

Influenza Surveillance Report

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Week 4 From 1/23/2011 - 1/29/2011

The Influenza Surveillance Summary Report describes the results of the tracking done by the Louisiana Office of Public Health Infectious Disease Epidemiology Section (IDEpi). This report relies on data supplied by sentinel surveillance sites, including hospital emergency department (ED), laboratories and physicians' offices. Sentinel sites provide weekly data on Influenza Like Illness (ILI) and/or laboratory confirmed cases.

Taken together, ILI surveillance and laboratory surveillance provide a clear picture of the influenza activity occurring in Louisiana each week. If you have any questions about our surveillance system or would like more information, please contact Julie Hand at 504-219-4563 or julie.hand@la.gov.

ILI is defined as an illness characterized by cough and/or cold symptoms and a fever of 100° F or greater in the absence of a known cause. While not every case of ILI is a case of influenza, the CDC has found that trends in ILI from sentinel sites are a good proxy measure of the amount of influenza activity in an area. For this reason, all states and territories participating in the national surveillance program monitor weekly ILI ratios from their sentinel surveillance sites.



Laboratory testing: Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information is included on page 4 of this report.

Influenza activity remains very high in Louisiana. Thirty percent of samples tested were positive for influenza. Influenza B remains the predominant strain reported from sentinel sites and the state laboratory; 67% of all subtyped positives reported this week from sentinel sites are type B.

Of the Louisiana samples antigenically characterized by CDC, 90% have matched circulating viruses that belong to the B/Victoria lineage which is the B component of the 2010-2011 influenza vaccine.

