

Influenza Surveillance Report

www.infectiousdisease.dhh.louisiana.gov

Week 10 From 3/6/2011 - 3/12/2011

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.

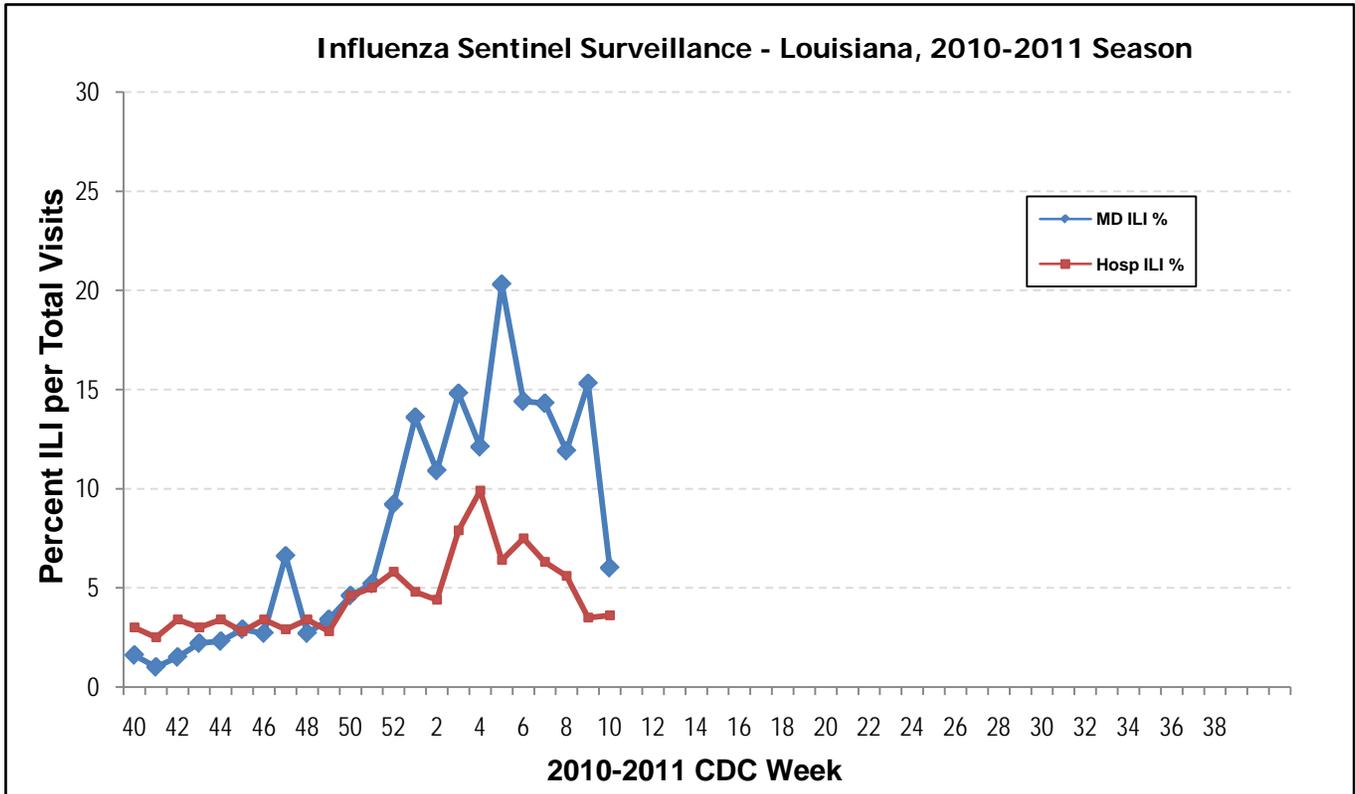
Influenza activity is decreasing in Louisiana. Fifteen percent of samples tested were positive for influenza. There was an equal distribution of both subtypes reported from sentinel sites this week.

Of the Louisiana samples antigenically characterized by CDC, 89.6% have matched circulating viruses that belong to the B/Victoria lineage which is the B component of the 2010-2011 influenza vaccine.

