

Influenza Surveillance Report

www.infectiousdisease.dhh.louisiana.gov

Week 17 From 4/24/2011 - 4/30/2011

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.

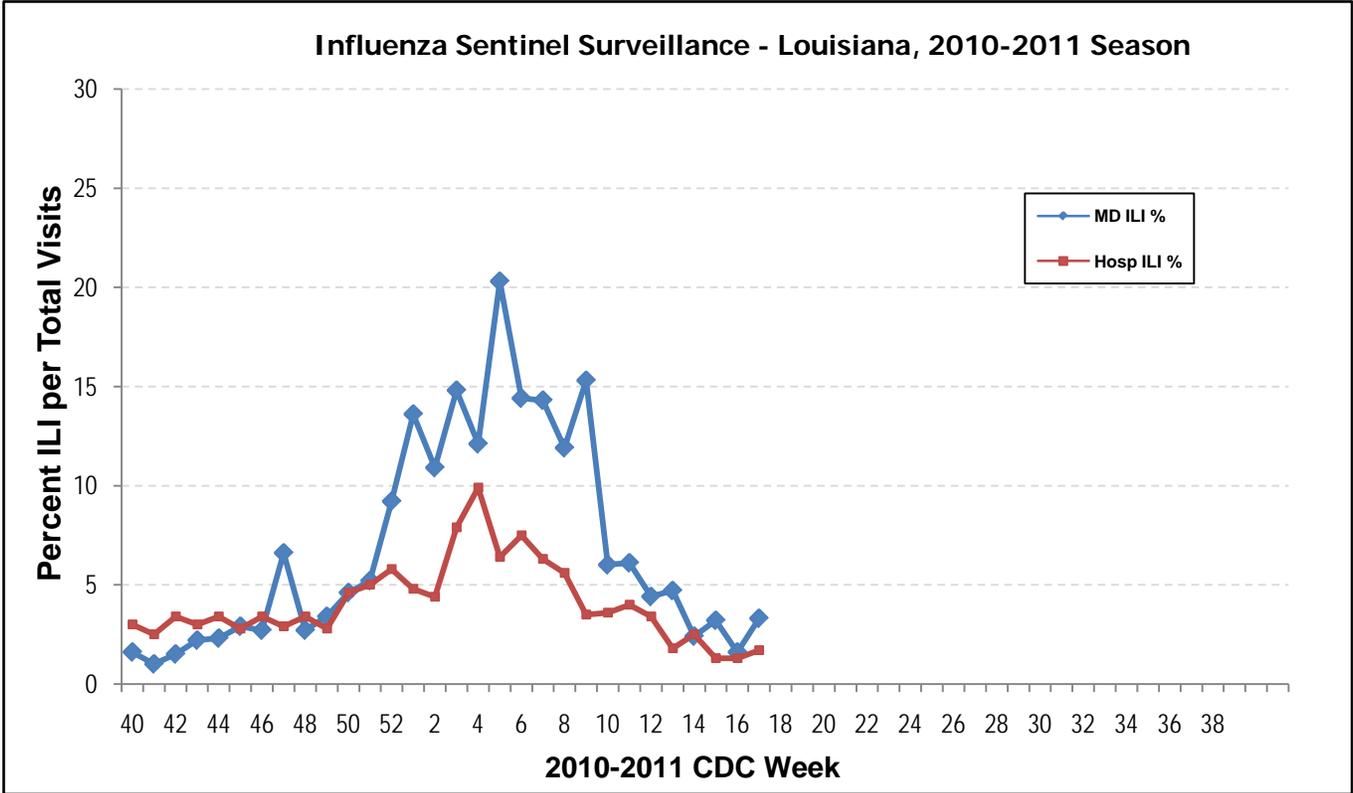
Influenza activity remained very low during week 17. Only six percent of samples tested were positive for influenza.

Of the Louisiana samples antigenically characterized by CDC, 93% have matched circulating viruses that are included as components of the 2010-2011 influenza vaccine.

