# Summit County Public Health
# Influenza Surveillance Report
2016 – 2017 Season

**Report # 17**

Flu Surveillance **Weeks 17 & 18** (Beginning 1/29/2017- 2/5/2017)

Centers for Disease Control and Prevention **Weeks 5 & 6**

***NOTE:*** *There has been an error in reporting confirmed* ***acute hospitalization cases*** *for Summit County in our reports sent out in past. This report will have an additional topic addressing influenza-associated hospitalization in Summit County till date.*

**Summit County Surveillance Data:**

In Week 18 of influenza surveillance, influenza-related activity continued to **increase** in Summit County.

**Table 1: Overall Influenza Activity Indicators in Summit County by Week**

| | Week 5 N (%)* | Week 6 N (%)* | Percent change from previous week[a] | Number of weeks increasing or decreasing |
|---|---|---|---|---|
| **Lab Reports** | | | | |
| Test Performed | 503 | 615 | ↑22.3 | ↑1 |
| Positive Tests (Number and %) | 74(14.7) | 136(22.1) | ↑50.3[b] | ↑3 |
| Influenza A (Number and %) | 61(82.4) | 114(83.8) | ↑1.7[b] | ↑2 |
| Influenza B (Number and %) | 13(17.6) | 22(16.2) | ↓7.9[b] | ↓2 |
| **Acute care hospitalization for Influenza ILI reports** | 17 | 27 | -- | -- |
| Long-term Care ILI | 0 | 0 | -- | -- |
| Community-based Care Providers | 0 | 0 | -- | -- |
| Physician Offices | 0 | 0 | -- | -- |
| **Pharmacy Prescriptions** | | | | |
| Amantidine | 1 | 2 | ↑100.0 | ↑1 |
| Rimantidine Flumadine | 0 | 0 | -- | -- |
| Relenza | 0 | 0 | -- | -- |
| Oseltamivir Tamiflu | 14 | 26 | ↑85.7 | ↑2 |
| *Total* | *15* | *28* | ↑86.7 | ↑2 |
| **Schools**** | 1760(16.5) | 2016(18.9) | ↑14.5[b] | ↑1 |
| **Deaths** | | | | |
| Influenza associated | 0(0.0) | 1(7.1) | ↑100.0 | ↑1 |
| Pneumonia associated | 14(100.0) | 13(92.8) | ↓7.1 | ↓1 |
| **Emergency room visits (EpiCenter)***** | | | | |
| Constitutional Complaints | 598(9.3) | 677(10.0) | ↑7.5[b] | ↑1 |
| Fever and ILI | 110(1.7) | 127(1.9) | ↑11.8[b] | ↑2 |

* N and % are reported when available

**Percent is from total number of students enrolled between all schools. WK5 and WK6 (n = 10,688).

***Percent is from total number of emergency room interactions

[a] Percentages should be interpreted with caution. Small changes in number can result in big changes in percent.

[b] This percent change is the difference in percent (i.e., the percent change in prevalence). It is not the percent change in the number of tests, number of school absences, number of deaths, etc.)

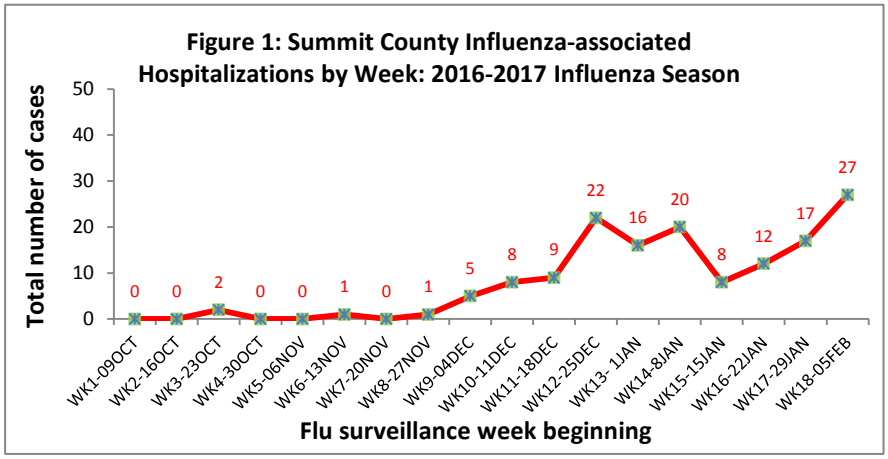
**Lab reports:** During MMWR WK6 of surveillance, Summit County labs performed 615 tests, of which 114 tested positive for influenza A virus and 22 tested positive for Influenza B. Compared to WK5, there was a 22% increase in tests performed, with 50% increase in positive tests for influenza A compared to WK5.