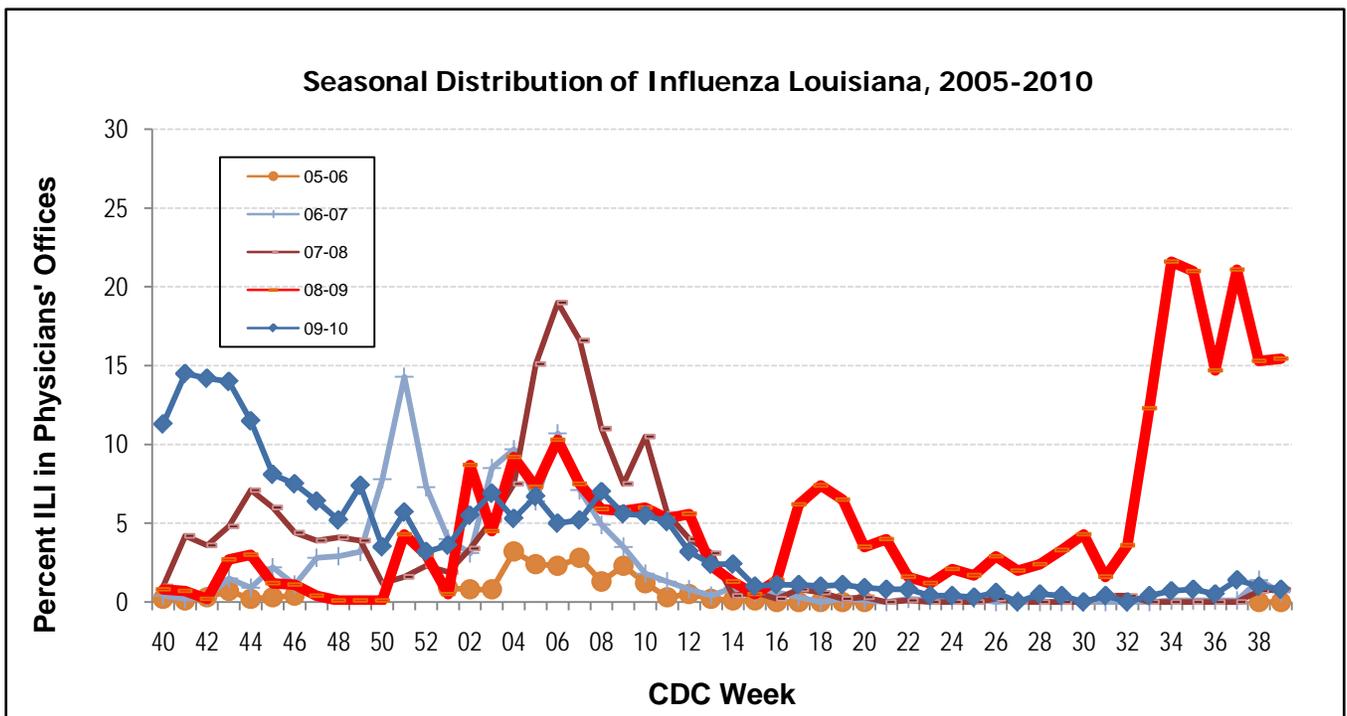
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ILI Surveillance

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.



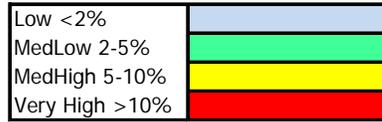
This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



