Influenza Surveillance Report

www.infectiousdisease.dhh.louisiana.gov **Week 1: 12/30/12 - 01/05/13**

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 504-568-8298 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.

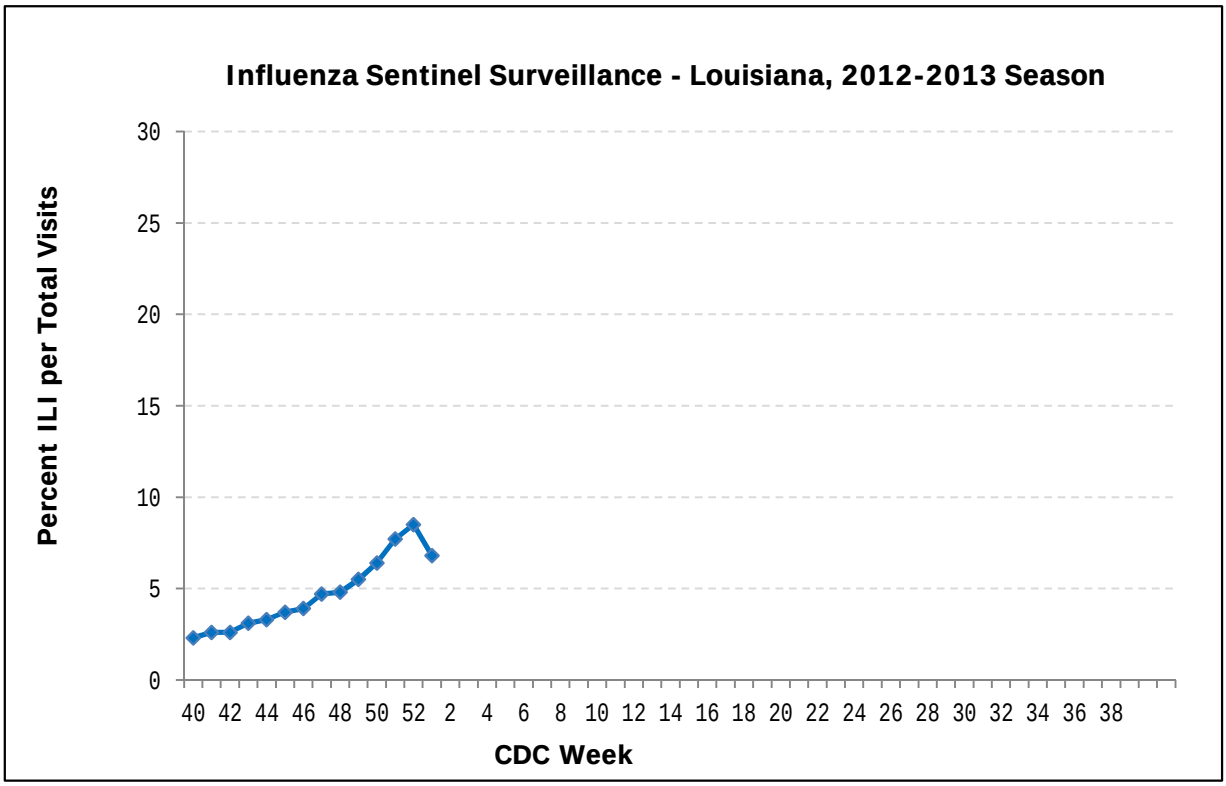
Laboratory testing: Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information is included on page 3 of this report.

During week 1 (December 30, 2012 - January 5, 2013) influenza-like illness slightly decreased in Louisiana. The percent of positive samples from sentinel laboratories and the state lab remains stable. All samples submitted to CDC for subtyping so far this season have been characterized as A/VICTORIA/361/2011-LIKE(H3N2) GP, the influenza A (H3N2) component of the 2012-2013 Northern Hemisphere vaccine.

