

# Influenza Surveillance Report

[www.infectiousdisease.dhh.louisiana.gov](http://www.infectiousdisease.dhh.louisiana.gov)

Week 4: 1/22/17 - 1/28/17

**Influenza activity continued to increase this week in Louisiana and is slightly above the regional baseline. The percent of influenza positives remains high at both clinical labs and the state public health laboratory. The most commonly reported other respiratory viruses are RSV and Rhino/Enterovirus.**

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 departments (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](mailto: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.

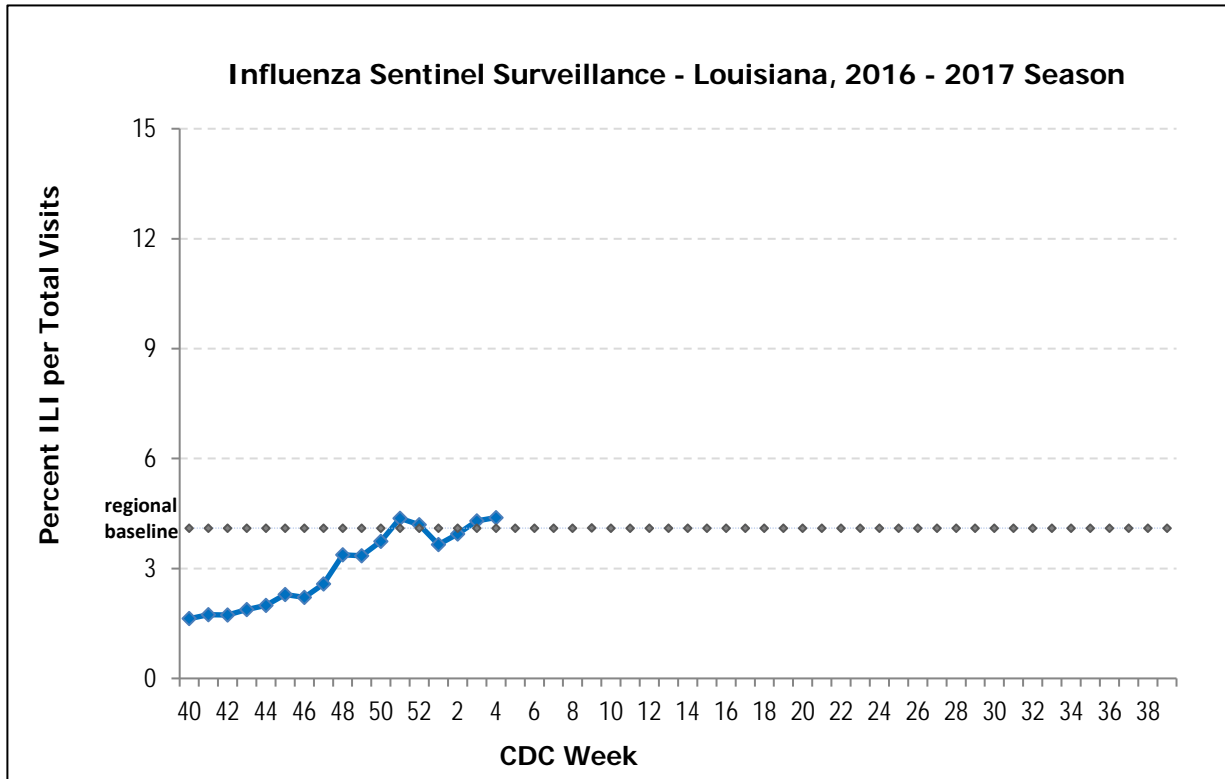


**Laboratory testing:** Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information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