There were no reported new cases for **community-based care providers, physicians' offices** and **long–term care facilities** in WK6.

**Pharmacies** dispensed 15 anti-viral prescriptions in WK5 and 28 prescriptions in WK6 which was an increase by 87%.

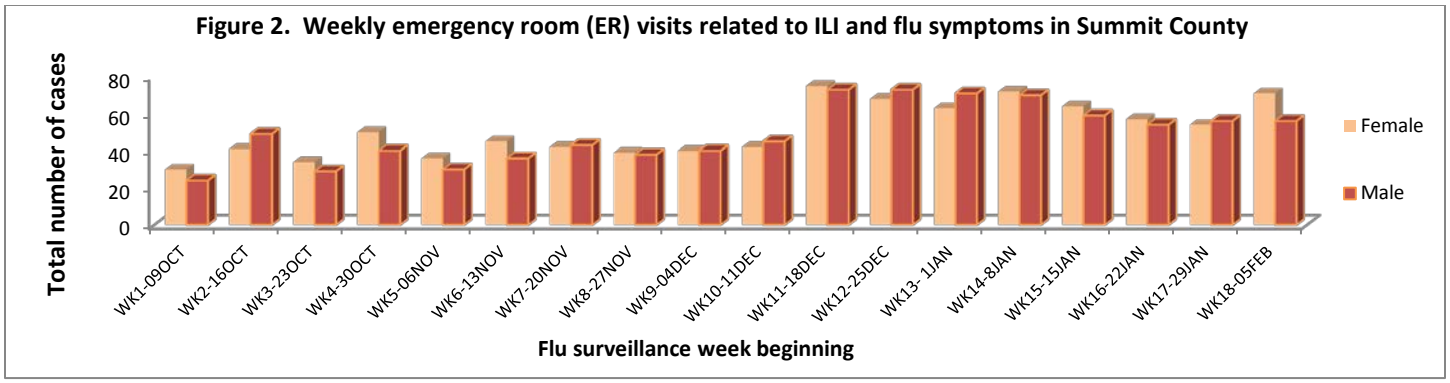
**School** absenteeism includes absences regardless of reason. There was 14.5% increase in school absenteeism in WK6 when compared to WK5.

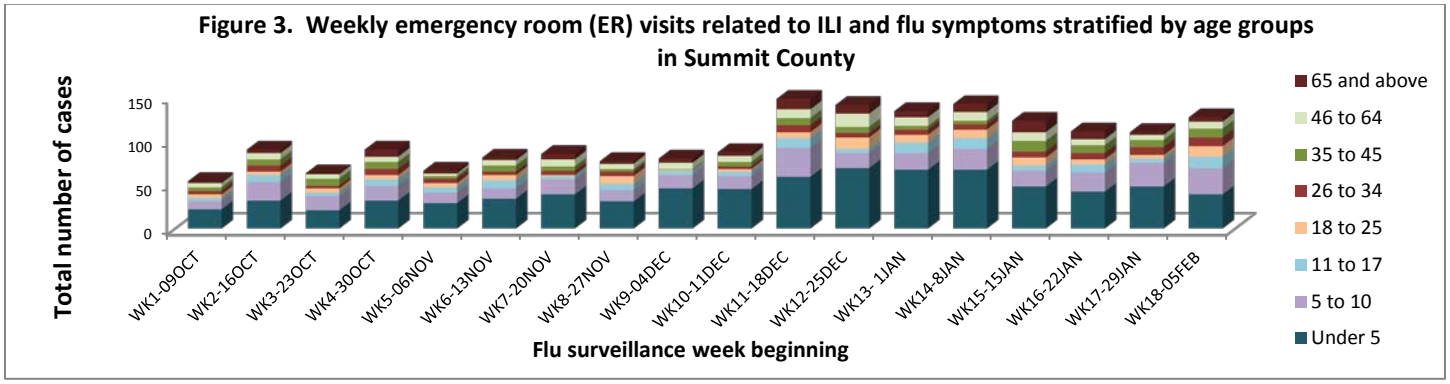
There was one reported **death** related to influenza and 13 deaths related to Pneumonia in WK6.