Page 2 : ILI Activity

Page 3: Geographical Distribution of ILI

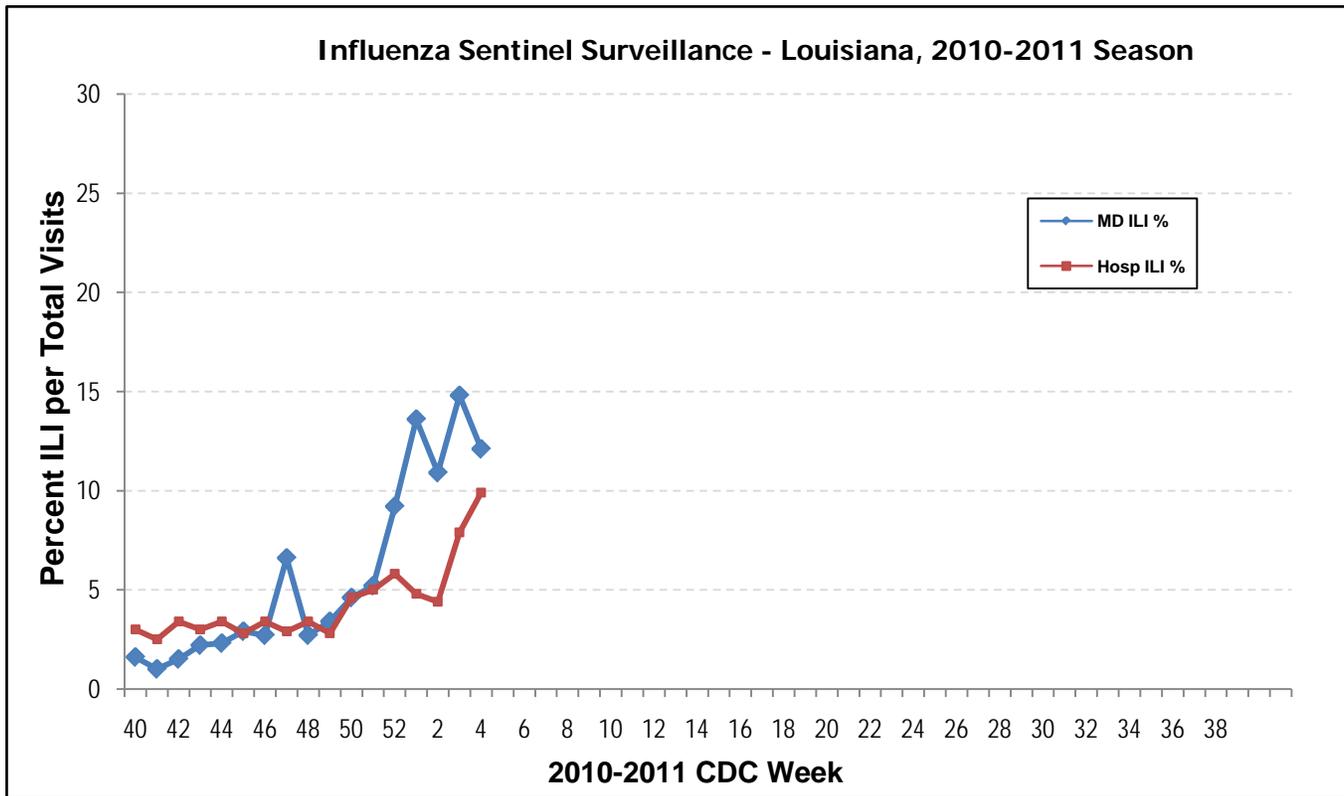
Page 4: Laboratory Surveillance

Page 5: National Data Summary

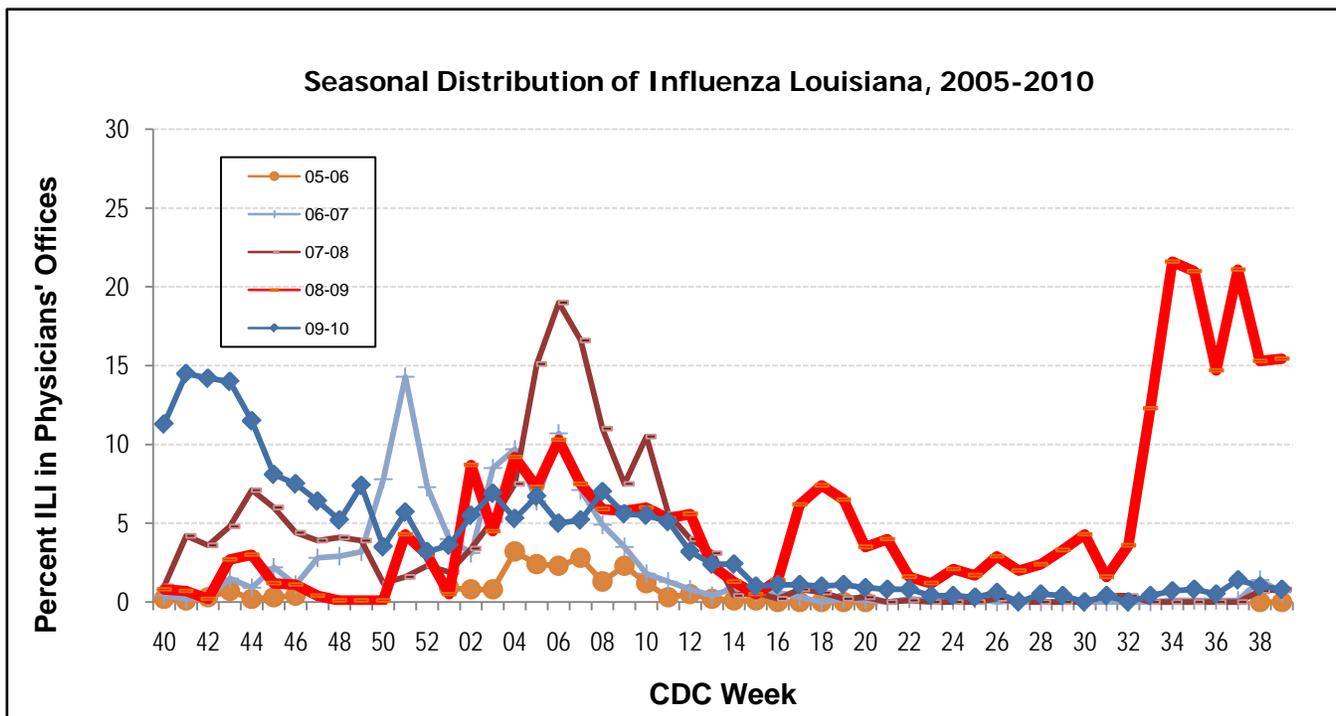
Page 6: Influenza Activity Maps

ILI Surveillance

This graph shows the percentage of visits for ILI over the total number of visits for sentinel physicians' offices and emergency departments. This is the best approach to estimate the magnitude of influenza transmission. ILI counts do include some viral infections other than influenza, but experience over the last 50 years has shown that this approach is a reliable method to estimate influenza transmission. It does not show which strain of influenza virus is responsible. The page on lab surveillance does show the proportion of specimens attributable to each virus strain.



This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



