

# Influenza Surveillance Report

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

Week 2: 1/8/17 - 1/14/17

**Influenza activity increased slightly this week in Louisiana and is just below the regional baseline. The percent of influenza positives remains high at both at 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.

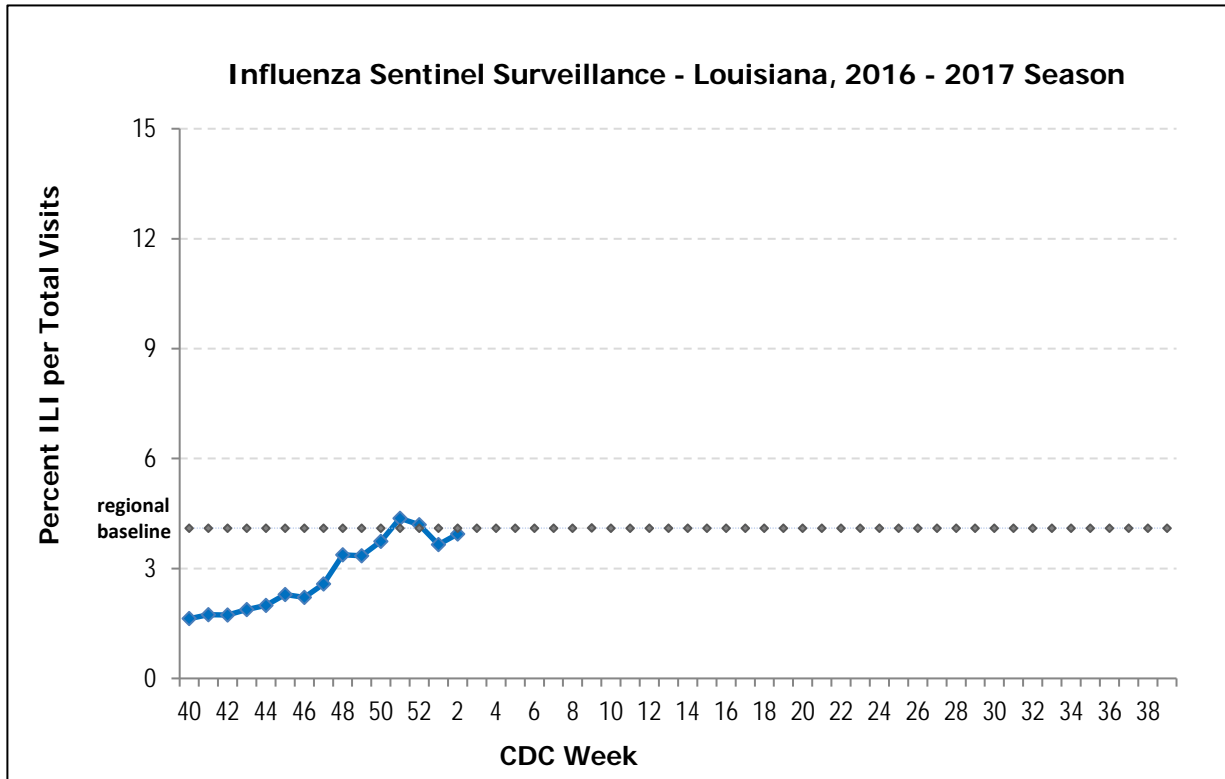


**Laboratory testing:** Not all sentinel sites have access to laboratory testing. However, many hospitals and physicians' offices do perform some influenza testing. Sites that test for influenza report the number of positive tests each week and the total number of tests performed each week. This information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

