/2004_01_15/en/

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