

## Influenza Surveillance Report

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

Week 7: 2/12/17 - 2/18/17

**Influenza activity remains high in Louisiana. 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 Rhino/Enterovirus and RSV.**

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

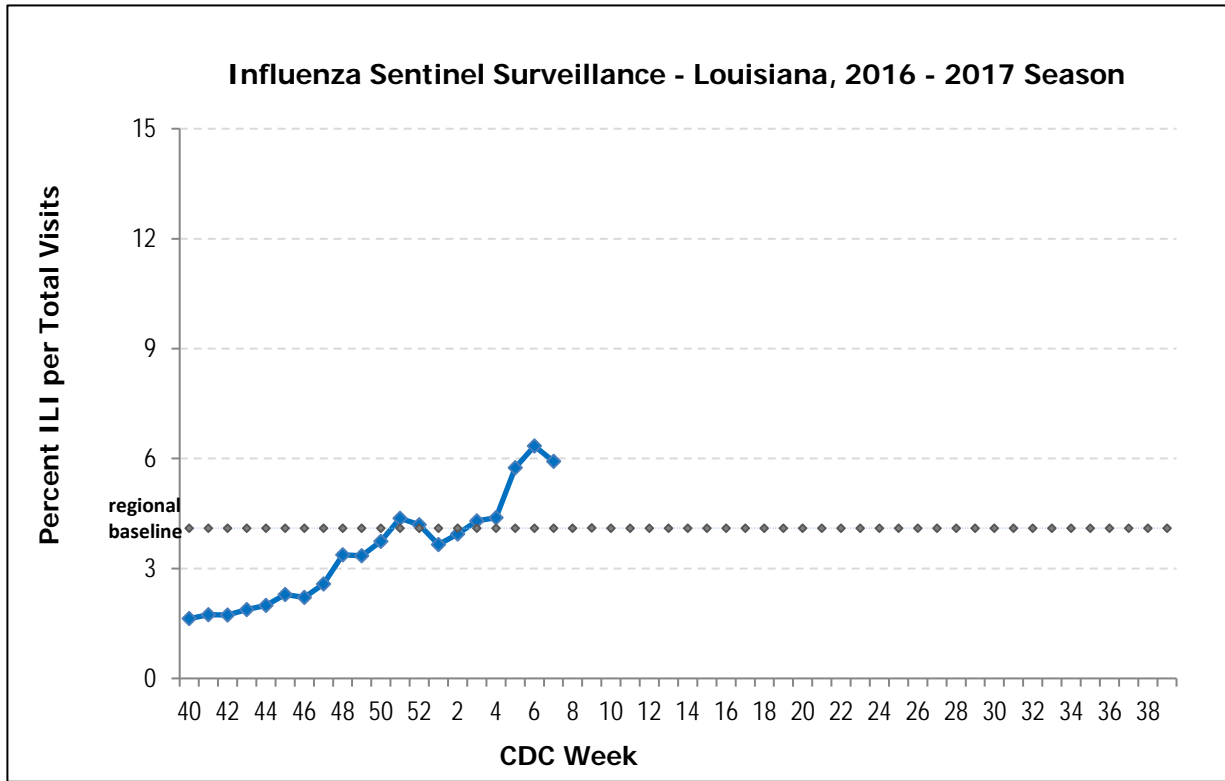
Page 3: Virologic Surveillance

Page 4: Geographic Distribution

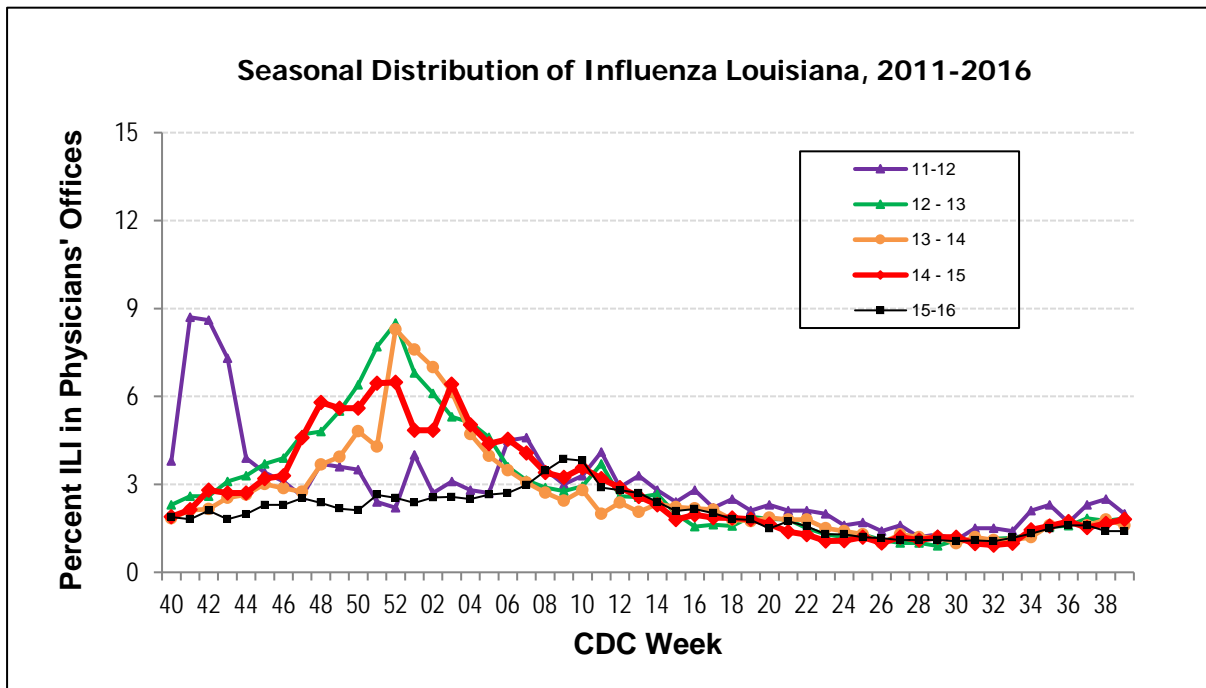
Page 5-6: Regional & National Data

## 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.

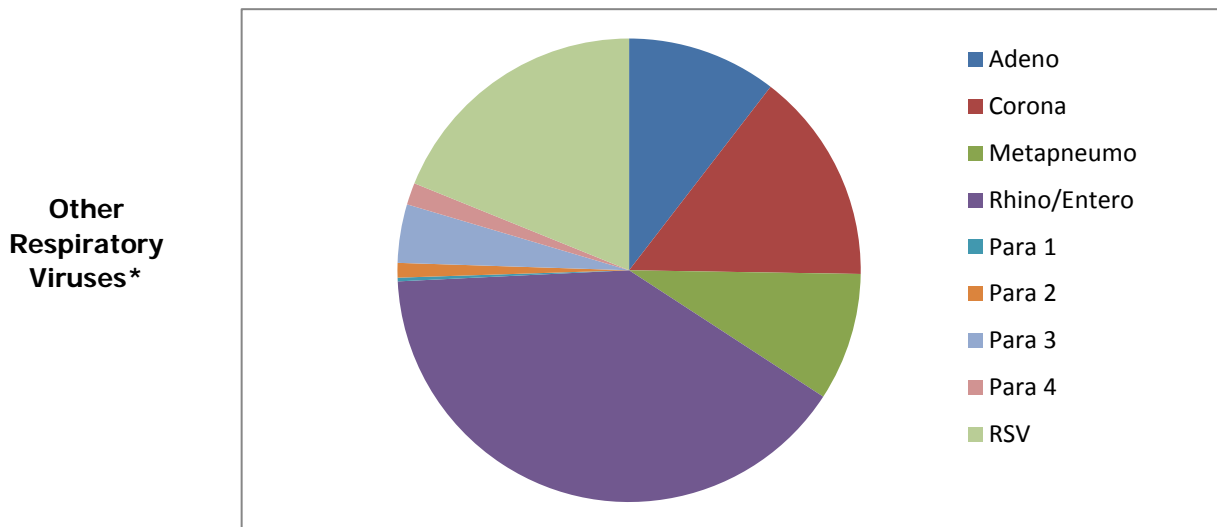
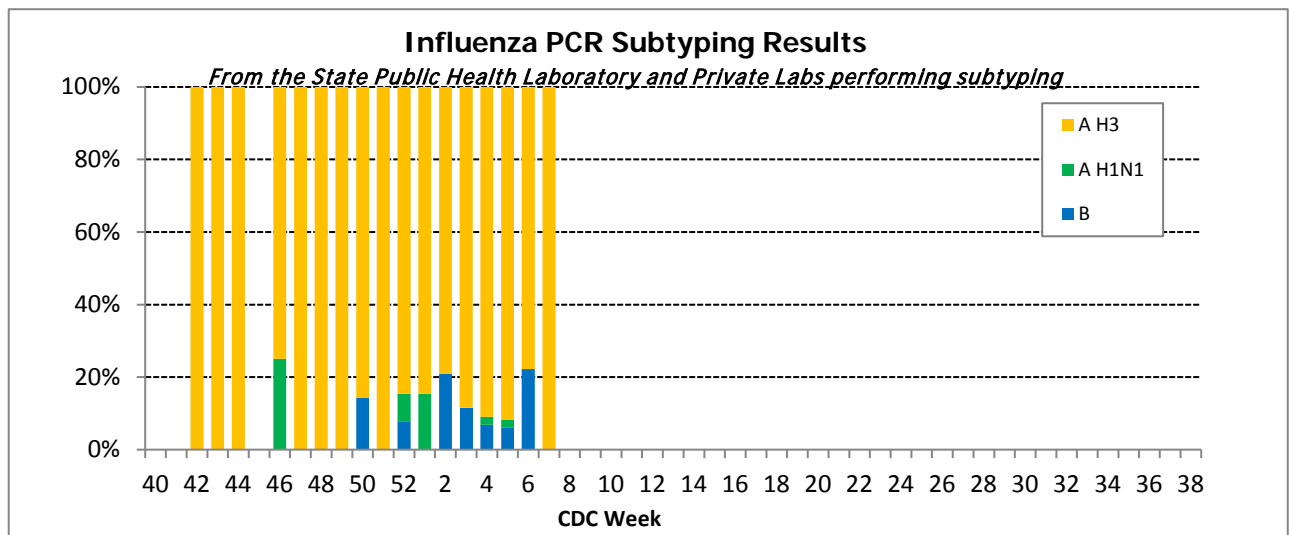