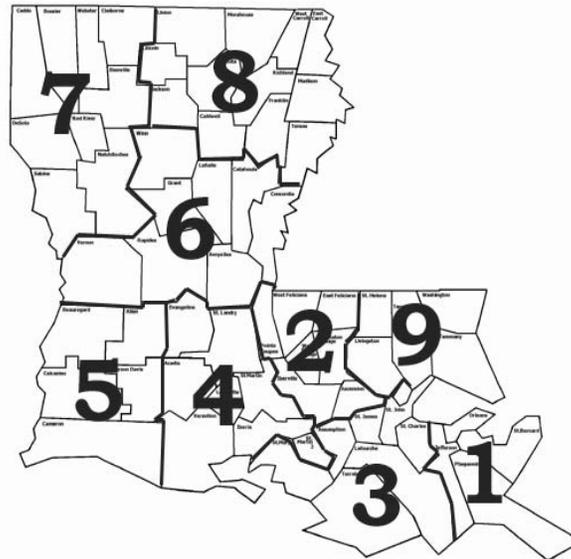
Geographical Distribution of ILI

Region	Parish	%ILI*	
Region 1	Jefferson	0.4	Green
	Orleans	3.2	
	Plaquemines		
	St Bernard		
	All Region 1	2.0	
Region 2	Ascension		Red
	East Baton Rouge	13.1	
	East Feliciana	1.9	
	Iberville		
	Pointe Coupee		
	West Baton Rouge		
	West Feliciana		
	All Region 2	12.4	
Region 3	Assumption		Yellow
	Lafourche	12.1	
	St Charles		
	St James	9.0	
	St. John		
	St. Mary	6.4	
	Terrebonne	1.1	
	All Region 3	7.4	
Region 4	Acadia		Green
	Evangeline		
	Iberia		
	Lafayette	4.5	
	St Landry		
	St Martin		
	Vermillion		
	All Region 4	4.5	
Region 5	Allen	5.7	Green
	Beauregard		
	Calcasieu	5.3	
	Cameron		
	All Region 5	4.9	
Region 6	Avoyelles		Red
	Catahoula		
	Concordia		
	Grant		
	LaSalle	21.1	
	Rapides	17.6	
	Vernon	5.1	
	Winn	13.7	
	All Region 6	16.4	
Region 7	Bienville		Yellow
	Bossier		
	Caddo	8.3	
	Claiborne		
	DeSoto		
	Natchitoches		
	Red River		
	Sabine		
	All Region 7	8.3	

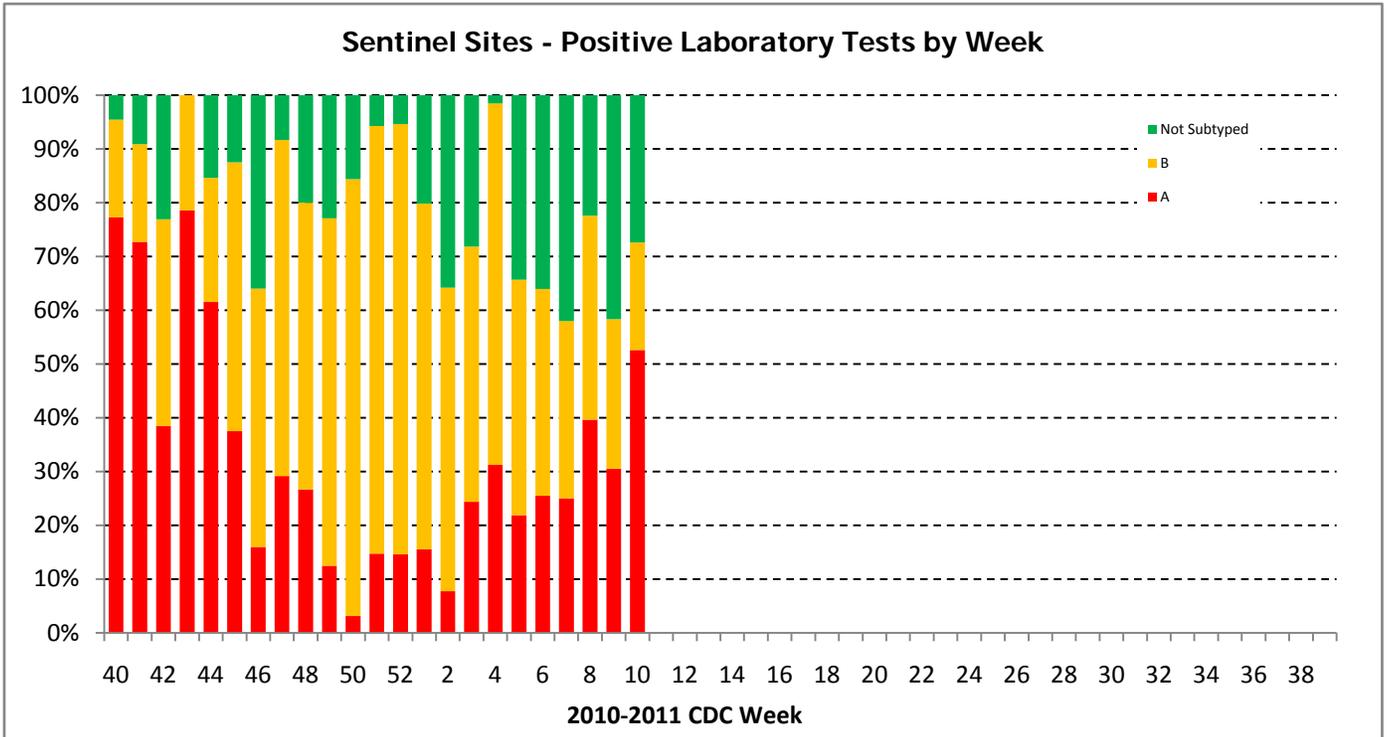
Region	Parish	%ILI*	
Region 8	Caldwell		Red
	East Carroll		
	Franklin		
	Jackson		
	Lincoln		
	Madison		
	Morehouse	5.0	
	Ouachita	17.9	
	Richland		
	Tensas		
	Union	7.3	
All Region 8	14.1		
Region 9	Livingston	19.8	Red
	St. Helena		
	St Tammany	9.3	
	Tangipahoa	17.2	
	All Region 9	11.2	
Grand Total			