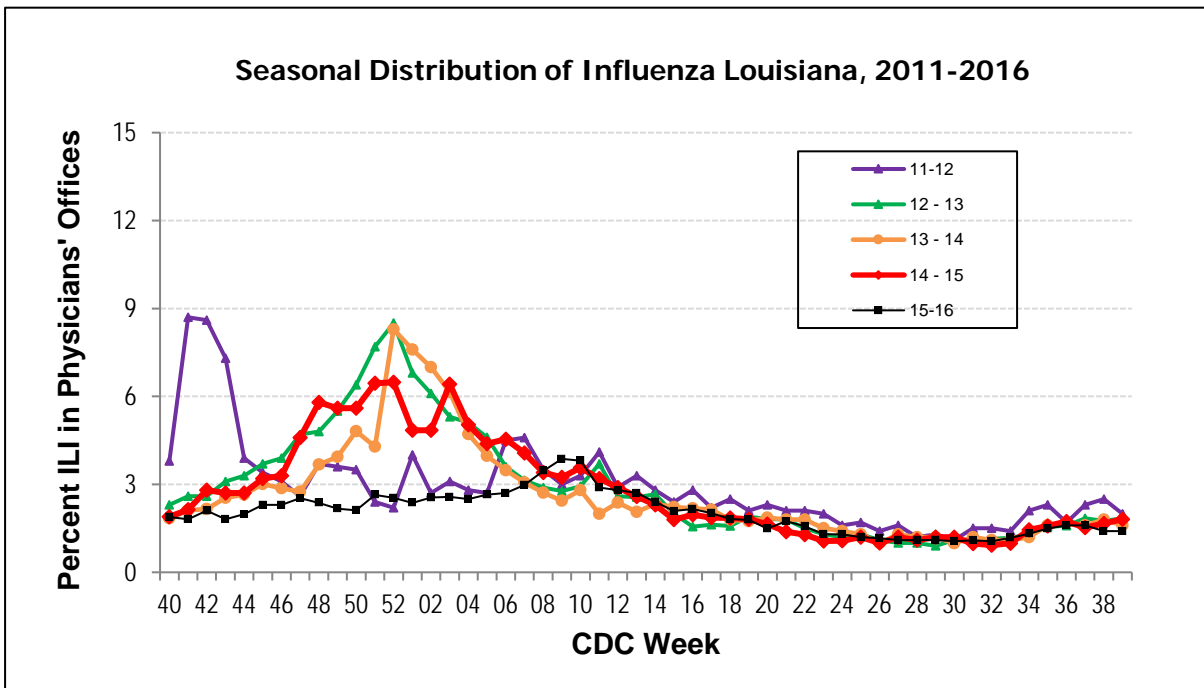
Page 2 : ILI Activity  
Page 3: Virologic Surveillance  
Page 4: Geographic Distribution  
Page 5-6: Regional & National Data