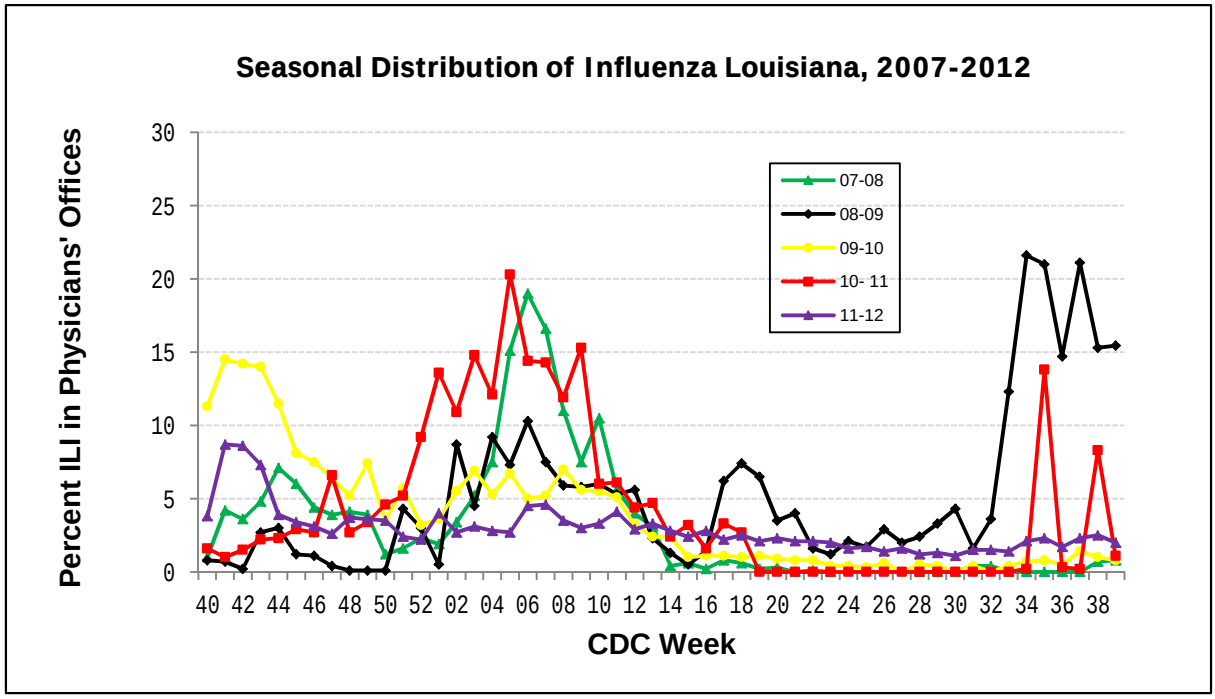
Page 2 : ILI Activity
Page 3: Louisiana Activity
Page 4: US Activity
Page 5: US Activity Maps

2012-2013 Season

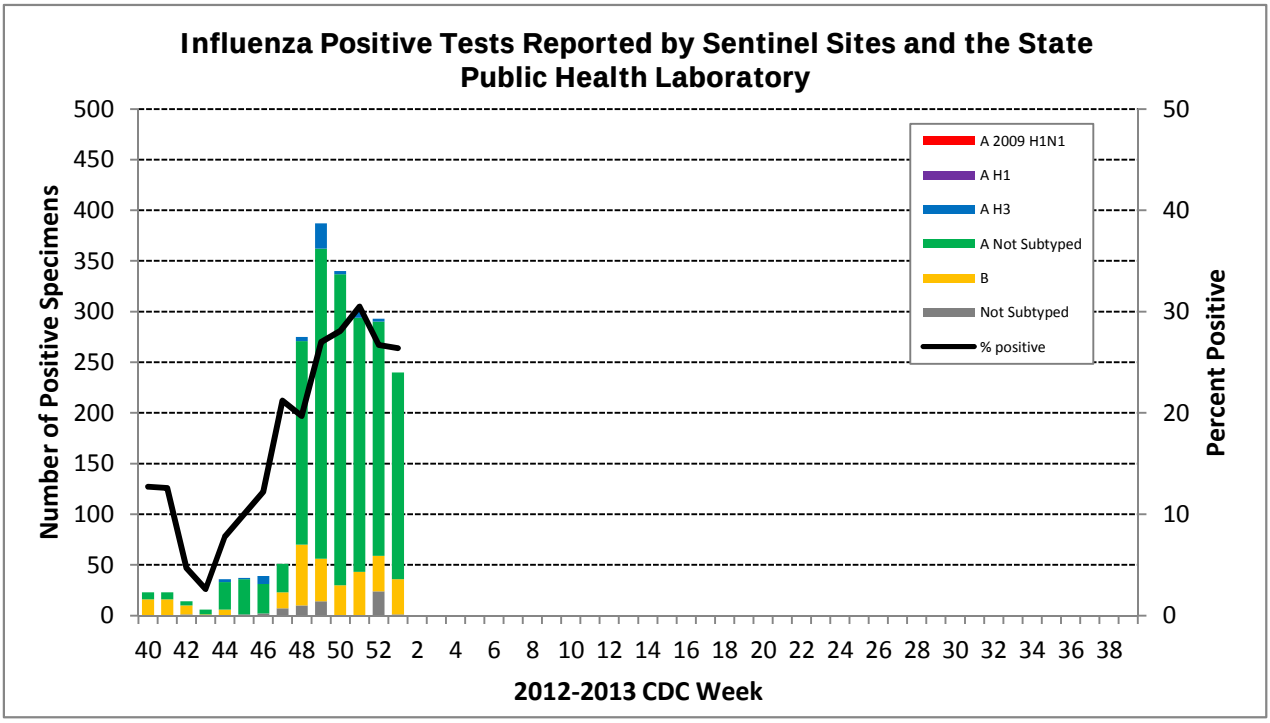
This graph shows the percentage of visits for ILI over the total number of visits for sentinel surveillance sites. This is the best approach to estimate the magnitude of influenza transmission. ILI counts do include some viral infections other than influenza, but experience over the last 50 years has 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.