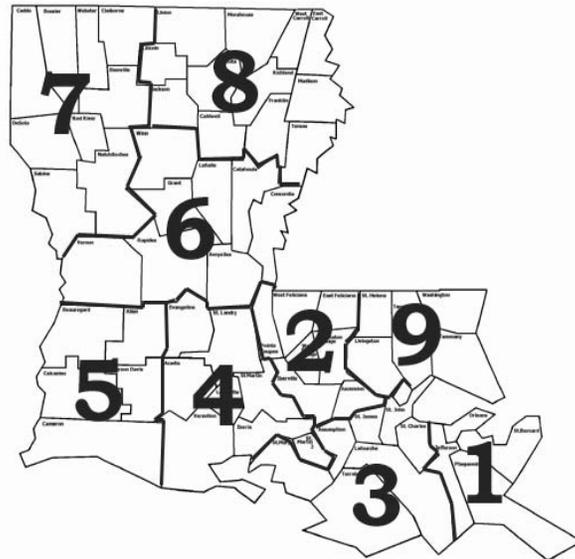
Geographical Distribution of ILI

Region	Parish	%ILI*	
Region 1	Jefferson	0.4	
	Orleans	6.5	
	Plaquemines		
	St Bernard	7.5	
	All Region 1	4.3	
Region 2	Ascension		
	East Baton Rouge	10.6	
	East Feliciana		
	Iberville		
	Pointe Coupee		
	West Baton Rouge		
	West Feliciana		
	All Region 2	10.6	
Region 3	Assumption		
	Lafourche	19.5	
	St Charles		
	St James	10.0	
	St. John		
	St. Mary	7.5	
	Terrebonne	4.9	
	All Region 3	11.7	
Region 4	Acadia		
	Evangeline		
	Iberia		
	Lafayette	5.4	
	St Landry		
	St Martin		
	Vermillion		
	All Region 4	5.4	
Region 5	Allen		
	Beauregard		
	Calcasieu	4.3	
	Cameron		
	All Region 5	6.1	
Region 6	Avoyelles		
	Catahoula		
	Concordia	12.4	
	Grant		
	LaSalle	27.3	
	Rapides	21.2	
	Vernon	1.8	
	Winn	16.8	
	All Region 6	17.3	
	Region 7	Bienville	
Bossier			
Caddo		16.7	
Claiborne			
DeSoto			
Natchitoches			
Red River			
Sabine			
All Region 7		16.7	