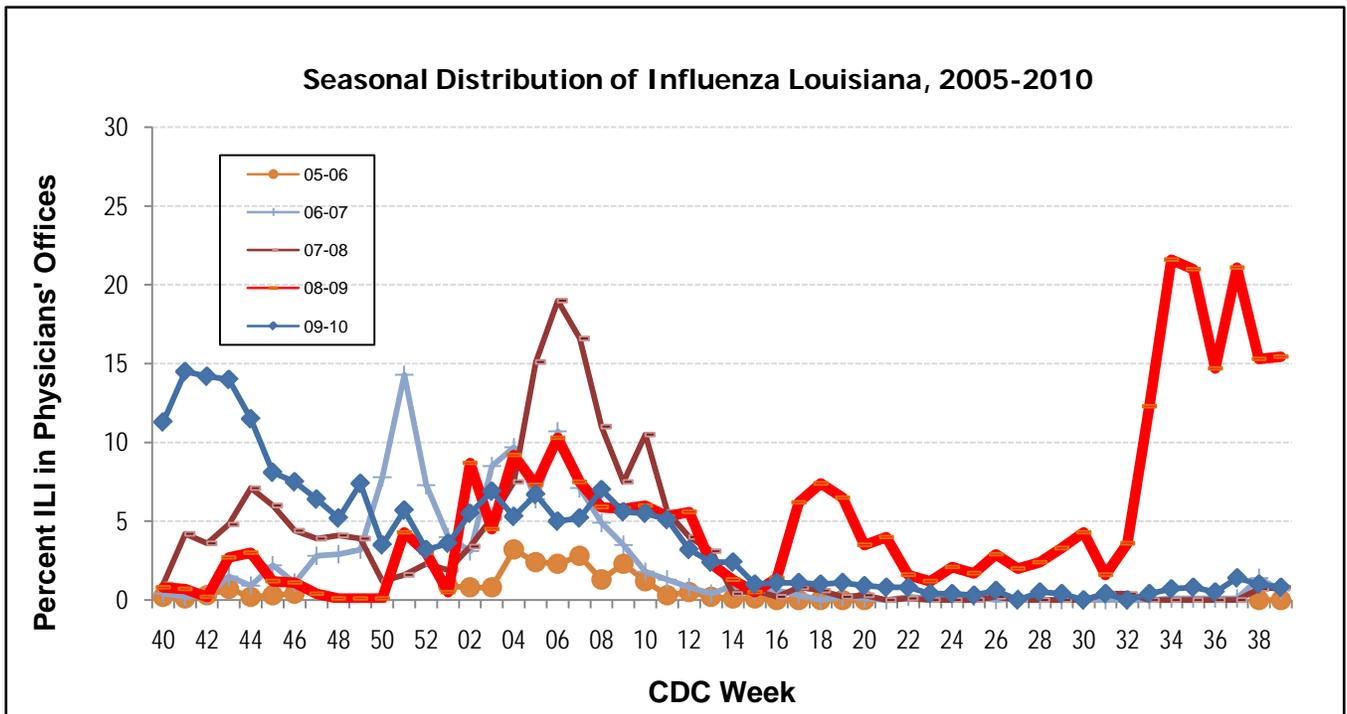
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ILI Surveillance

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.



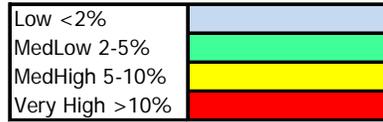
This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