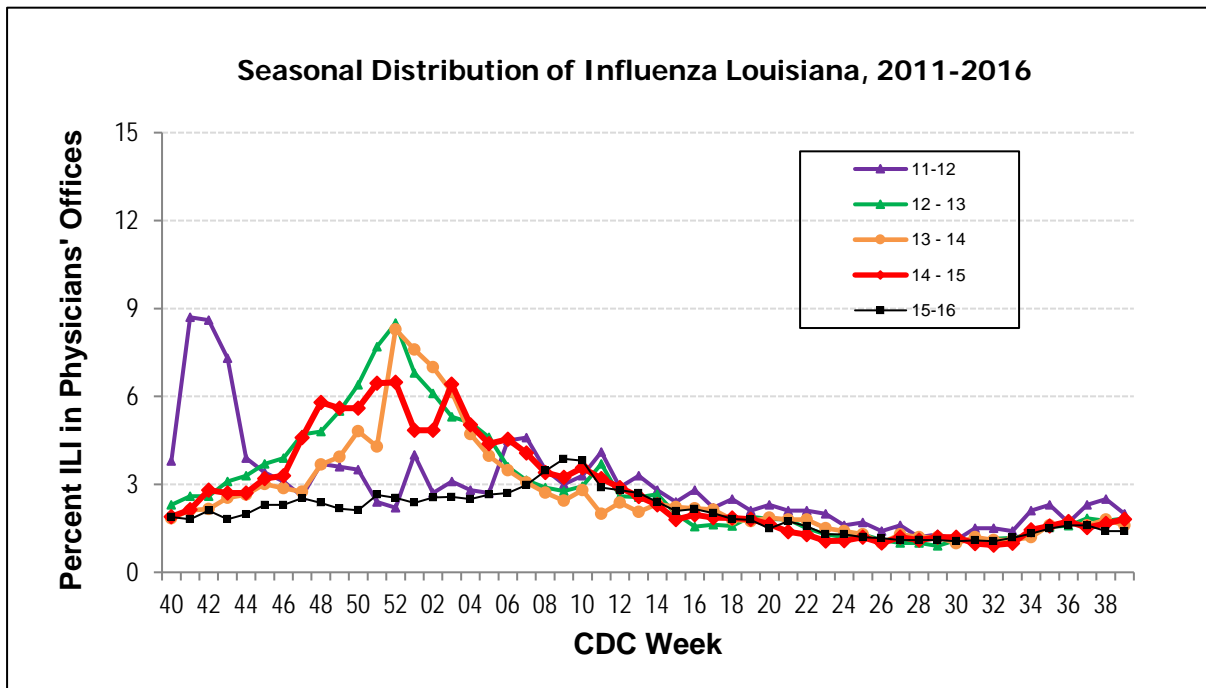
Page 2 : ILI Activity  
Page 3: Virologic Surveillance  
Page 4: Geographic Distribution  
Page 5-6: Regional & National Data