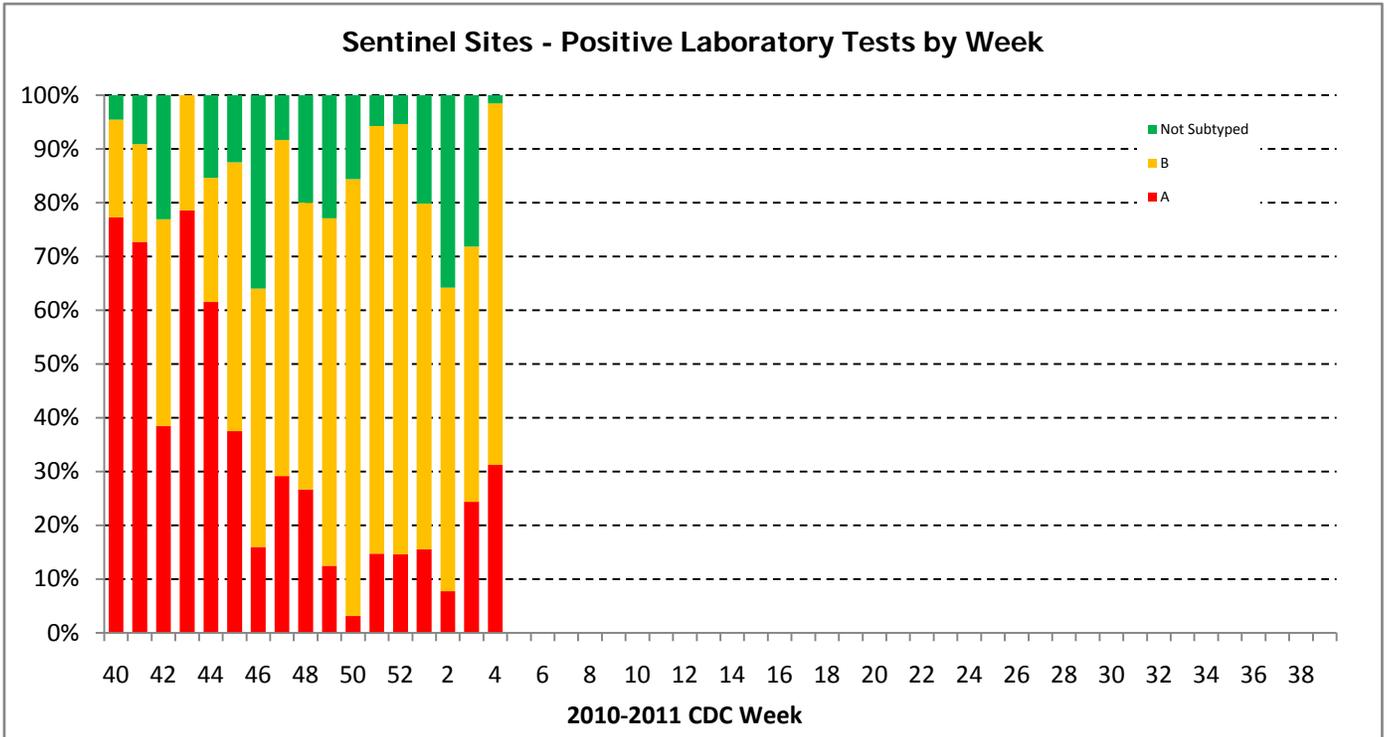
Region	Parish	%ILI*	
Region 8	Caldwell		
	East Carroll		
	Franklin		
	Jackson		
	Lincoln		
	Madison		
	Morehouse	3.2	
	Ouachita	21.9	
	Richland		
	Tensas		
	Union	2.8	
All Region 8	13.9		
Region 9	Livingston	21.1	
	St. Helena		
	St Tammany	6.5	
	Tangipahoa	15.7	
	All Region 9	9.1	
Grand Total			