Virologic Surveillance

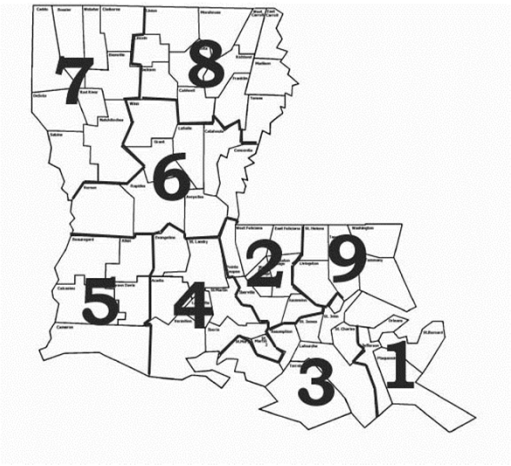


Sentinel site testing is based on rapid test results. All subtyping is done by PCR at the State Lab.

Geographical Distribution of ILI

Region	% ILI *
1	
2	
3	
4	
5	
6	
7	
8	
9	

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



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

2012-2013 Season

During week 1, influenza activity remained elevated in the U.S., but may be decreasing in some areas.

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

Two influenza-associated pediatric deaths were reported. One was associated with an influenza A (H3) virus and one was associated with an influenza A virus for which the subtype was not determined.

Proportion of outpatient visits for influenza-like illness (ILI) was 4.3%, which is above the national baseline of 2.2%.

	Week 1
Specimens tested	**12,876**
Positive specimens	**4,222 (32.8%)**
Positive specimens by type/subtype	
Influenza A	**3,369 (79.8%)**
A (2009 H1N1)	36 (1.1%)
A (subtyping not performed)	1,550 (46.0%)
A (H3)	1,783 (52.9%)
Influenza B	**853 (20.2%)**

Antiviral Resistance:

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2012

	Viruses tested (n)	Resistant Viruses, Number (%)	Viruses tested (n)	Resistant Viruses, Number (%)
		Oseltamivir		Zanamivir
Influenza A (H3N2)	600	0 (0.0%)	600	0 (0.0%)
Influenza B	230	0 (0.0%)	230	0 (0.0%)
2009 Influenza A (H1N1)	70	0 (0.0%)	48	0 (0.0%)

The majority of circulating viruses are susceptible to the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir; however, rare sporadic cases of oseltamivir-resistant 2009 influenza A (H1N1) and A (H3N2) viruses have been detected worldwide. Antiviral treatment with oseltamivir or zanamivir is recommended as early as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at greater risk for serious influenza-related complications. Additional information on recommendations for treatement and chemoprophylaxis of influenza virus infection with antiviral agents is available at http://www.cdc.gov/flu/antivirals/index.htm

Novel Influenza A Virus:

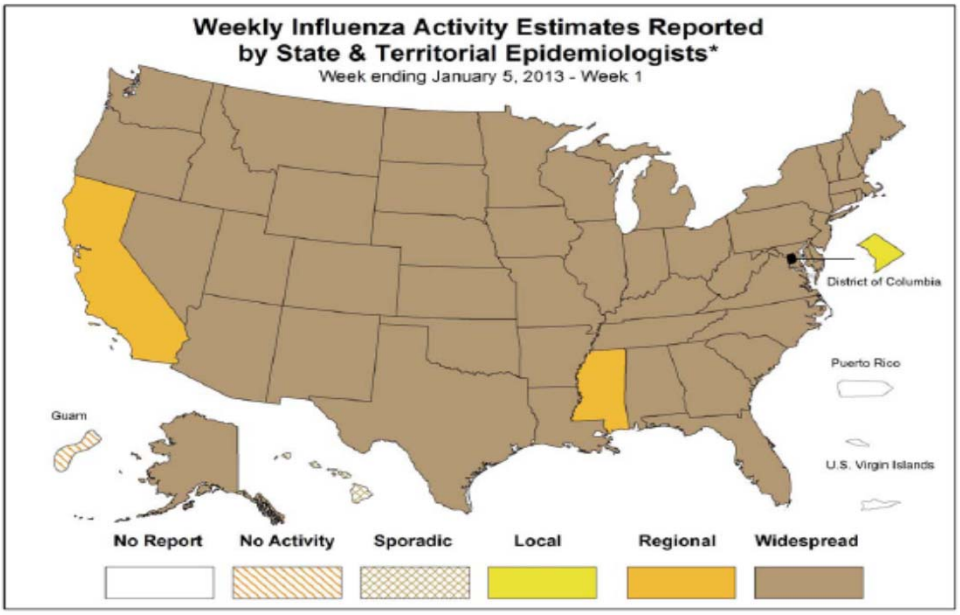
No new infections with novel influenza A viruses were reported to CDC during week 1. A total of 312 infections with variant influenza viruses (308 H3N2v viruses, 3 H1N2v viruses, and 1 H1N1v virus) have been reported from 11 states since July 2012. More information about H3N2v infections can be found at http://www.cdc.gov/flu/swineflu/h3n2v-cases.htm

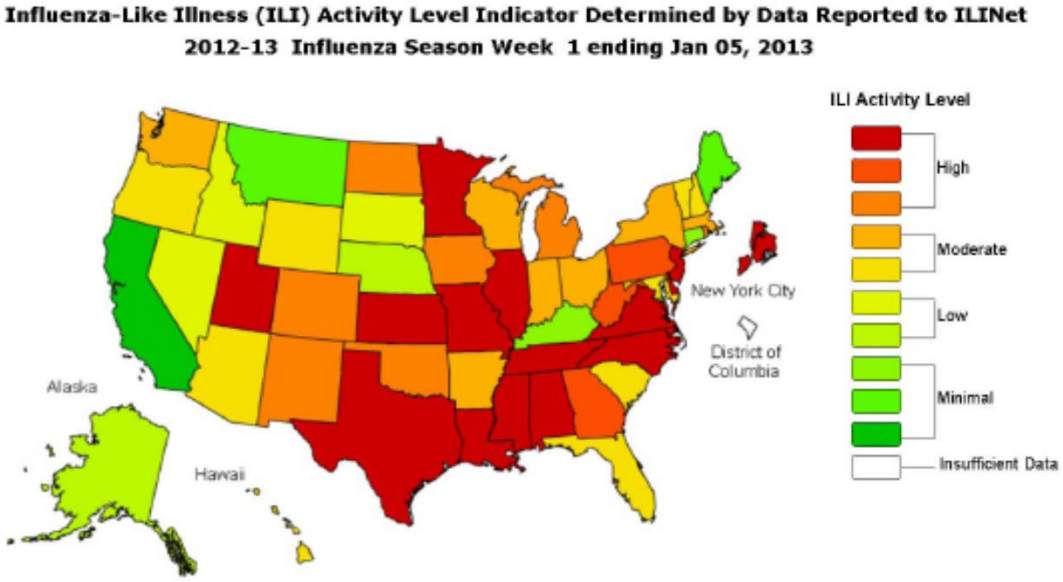
Antigenic Characterization:

99.4% of influenza A (H3N2) viruses antigenically characterized at CDC since October 1, 2012 have matched components of the 2012-2013 influenza vaccine for the Northern Hemisphere. 66.7% of influenza B viruses match the influenza B component of the 2012-2013 Northern Hemisphere influenza vaccine.

2012-2013 Season

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.