## 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.

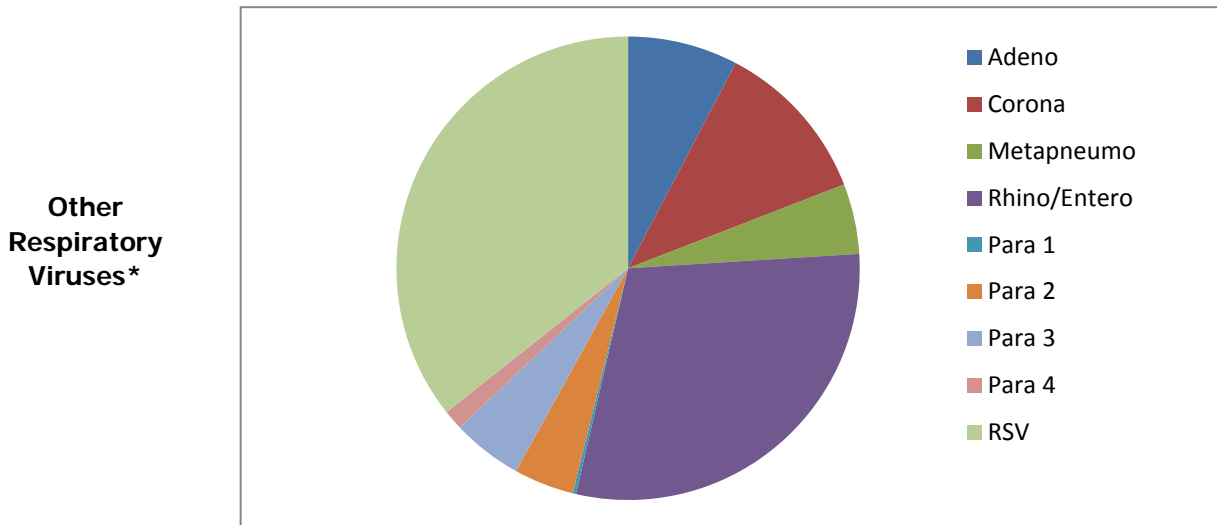
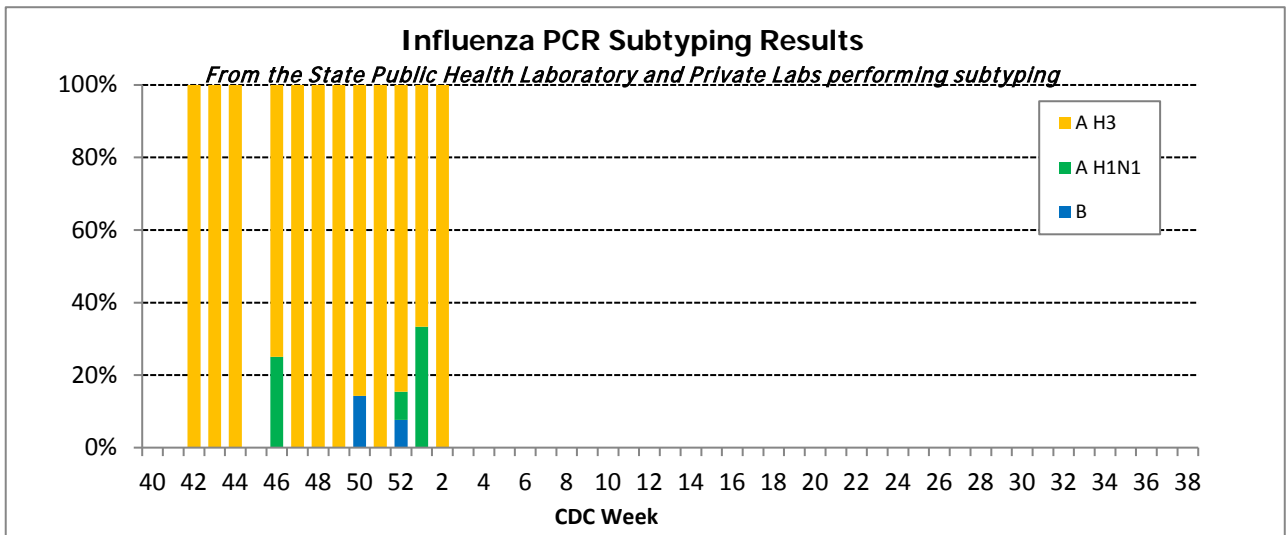
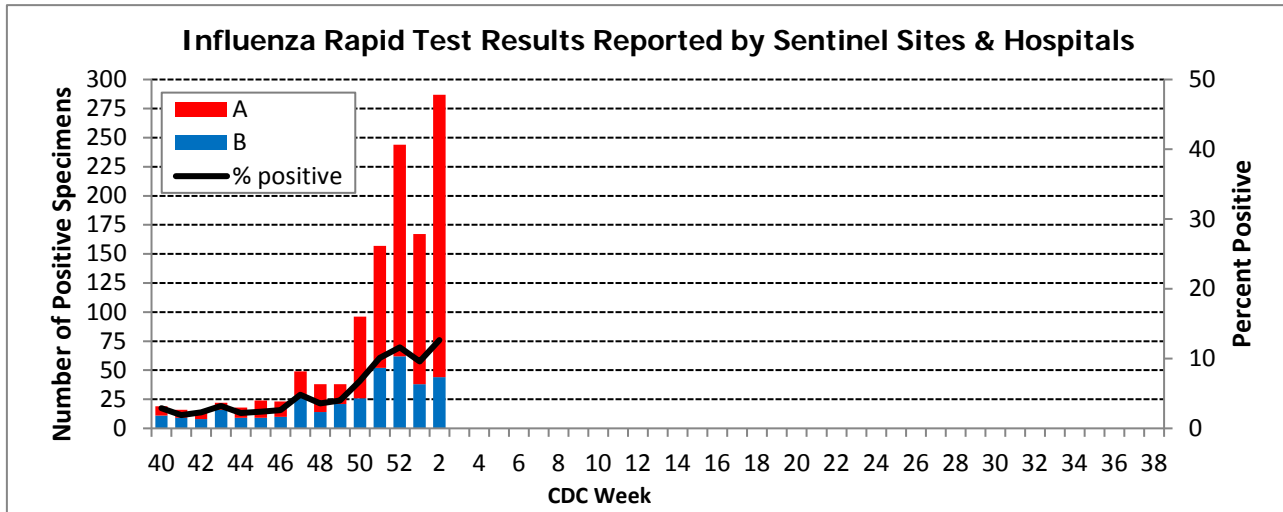