Low <2%	
MedLow 2-5%	
MedHigh 5-10%	
Very High >10%	

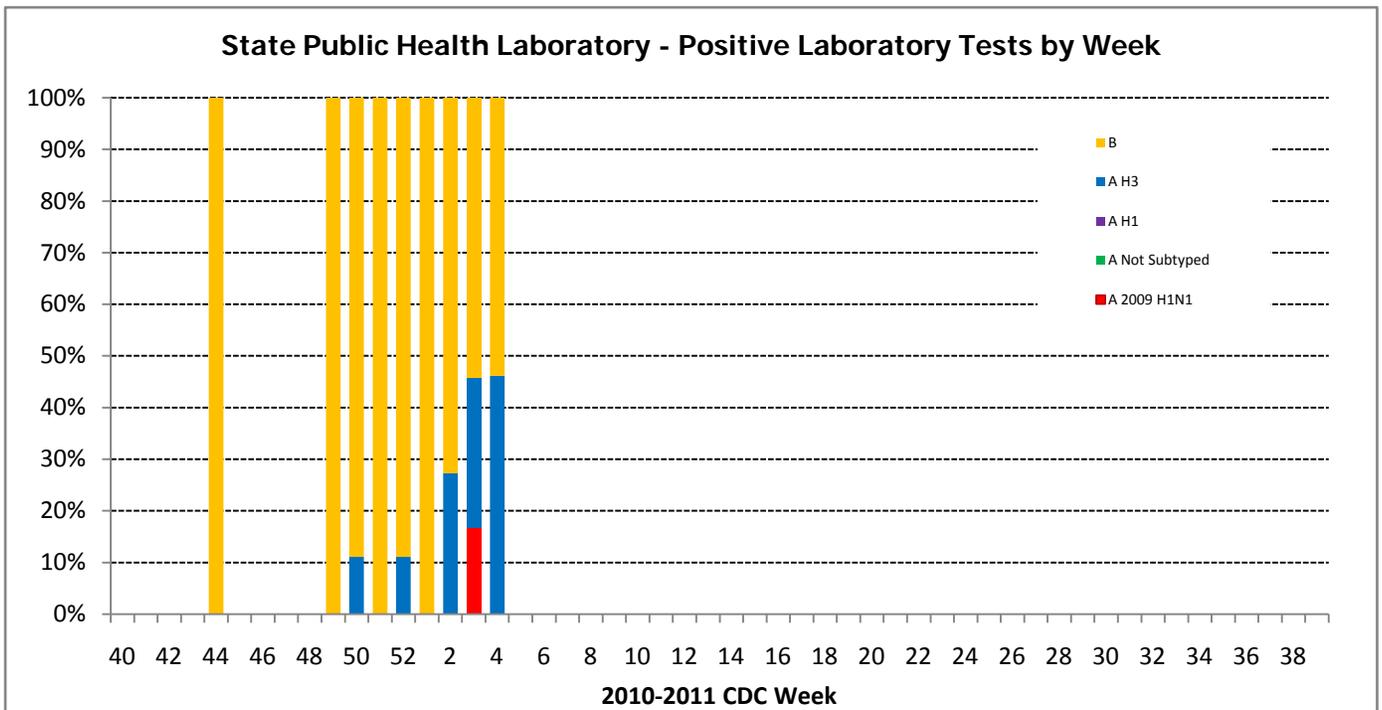
* %ILI over the last 4 weeks based on sentinel surveillance data



Laboratory Surveillance



These graphs show the distribution by virus type. Sentinel site testing is based on rapid test results. The State Public Health Laboratory performs PCR testing on all samples.



National Data Summary

During week 4, influenza activity in the United States increased.

Proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.

Six influenza-associated pediatric deaths were reported. Four of these deaths were associated with influenza B viruses, one of these deaths was associated with an influenza A (H3) virus, and one was associated with a 2009 influenza A (H1N1) virus.

Proportion of outpatient visits for influenza-like illness (ILI) was 4.0%, which is above the national baseline of 2.5%.

U.S. Virologic Surveillance:

	Week 2
Specimens tested	6,209
Positive specimens	2,044 (32.9%)
<i>Positive specimens by type/subtype</i>	
Influenza A	1,671 (81.8%)
A (2009 H1N1)	423 (25.3%)
A (subtyping not performed)	530 (31.7%)
A (H3)	718 (43.0%)
Influenza B	373 (18.2%)

Antigenic Characterization:

CDC has antigenically characterized 416 influenza viruses [46 2009 influenza A (H1N1) viruses, 188 influenza A (H3N2) viruses, and 182 influenza B viruses] collected by U.S. laboratories since October 1, 2010.

2009 Influenza A (H1N1) [46]

All 29 were characterized as A/California/7/2009-like, the influenza A (H1N1) component of the 2010-2011 influenza vaccine for the Northern Hemisphere.

Influenza A (H3N2) [188]

All 188 were characterized as A/Perth/16/2009-like, the influenza A (H3N2) component of the 2010-2011 influenza vaccine for the Northern Hemisphere.