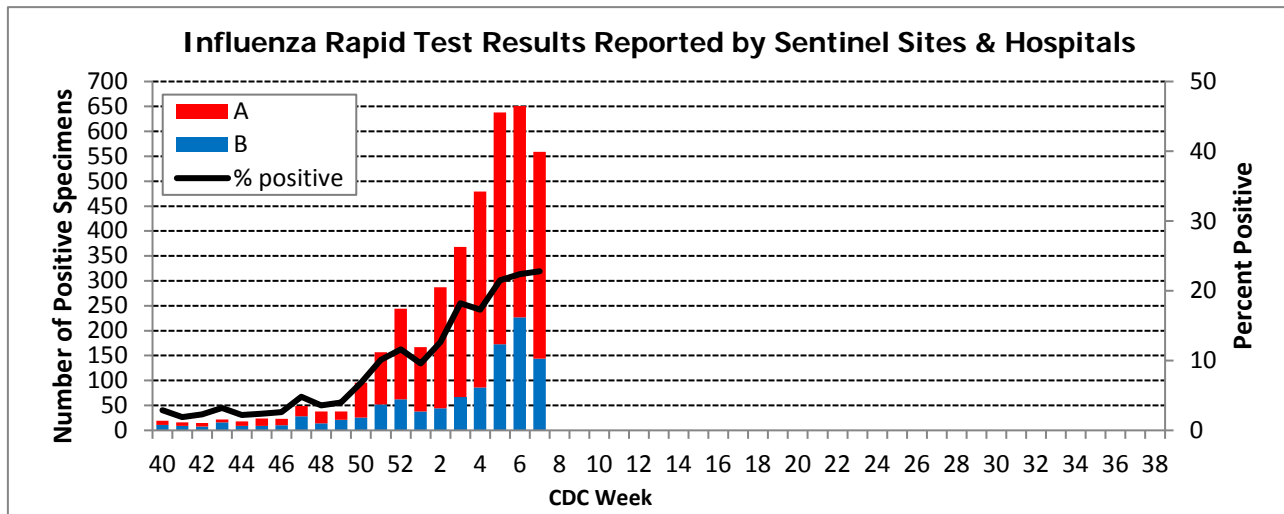


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



## 2016-2017 Season

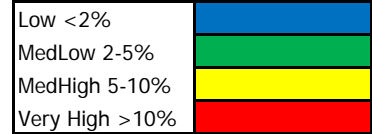
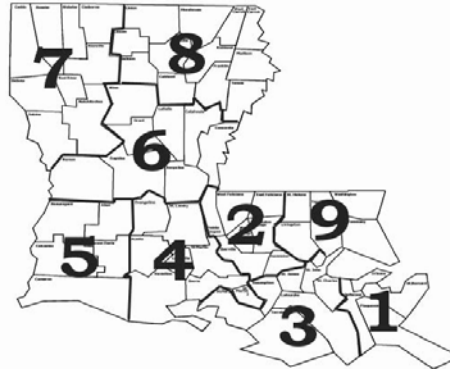
### Virologic Surveillance



\*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.