This graph shows the data on ILI surveillance among sentinel physicians' over the past 5 seasons to enable comparisons with previous years and better estimate the amplitude of this season's influenza transmission.



# 2016-2017 Season

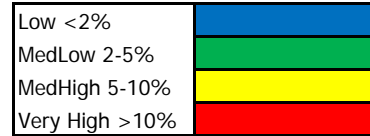
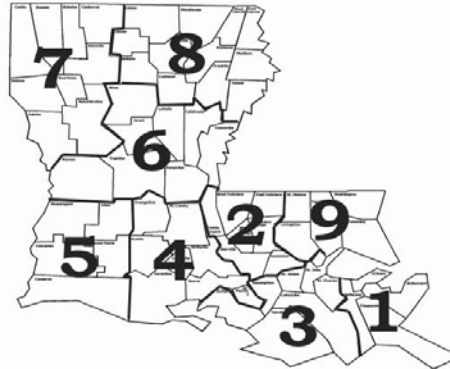
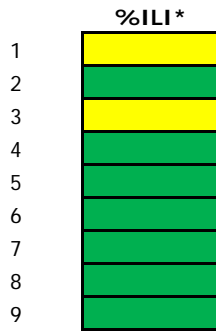
## Virologic Surveillance



\*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.

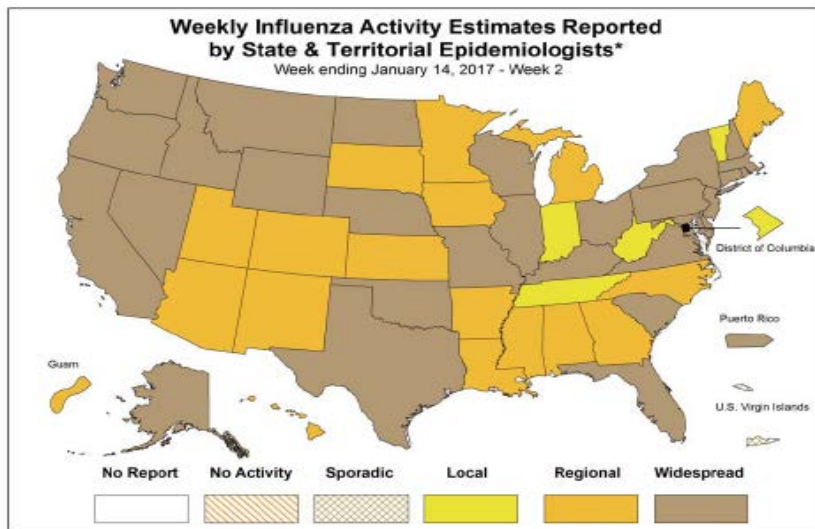
## 2016-2017 Season

### 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 2 ending Jan 14, 2017

### ILINet Activity Indicator Map



## 2016-2017 Season

### National Surveillance

During week 2, influenza activity increased in the United States.

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

Two influenza-associated pediatric deaths were reported.

Proportion of outpatient visits for influenza-like illness (ILI) was 3.3%, which is above the national baseline of 2.2%.