## 2016-2017 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.

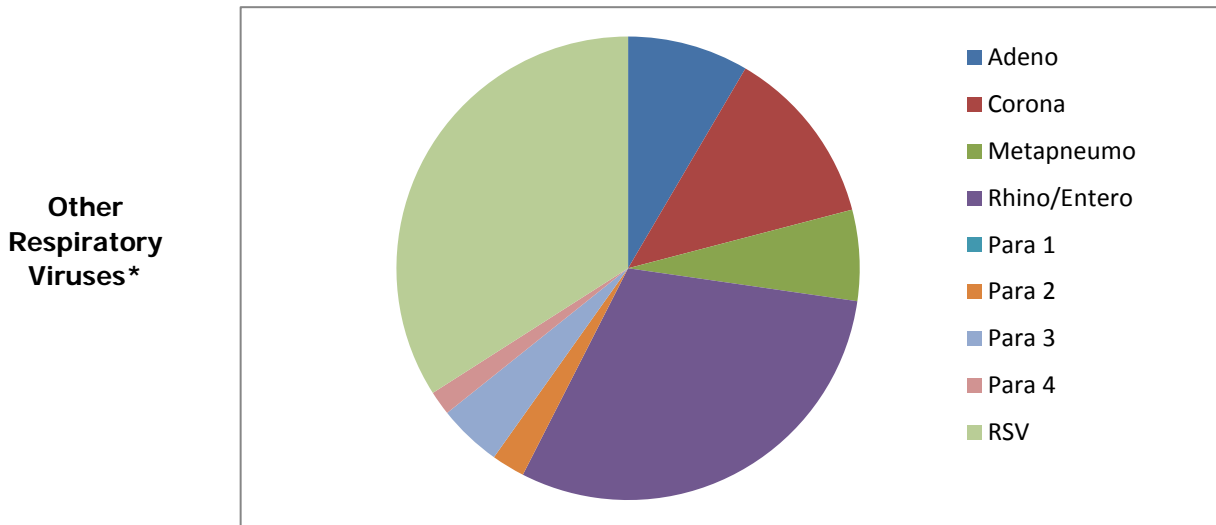
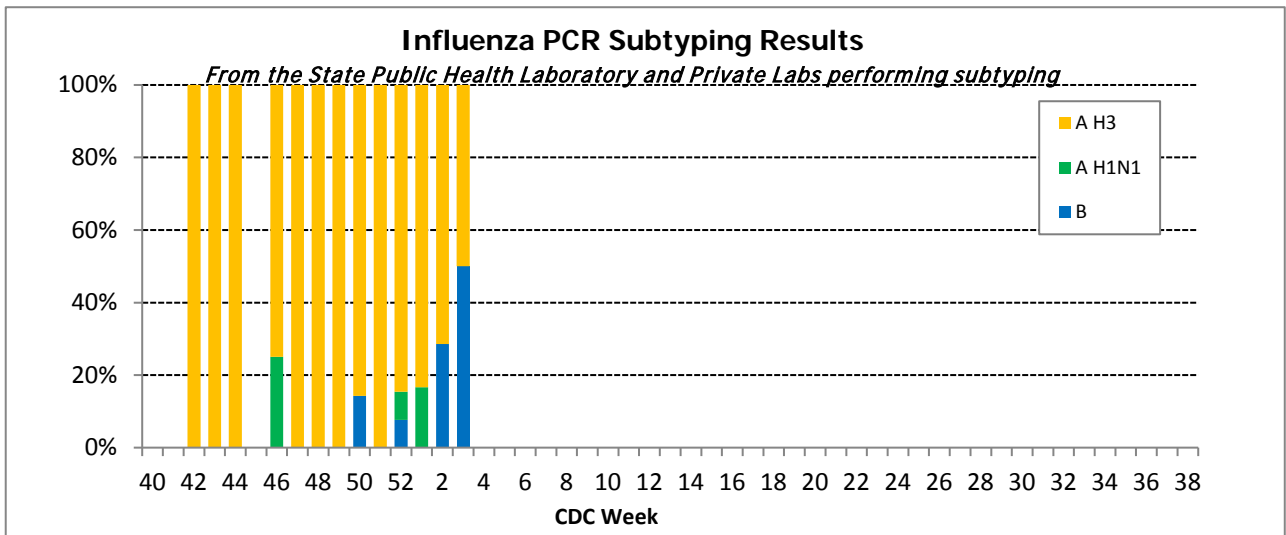
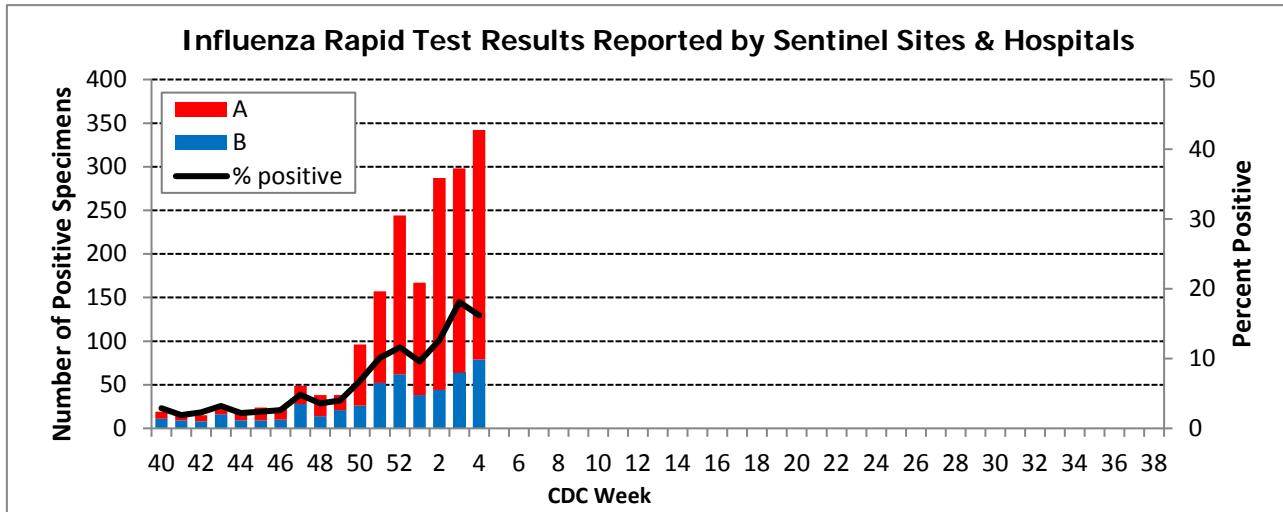