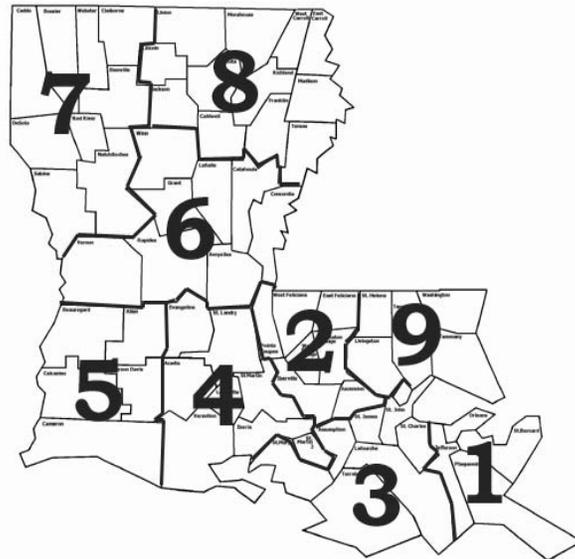
Geographical Distribution of ILI

Region	Parish	%ILI*
Region 1	Jefferson	0.2
	Orleans	1.8
	Plaquemines	
	St Bernard	
	All Region 1	1.0
Region 2	Ascension	
	East Baton Rouge	3.6
	East Feliciana	
	Iberville	
	Pointe Coupee	
	West Baton Rouge	
	West Feliciana	
	All Region 2	3.6
Region 3	Assumption	
	Lafourche	3.9
	St Charles	
	St James	5.3
	St. John	
	St. Mary	0.1
	Terrebonne	0.2
	All Region 3	2.5
	Region 4	Acadia
Evangeline		
Iberia		
Lafayette		0.8
St Landry		
St Martin		
Vermillion		
All Region 4		0.8
Region 5	Allen	2.5
	Beauregard	
	Calcasieu	1.4
	Cameron	
	Jefferson Davis	1.3
	All Region 5	1.5
Region 6	Avoyelles	
	Catahoula	
	Concordia	
	Grant	
	LaSalle	3.1
	Rapides	10.6
	Vernon	0.2
	Winn	8.9
	All Region 6	7.9
Region 7	Bienville	
	Bossier	
	Caddo	2.6
	Claiborne	
	DeSoto	
	Natchitoches	
	Red River	
	Sabine	
	Webster	
All Region 7	2.6	

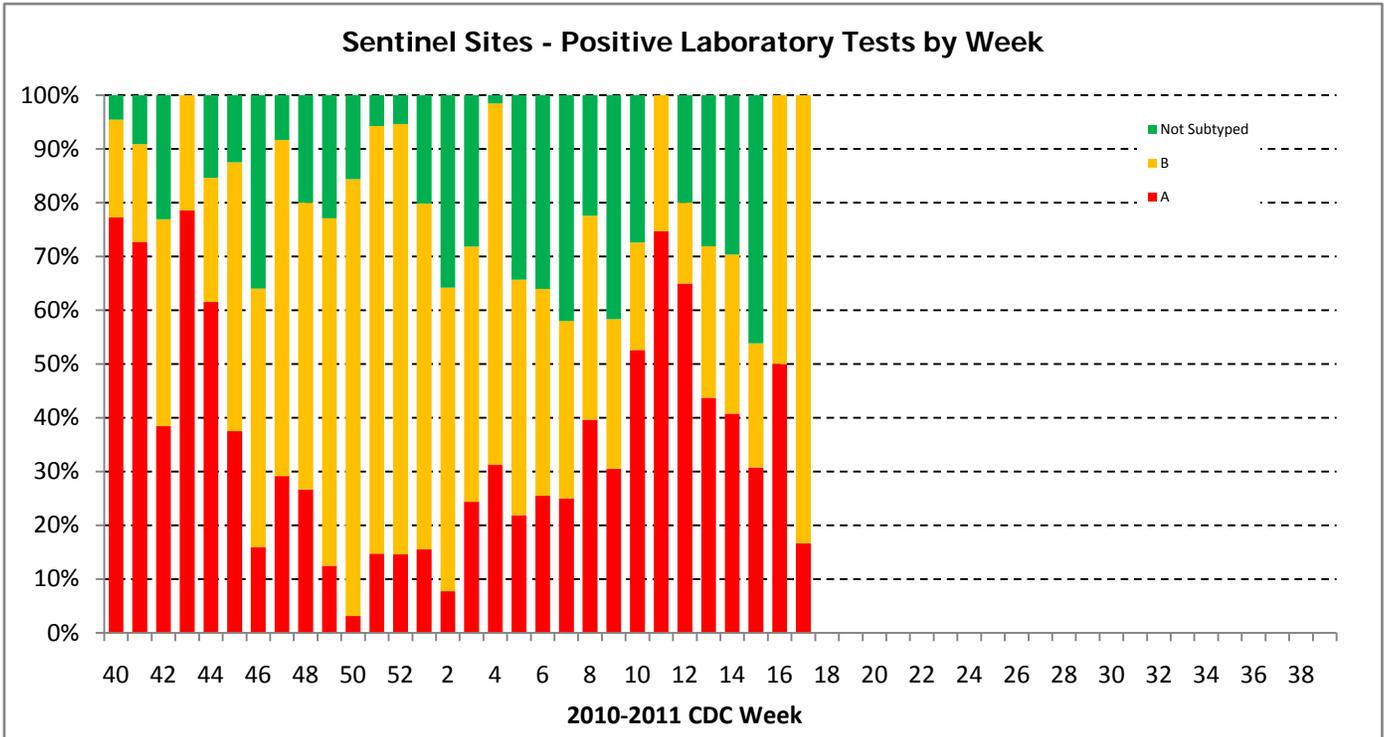
Region	Parish	%ILI*
Region 8	Caldwell	
	East Carroll	
	Franklin	
	Jackson	
	Lincoln	
	Madison	
	Morehouse	1.0
	Ouachita	1.4
	Richland	
	Tensas	
Union	1.0	
West Carroll		
All Region 8	1.2	
Region 9	Livingston	4.3
	St. Helena	
	St Tammany	0.5
	Tangipahoa	2.9
	Washington	0.5
	All Region 9	1.7
Grand Total		