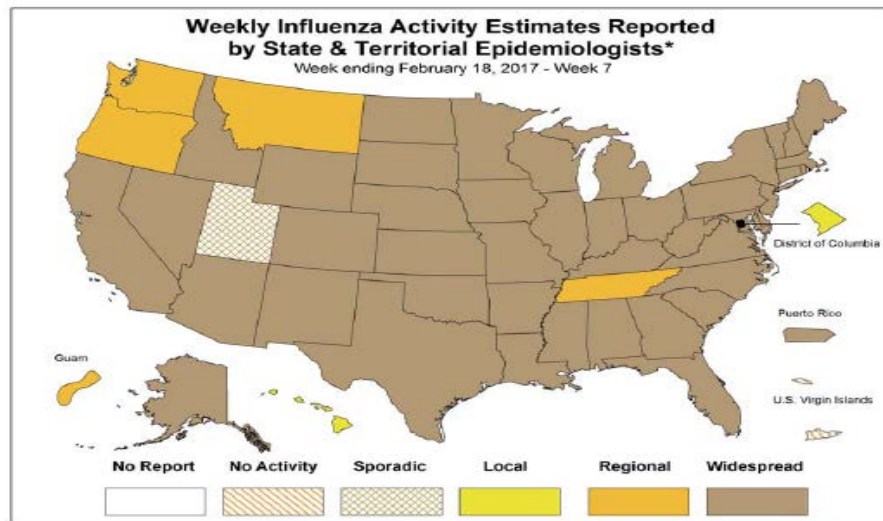
## 2016-2017 Season

### 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

### ILINet Activity Indicator Map

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2016-17 Influenza Season Week 7 ending Feb 18, 2017



## 2016-2017 Season

### National Surveillance

During week 7, influenza activity decreased slightly but remained elevated in the United States.

The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific threshold in the National Center for Health Statistic (NCHS) Mortality Surveillance System.

Five influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 4.8%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

	Week 7	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	34,517	491,306
No. of positive specimens (%)	8,272 (24.0%)	60,361 (12.3%)
<i>Positive specimens by type</i>		
Influenza A	6,506 (78.7%)	51,737 (85.7%)
Influenza B	1,766 (21.3%)	8,624 (14.3%)

### Public Health Laboratory Data

	Week 7	Data Cumulative since October 2, 2016 (week 40)
No. of specimens tested	2,196	48,363
No. of positive specimens*	1,247	21,970
<i>Positive specimens by type/subtype</i>		
Influenza A	1,044 (83.7%)	20,025 (91.1%)
A(H1N1)pmd09	32 (3.1%)	495 (2.5%)
H3	974 (93.3%)	19,237 (96.1%)
Subtyping not performed	38 (3.6%)	293 (1.5%)
Influenza B	203 (16.3%)	1,945 (8.9%)
Yamagata lineage	96 (47.3%)	868 (44.6%)
Victoria lineage	39 (19.2%)	621 (31.9%)
Lineage not performed	68 (33.5%)	456 (23.4%)

### HHS Surveillance Region Data:

**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 24, 2017**

CDC Week	# Sites Reporting	ILI 0-4 years	ILI 5-24 years	ILI 25-49 years	ILI 50-64 years	ILI 65 years and older	Total	%	%	
						Total	Patient Visits	Unweighted ILI	Weighted ILI	
201704	288	1178	2137	1072	542	278	5207	103444	5.0	6.1
201705	287	1413	3154	1464	674	397	7102	107646	6.6	8.2
201706	292	1541	3912	1914	901	536	8804	110951	7.9	10.0
201707	257	1258	3078	1710	771	412	7229	101507	7.1	8.8

#### 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
201704	9	289	1	5	124	0	3	2	17	28	4475	732	16.36	614	118
201705	9	337	2	4	143	0	4	2	12	29	5794	1315	22.70	1098	217
201706	9	321	0	4	154	0	3	2	9	29	7125	1827	25.64	1491	336
201707	7	221	1	2	76	0	#	2	5	23	4372	1041	23.81	854	187

## 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	136	0 (0.0)	136	0 (0.0)	136	0 (0.0)
Influenza A (H3N2)	836	0 (0.0)	836	0 (0.0)	683	0 (0.0)
Influenza B	288	0 (0.0)	288	0 (0.0)	288	0 (0.0)

**Antigenic Characterization:** CDC has antigenically characterized 678 influenza viruses [112 influenza A (H1N1)pdm09, 334 influenza A (H3N2), and 232 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### **Influenza A Virus [446]**

**A (H1N1)pdm09 [112]:** All 112 (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) [334]:** 323 of 334 (96.7%) 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, 8 out of 11 (72.7%) are more closely related to A/Switzerland/9715293/2013, a virus belonging to genetic group 3C.3a.

#### **Influenza B Virus [232]**

**Victoria Lineage [111]:** 102 of 111 (91.9%) 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 [121]:** All 121 (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.