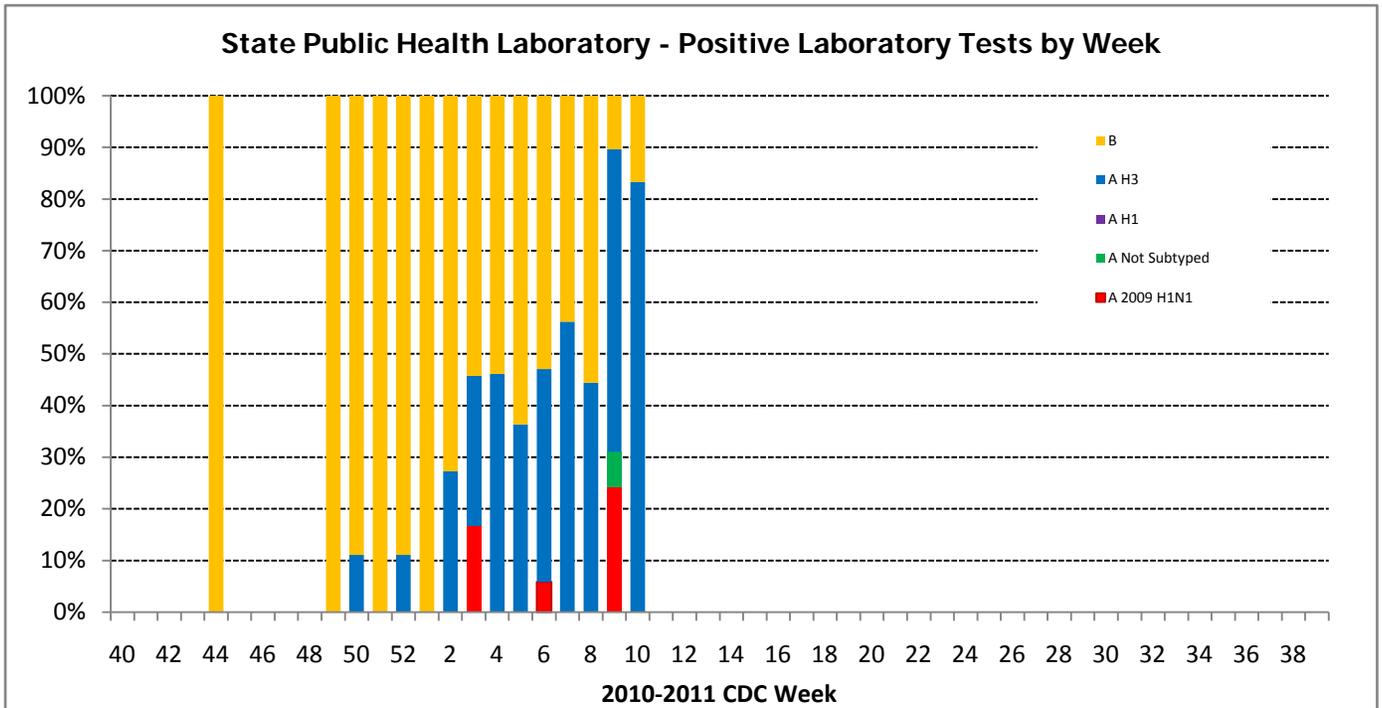
* %ILI over the last 4 weeks based on sentinel surveillance data



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 10, influenza activity in the United States decreased.