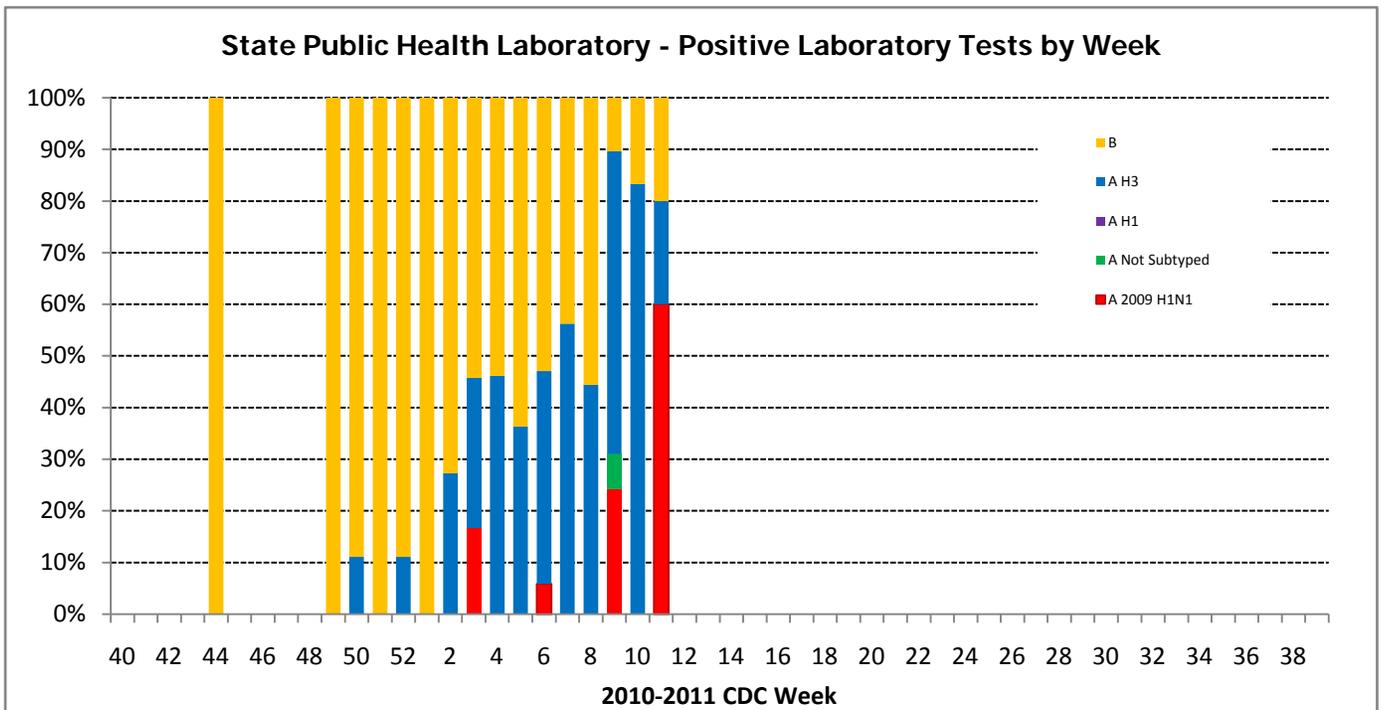
* %ILI over the last 4 weeks based on sentinel surveillance data



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 17, influenza activity in the United States continued to decrease.

