



Summit County Public Health Influenza Surveillance Report 2016 – 2017 Season



Public Health
Prevent. Promote. Protect.

Report # 21

Flu Surveillance Weeks 21 & 22 (Beginning 2/26/2017 and 3/5/2017)
Centers for Disease Control and Prevention Weeks 9 & 10

Summit County Surveillance Data:

In **Week 22** of influenza surveillance, influenza-related activity continues to **decline** in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 9 N (%) [*]	Week 10 N (%) [*]	Percent change from previous week ^a	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	621	606	↓2.4	↓3
Positive Tests (Number and %)	153(24.6)	162(26.7)	↑8.5 ^b	↑1
Influenza A (Number and %)	100(65.4)	91(56.2)	↓14.1 ^b	↓4
Influenza B (Number and %)	53(34.6)	71(43.8)	↑26.6 ^b	↑4
Acute care hospitalization for Influenza ILI reports				
Long-term Care ILI	0	0	--	--
Community-based Care Providers	0	0	--	--
Physician Offices	0	0	--	--
Pharmacy Prescriptions				
Amantidine	2	N/A	--	--
Rimantidine Flumadine	0	N/A	--	--
Relenza	0	N/A	--	--
Oseltamivir Tamiflu	19	N/A	--	--
<i>Total</i>	21	N/A	--	--
Schools**	1888(17.7)	1384(12.9)	↓27.1 ^b	↓1
Deaths				
Pneumonia associated	9	9	--	--
Influenza associated	1	2	↑100.0	↑2
Emergency room visits (EpiCenter)***				
Constitutional Complaints	517(10.9)	688 (10.4)	↓4.6 ^b	↓2
Fever and ILI	122(2.6)	140 (2.1)	↓19.2 ^b	↓2
[*] N and % are reported when available ^{**} Percent is from total number of students enrolled between all schools. WK9 and WK10 (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 ^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 WK10 of surveillance, Summit County labs performed 606 tests, of which 91 tested positive for influenza A virus and 71 tested positive for Influenza B. Compared to WK9, there was a 2.4% decrease in tests performed, but, 8.5% increase in total positive tests for influenza A /B.

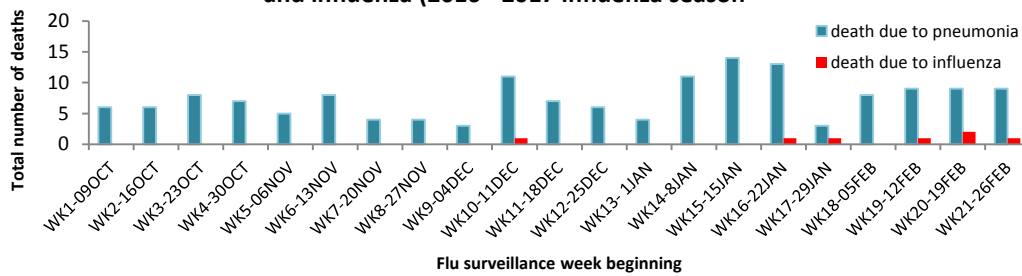
There were no reported new cases for **community-based care providers, physicians' offices and long-term care facilities** in WK10.

No reports from **Pharmacies** were received for WK10.

School absenteeism includes absences regardless of reason. There was 27% decrease in school absenteeism in WK9 when compared to WK8.

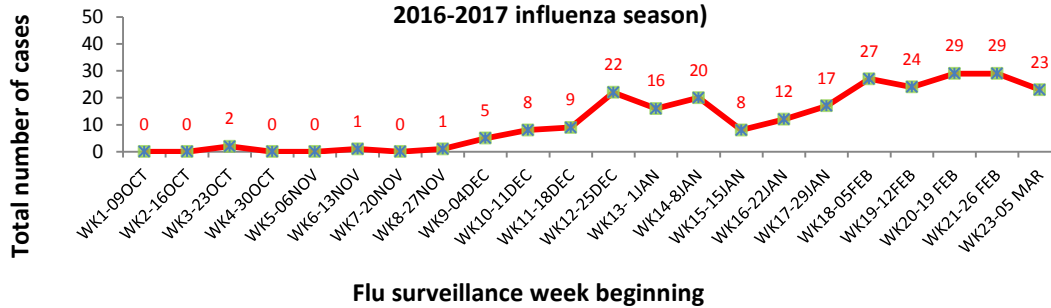
Two reported **death** related to influenza and **nine** deaths related to Pneumonia were reported in WK10. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

Figure 1: Weekly Summit County death counts associated with pneumonia and influenza (2016 - 2017 influenza season)



The cumulative count of confirmed influenza associated deaths in Summit County for 2016-2017 = **7**

Figure 2: Summit County influenza-associated hospitalizations by week (2016-2017 influenza season)



Influenza-associated hospitalization in Summit County remained constant with 23 hospitalized cases in WK10. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count = 253**).