Influenza B (B/Victoria/02/87 and B/Yamagata/16/88 lineages) [182]

Victoria Lineage [170]

169 (99.4%) of the 170 influenza B viruses tested belong to the B/Victoria lineage of viruses and were characterized as B/Brisbane/60/2008-like, the recommended component for the 2010-2011 Northern Hemisphere influenza vaccine.

Yamagata Lineage [11]

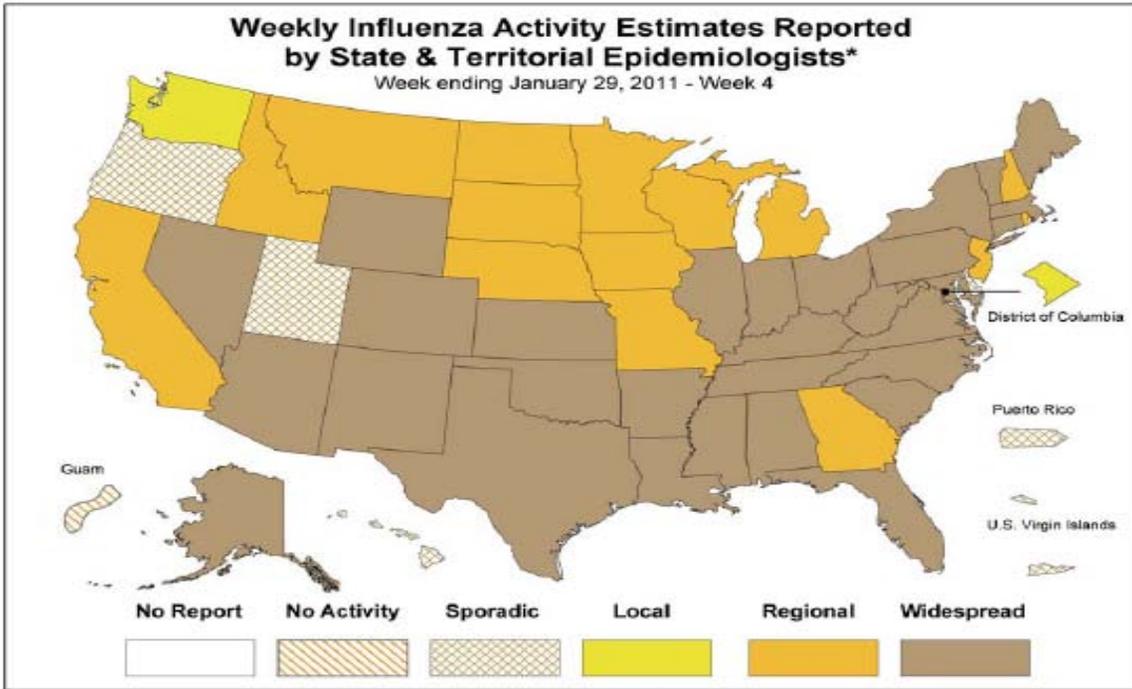
12 (7%) of the 182 viruses were identified as belonging to the B/Yamagata lineage of viruses.

Antiviral Resistance:

	Viruses tested (n)	Resistant Viruses, Number (%)	Viruses tested (n)	Resistant Viruses, Number
		Oseltamivir		Zanamivir
Seasonal Influenza A (H1N1)	0	0 (0.0)	0	0 (0.0)
Influenza A (H3N2)	158	0 (0.0)	158	0 (0.0)
Influenza B	119	0 (0.0)	119	0 (0.0)
2009 Influenza A (H1N1)	87	0 (0.0)	33	0 (0.0)

Influenza Activity Maps

Graph 1: Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists: The influenza activity reported by state and territorial epidemiologists indicates geographic spread of influenza viruses, but does not measure the severity of influenza activity.



Graph 2: ILINet Activity Indicator Map: Data collected in ILINet are used to produce a measure of ILI activity by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation.

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2010-11 Influenza Season Week 4 ending Jan 29, 2011