**Acute care hospitalization:** Influenza-associated hospitalization cases in Summit county is increasing. In WK6 there were 27 confirmed influenza-associated hospitalizations which is an increase by 58% when compared to WK5. **Figure 1** on left displays weekly confirmed hospitalization count for Summit County (**cumulative count = 148**)

**Epicenter** reported increased proportions of **emergency room visits** for constitutional complaints (increased by 7.5%) and increased proportions for ILI / fever cases (increased by 11.8%) in WK6 compared to WK5. Figures 1 and 2 displays the weekly number of ER visits related to ILI and flu symptoms, stratified by gender and age groups for Summit County (influenza surveillance 2016-2017).



**Ohio Surveillance Data** (Ohio Department of Health (ODH): Weeks beginning Jan 29th, 2017 and Feb 5th ,2017)

Influenza activity in Ohio during WK6 was **widespread**. There were 396 influenza-associated hospitalizations in WK5 and 576 in WK6. The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016–2017 season was **2,647** which have been **above the seasonal threshold**.

**Table 2: Statewide Influenza-Associated Hospitalization Counts**

| CDC Week | Central | East Central | Northeast | Northwest | Southeast | Southwest | West Central | Total | Percent change from previous week | Number of weeks increasing or decreasing |
|---|---|---|---|---|---|---|---|---|---|---|
| **5** | 40 | 121 | 88 | 60 | 18 | 18 | 51 | 396 | ↑31.2% | ↑**11** |
| **6** | 79 | 141 | 99 | 100 | 32 | 43 | 82 | 576 | | |

During WK5 and WK6, public health surveillance data sources indicated increased activity for ILI in outpatient settings. Emergency room activity and the percentage of fever and ILI specified ED visits in Ohio have continued to increase. Reported constitutional complaints and fever/ILI are provided in Table 3.

**Table 3: State Surveillance Emergency Room Visits for Influenza Activity by CDC Week**

| | Week 5 N (%)* | Week 6 N (%)* | Percent change from previous week** | Number of weeks increasing or decreasing |
|---|---|---|---|---|
| **Emergency room visits (EpiCenter)** | | | | |
| Constitutional Complaints | 14,002(10.4) | 17,041(11.4) | ↑9.6[b] | ↑**4** |
| Fever and ILI | 3,423(2.5) | 4343(2.9) | ↑16.0[b] | ↑**4** |

* Percentages are the percent of emergency room visits that are for constitutional complaints or fewer and ILI
** Percentages should be interpreted with caution. Small changes in numbers can result in big changes in percent.

- There were **305** confirmed positive tests for influenza A (H3N2); 2 for Influenza A/pdmH1N1 and **32** for influenza B at the ODH lab (**n = 486 tests**).
- There were **three** pediatric **influenza associated mortality** during the 2016-2017 season.
- No **novel influenza A virus** infections have been reported.

**National Surveillance** (Centers for Disease Control and Prevention (CDC): Week beginning Feb 5th, 2017)

National influenza activity continued to **increase** during WK6 in the United States.

- The most frequently identified influenza virus was influenza A, with influenza A (H3N2) predominating. Details on the result of lab test for WK5 and WK6 are provided in Table 4.[ii]