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



## 2016-2017 Season

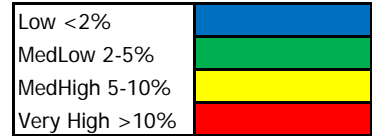
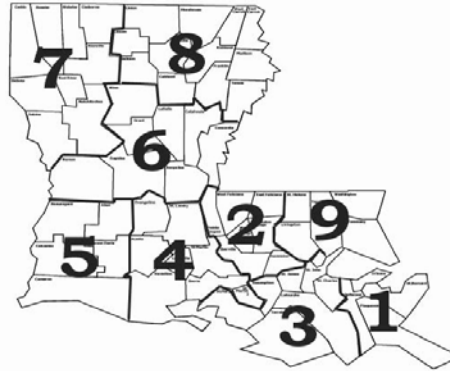
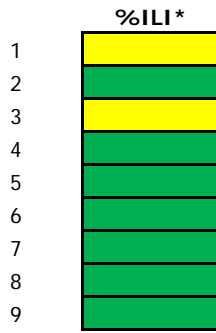
### Virologic Surveillance



\*Based on results from the State Public Health Laboratory Respiratory Virus Panel (RVP) Testing and other labs reporting RVP results over the last 4 weeks.

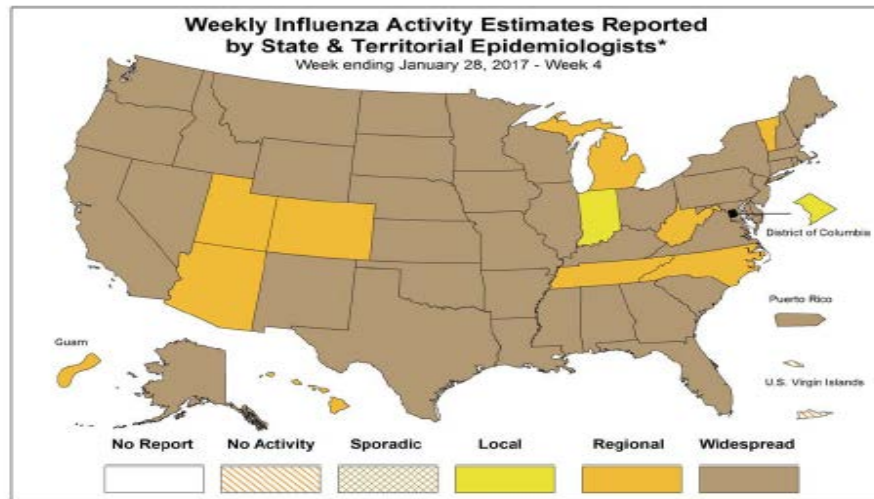
# 2016-2017 Season

## Geographical Distribution of ILI



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

## Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists



\* This map indicates geographic spread & does not measure the severity of influenza activity

## Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2016-17 Influenza Season Week 4 ending Jan 28, 2017

## ILINet Activity Indicator Map



## 2016-2017 Season

### National Surveillance

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

Due to data processing problems, the National Center for Health Statistics (NCHS) mortality surveillance data for the week ending January 14 (week 2) will not be published this week.

Seven influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 3.9%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

	Week 4	Data Cumulative since October 2, 2016 (week 40)
<b>No. of specimens tested</b>	26,658	358,278
<b>No. of positive specimens (%)</b>	4,786 (18.0%)	31,238 (8.7%)
<b>Positive specimens by type</b>		
<b>Influenza A</b>	4,227 (88.3%)	27,288 (87.4%)
<b>Influenza B</b>	559 (11.7%)	3,950 (12.6%)