### Clinical Laboratory Data

|                                   | Week 2        | Data Cumulative since October 2, 2016 (week 40) |
|-----------------------------------|---------------|---|
| No. of specimens tested           | 27,805        | 295,808   |
| No. of positive specimens (%)     | 4,258 (15.3%) | 20,497 (6.9%)                                   |
| <i>Positive specimens by type</i> |               |   |
| Influenza A                       | 3,916 (92.0%) | 17,700 (86.4%)                                  |
| Influenza B                       | 342 (8.0%)    | 2,797 (13.6%)                                   |

### Public Health Laboratory Data

|   | Week 2      | Data Cumulative since October 2, 2016 (week 40) |
|---|-------------|---|
| No. of specimens tested                   | 1,761       | 24,708  |
| No. of positive specimens*                | 875         | 7,894   |
| <i>Positive specimens by type/subtype</i> |             |   |
| Influenza A                               | 824 (94.2%) | 7,326 (92.8%)                                   |
| A(H1N1)pmd09                              | 16 (1.9%)   | 213 (2.9%)                                      |
| H3  | 761 (92.4%) | 6,945 (94.8%)                                   |
| Subtyping not performed                   | 47 (5.7%)   | 188 (2.3%)                                      |
| Influenza B                               | 51 (5.8%)   | 568 (7.2%)                                      |
| Yamagata lineage                          | 21 (41.2%)  | 177 (31.2%)                                     |
| Victoria lineage                          | 10 (19.6%)  | 217 (38.2%)                                     |
| Lineage not performed                     | 20 (39.2%)  | 174 (30.6%)                                     |

### 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  |
|----------|--------------------|--------------------------------|------|-------------|-------|--------|---|------|------|---------------|---------------------------|-----------------------|------------|-----|----|
| 201651   | 9                  | 99                             | 0    | 1           | 24    | 0      | 0 | 1    | 1    | 28            | 3250                      | 249                   | 7.66       | 179 | 70 |
| 201652   | 8                  | 109                            | 0    | 3           | 32    | 0      | 3 | 1    | 0    | 26            | 3759                      | 288                   | 7.66       | 217 | 71 |
| 201701   | 8                  | 107                            | 0    | 6           | 28    | 0      | 4 | 0    | 3    | 25            | 3590                      | 329                   | 9.16       | 256 | 73 |
| 201702   | 7                  | 70                             | 0    | 1           | 21    | 0      | 2 | 0    | 3    | 23            | 3750                      | 512                   | 13.65      | 419 | 93 |

#### 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, January 20, 2017

|          |                   |               |                |                 |                 | ILI 65 years and older | Total ILI | Total Patient Visits | % Unweighted ILI | % Weighted ILI |
|----------|-------------------|---------------|----------------|-----------------|-----------------|------------------------|-----------|----------------------|------------------|----------------|
| 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 ILI | Total Patient Visits | % Unweighted ILI | % Weighted ILI |
| 201651   | 292               | 1121          | 1113           | 750             | 394             | 251                    | 3629      | 94326                | 3.8              | 3.9            |
| 201652   | 277               | 1151          | 795            | 849             | 447             | 302                    | 3544      | 88302                | 4.0              | 4.2            |
| 201701   | 286               | 968           | 871            | 978             | 442             | 302                    | 3561      | 92986                | 3.8              | 4.2            |
| 201702   | 272               | 907           | 1348           | 916             | 495             | 296                    | 3962      | 97332                | 4.1              | 4.8            |

## 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 | 59                       | 0 (0.0)                       | 59                       | 0 (0.0)                       | 59                       | 0 (0.0)                       |
| Influenza A (H3N2)      | 385                      | 0 (0.0)                       | 385                      | 0 (0.0)                       | 319                      | 0 (0.0)                       |
| Influenza B             | 101                      | 0 (0.0)                       | 101                      | 0 (0.0)                       | 101                      | 0 (0.0)                       |

**Antigenic Characterization:** CDC has antigenically characterized 237 influenza viruses [37 influenza A (H1N1)pdm09, 140 influenza A (H3N2), and 60 influenza B viruses] collected by U.S. laboratories since October 1, 2016.

#### Influenza A Virus [177]

**A (H1N1)pdm09 [37]:** All 37 (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) [140]:** 133 of 140 (95.0%) 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 7 (85.7%) are more closely related to A/Switzerland/9715293/2013, a virus belonging to genetic group 3C.3a.

#### Influenza B Virus [60]

**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 [28]:** All 28 (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.