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

Three influenza-associated pediatric deaths were reported bringing the season total to 100. One of these deaths was associated with a 2009 influenza A (H1N1) virus, one was associated with an influenza A virus for which the subtype was not determined, and one was associated with an influenza B virus.

Proportion of outpatient visits for influenza-like illness (ILI) was 1.3%, below the national baseline of 2.5%.

U.S. Virologic Surveillance:

	Week 14
Specimens tested	1,901
Positive specimens	69 (3.6%)
<i>Positive specimens by type/subtype</i>	
Influenza A	36 (52.2%)
A (2009 H1N1)	6 (16.7%)
A (subtyping not performed)	11 (30.6%)
A (H3)	19 (52.8%)
Influenza B	33 (47.8%)

Antigenic Characterization:

CDC has antigenically characterized 2,182 influenza viruses [518 2009 influenza A (H1N1) viruses, 997 influenza A (H3N2) viruses, and 667 influenza B viruses] collected by U.S. laboratories since October 1, 2010.

2009 Influenza A (H1N1) [518]

517 (99.8%) of the 518 tested 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) [997]

962 (96.5%) of the 997 tested 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) [667]

Victoria Lineage [629]

629 (94.3%) of the 667 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 [38]

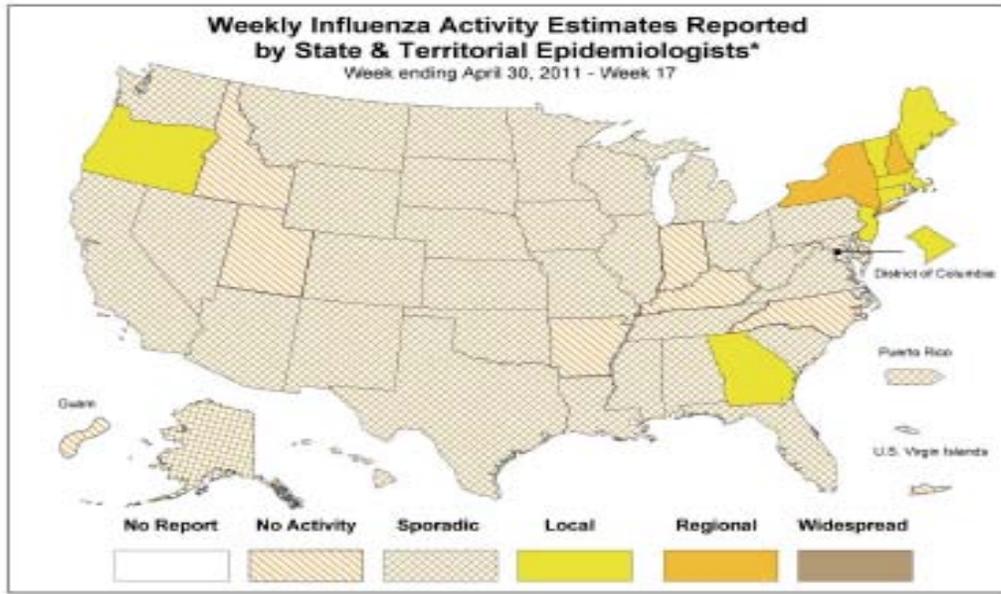
38 (5.9%) of the 667 viruses were identified as belonging to the B/Yamagata lineage of viruses.

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)	684	2 (0.3)	662	0 (0.0)
Influenza B	641	0 (0.0)	641	0 (0.0)
2009 Influenza A (H1N1)	3,188	32 (1.0)	441	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.



* This map indicates geographic spread & 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 17 ending Apr 30, 2011