**Table 4: CDC update on results from clinical laboratories**

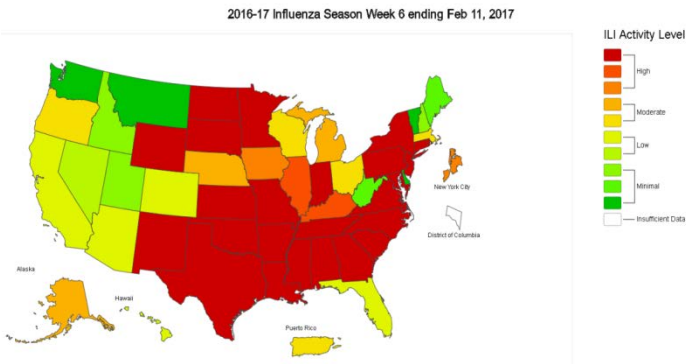
| | Week 5 N (%)* | Week 6 N (%)* | Percent change from previous week [a] | Number of weeks increasing or decreasing |
|---|---|---|---|---|
| Test Performed | 27,409 | 35,098 | ↑28.0 | ↑**3** |
| Positive Tests (Number and %) | 5,722(20.9) | 8,498 (24.2) | ↑15.8[b] | ↑**2** |
| *Influenza A (Number and %)* | *5,017(87.7)* | *7,079 (83.3)* | ↓5.0[b] | ↓**4** |
| *Influenza B (Number and %)* | *705(12.3)* | *1,419 (16.7)* | ↑35.8[b] | ↑**4** |

[a] Percentages should be interpreted with caution. Small changes in numbers can result in big changes in percent.
[b] This percent change is the difference in percent (i.e., the percent change in prevalence). It is not the percent change in the number of tests)

- **Nine** influenza associated pediatric deaths were reported during WK6 (6 deaths: influenza A (H3) virus; 2 death: influenza A (H1N1) pdm09 virus; and 1 death: influenza B virus). Total influenza-associated pediatric deaths for 2016-2017 = **29**)
- The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016–2017 season was **8,222**.
- Outpatient visits for ILI was 5.2% - **above** the national baseline of 2.2%.

**National Influenza-Like Illness (ILI) Activity:**

In WK6, all 10 regions reported ILI at or above their region-specific baseline levels. New York City and 28 states experienced high ILI activity; Puerto Rico and seven states experienced moderate ILI activity; five states experienced low ILI activity; nine states experienced minimal ILI activity; and the District of Columbia had insufficient data *(refer to figure below)*.




**Nationwide Geographic Spread of Influenza:**

In WK6, The geographic spread of influenza in Puerto Rico and 46 states was reported as widespread; Guam and four states reported regional activity; the District of Columbia reported local activity; and the U.S. Virgin Islands reported sporadic activity.

**Global Surveillance** (World Health Organization, Feb 20th, 2017)

- The World Health Organization report is issued every two weeks. This report includes updates from the WHO Influenza Update N° 283, published on Feb 20th, 2017, based on data up to Feb 5th, 2017.[ii]
- Influenza activity continued to **increase** in the temperate zone of the northern hemisphere. East Asia and Europe have already peaked and were reporting decreasing trends.
  - **North America:** Influenza activity and ILI levels continued to increase with influenza A (H3N2) virus predominating. Increased ILI illnesses continued to be reported in the United States and Mexico, whereas in Canada, influenza activity continued to decrease.
  - **Europe:** Influenza activity remained elevated, with influenza A (H3N2) virus being the most predominant subtype. Most of the countries reported stable or decreasing trends compared with previous weeks.
  - **Asia:** Influenza activity appeared to be decreasing in most of the countries. India and Sri Lanka reported a sharp increase in influenza activity.
  - **Northern Africa:** Influenza activity seemed to have peaked.
  - **West Africa:** Influenza continued to be detected in Ghana with B viruses dominating.

***About this report:*** *Reporting agencies include labs, hospitals, long-term care and community-based care providers, physician offices, pharmacies, and schools. Agencies are distributed throughout Summit County and report different indicators of flu activity including total lab tests, numbers of positive tests and type, antiviral prescriptions filled, school absences, and influenza like illness (ILI). Hospitalizations are lab confirmed for influenza and are obtained from the Ohio Disease Reporting System. Number of deaths associated with influenza and pneumonia are gathered from the Summit County Office of Vital Records death listings. Emergency room visits for complaints related to influenza are obtained by syndromic surveillance system (Epicenter).*

Reporting from participants may not be complete each week. Numbers may change as updated reports are received. For questions, please contact Sunita Shakya, MPH ▪ Summit County Public Health Epidemiologist ▪ sshakya@schd.org ▪ 330-926-5747.

Report was issued on February 22nd, 2017.

[i] https://www.odh.ohio.gov/en/features/odhfeatures/seasflu/Ohio-Flu-Activity

[ii] https://www.cdc.gov/flu/weekly/

[iii] http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/