Proportion of deaths attributed to pneumonia and influenza (P&I) was at or above the epidemic threshold for the seventh consecutive week.

Eleven influenza-associated pediatric deaths were reported bringing the season total to 71. Four of these deaths were associated with an influenza B virus, three were associated with 2009 influenza A (H1N1) viruses, two were associated with influenza A (H3N2) viruses, and two were associated with an influenza A virus for which the subtype was undetermined.

Proportion of outpatient visits for influenza-like illness (ILI) was 3.0%, which is above the national baseline of 2.5%.

U.S. Virologic Surveillance:

	Week 6
Specimens tested	6,384
Positive specimens	1,346 (21.1%)
<i>Positive specimens by type/subtype</i>	
Influenza A	981 (72.9%)
A (2009 H1N1)	288 (29.4%)
A (subtyping not performed)	307 (31.3%)
A (H3)	386 (39.3%)
Influenza B	365 (27.1%)

Antigenic Characterization:

CDC has antigenically characterized 1,199 influenza viruses [240 2009 influenza A (H1N1) viruses, 552 influenza A (H3N2) viruses, and 407 influenza B viruses] collected by U.S. laboratories since October 1, 2010.

2009 Influenza A (H1N1) [240]

239 (99.6%) of the 240 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) [552]

535 (96.9%) 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) [407]

Victoria Lineage [382]

382 (93.9%) of these 407 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 [25]

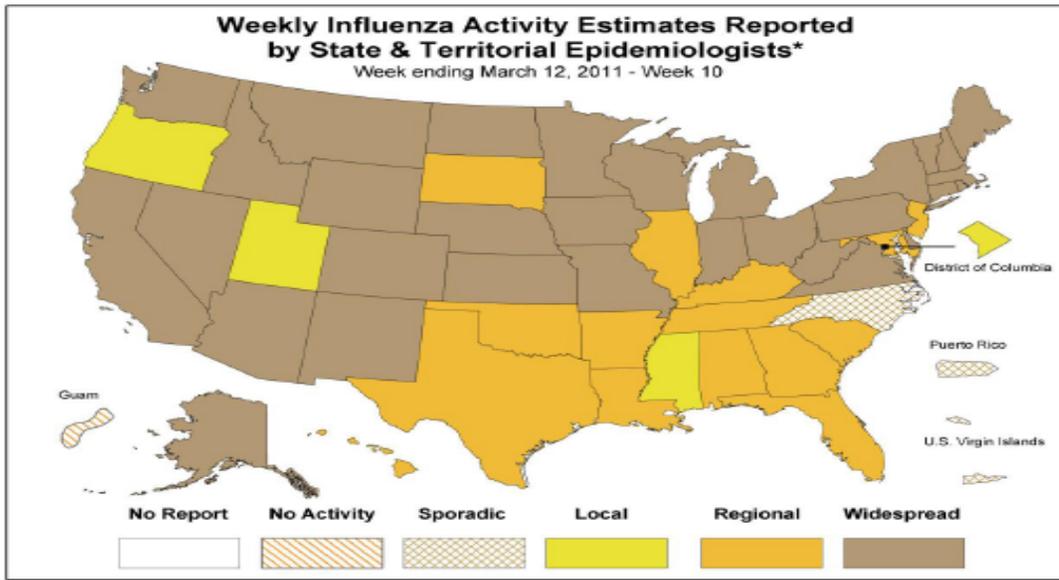
25 (6.1%) of the 407 viruses were identified as belonging to the B/Yamagata lineage of viruses.

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)	445	0 (0.0)	447	0 (0.0)
Influenza B	418	0 (0.0)	418	0 (0.0)
2009 Influenza A (H1N1)	533	3 (0.6%)	165	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 10 ending Mar 12, 2011