### Public Health Laboratory Data

	Week 4	Data Cumulative since October 2, 2016 (week 40)
<b>No. of specimens tested</b>	2,280	33,325
<b>No. of positive specimens*</b>	1,327	12,967
<b>Positive specimens by type/subtype</b>		
<b>Influenza A</b>	1,239 (93.4%)	12,066 (93.1%)
A(H1N1)pmd09	21 (1.7%)	308 (2.6%)
H3	1,170 (94.4%)	11,550 (95.7%)
Subtyping not performed	48 (3.9%)	208 (1.7%)
<b>Influenza B</b>	88 (6.6%)	901 (6.9%)
Yamagata lineage	33 (37.5%)	321 (35.6%)
Victoria lineage	19 (21.6%)	317 (35.2%)
Lineage not performed	36 (40.9%)	263 (29.2%)

### HHS Surveillance Region Data:

Region 6 (AR, LA, NM, OK, TX)															
CDC Week	Public Health Labs	Public Health Specimens Tested	AUNK	AH1N1 pdm09	AH3N2	AH3N2v	B	BVic	BYam	Clinical Labs	Clinical Specimens Tested	Clinical Flu Positive	% Positive	A	B
201652	8	115	0	3	33	0	3	1	0	27	3881	295	7.60	224	71
201701	8	131	0	6	34	0	2	0	5	27	3709	335	9.03	260	75
201702	8	167	0	2	54	0	8	1	8	28	4119	533	12.94	436	97
201703	8	139	0	9	53	0	2	1	3	26	3925	602	15.34	494	108
201704	9	138	3	3	53	0	2	0	8	21	3211	473	14.73	389	84

### U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) 2016-2017 Influenza Season HHS Region 6 (AR, LA, NM, OK, and TX) (Baseline: 4.1%) Data as of Friday, February 3, 2017

CDC Week	# Sites Reporting	ILI 0-4 years	ILI 5-24 years	ILI 25-49 years	ILI 50-64 years	ILI 65 years	Total Patient ILI	Total Visits	% Unweighted ILI	% Weighted ILI
						and older				
201652	284	1160	803	851	447	302	3563	88929	4.0	4.2
201701	295	983	879	978	442	303	3585	94175	3.8	4.1
201702	292	968	1430	948	532	335	4213	101460	4.2	4.9
201703	283	1020	1825	1045	506	297	4693	101070	4.6	5.4
201704	273	1122	2010	1048	528	269	4977	98973	5.0	6.1

## 2016-2017 Season

### Antiviral Resistance:

#### Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2016

	Oseltamivir		Zanamivir		Peramivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A (H1N1)pdm09	75	0 (0.0)	75	0 (0.0)	75	0 (0.0)
Influenza A (H3N2)	572	0 (0.0)	572	0 (0.0)	455	0 (0.0)
Influenza B	147	0 (0.0)	147	0 (0.0)	147	0 (0.0)

**Antigenic Characterization:** CDC has antigenically characterized 419 influenza viruses [74 influenza A (H1N1)pdm09, 257 influenza A (H3N2), and 88 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### Influenza A Virus [331]

**A (H1N1)pdm09 [74]:** All 74 (100%) influenza A (H1N1)pdm09 viruses were antigenically characterized using ferret post-infection antisera as A/California/7/2009-like, the influenza A (H1N1) component of the 2016-2017 Northern Hemisphere vaccine.

**A (H3N2) [257]:** 248 of 257 (96.5%) influenza A (H3N2) viruses were antigenically characterized as A/Hong Kong/4801/2014-like, a virus that belongs in genetic group 3C.2a and is the influenza A (H3N2) component of the 2016-2017 Northern Hemisphere vaccine, by HI testing or neutralization testing. Among the viruses which reacted poorly with ferret antisera raised against A/Hong Kong/4801/2014-like viruses, 6 out of 9 (66.7%) are more closely related to A/Switzerland/9715293/2013, a virus belonging to genetic group 3C.3a.

#### Influenza B Virus [88]

**Victoria Lineage [32]:** 29 of 32 (90.6%) B/Victoria-lineage viruses were antigenically characterized using ferret post-infection antisera as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2016-2017 Northern Hemisphere trivalent and quadrivalent influenza vaccines.

**Yamagata Lineage [56]:** All 56 (100%) B/Yamagata-lineage viruses were antigenically characterized using ferret post-infection antisera as B/Phuket/3073/2013-like, which is included as an influenza B component of the 2016-2017 Northern Hemisphere quadrivalent influenza vaccines.