Epicenter reported decreased proportions of **emergency room visits** for constitutional complaints (decreased by 23%) and decreased proportions for ILI / fever cases (decreased by 10%) in WK9 compared to WK8. **Figures 3 and 4** 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).

Figure 3. Weekly emergency room (ER) visits related to ILI and flu symptoms in Summit County

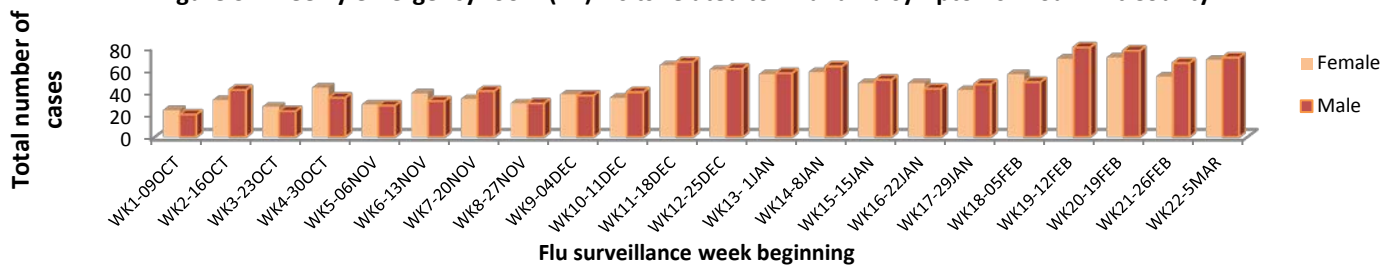
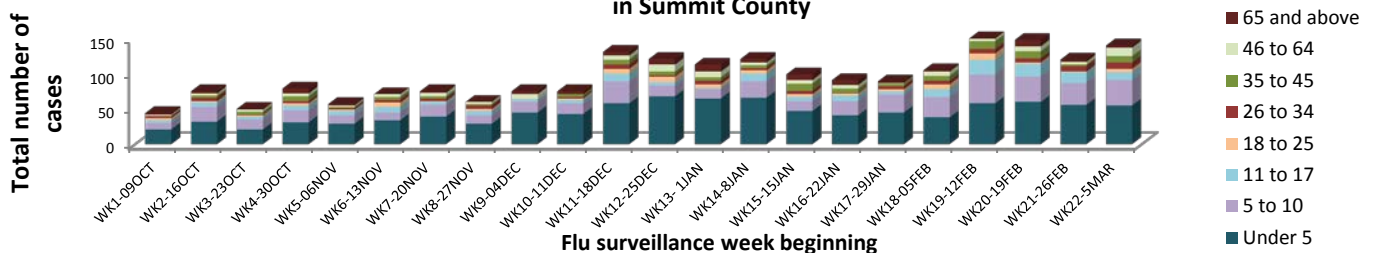


Figure 4. Weekly emergency room (ER) visits related to ILI and flu symptoms stratified by age groups in Summit County



Influenza activity in Ohio during WK10 was **widespread**. There were 837 influenza-associated hospitalizations in WK9 and **608** in WK10. The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016–2017 season was **5,736** which decreased slightly compared to WK8 but have been **above the seasonal threshold** for several weeks.

CDC Week	Central	East Central	Northeast	Northwest	Southeast	Southwest	West Central	Total	Percent change from previous week	Number of weeks increasing or decreasing
9	123	186	214	94	69	66	85	837		
10	149	107	117	55	42	57	81	608	↓27.3%	↓2

During WK9 and WK10, public health surveillance data sources indicated decreased activity for ILI in outpatient settings. Emergency room activity and the percentage of fever and ILI specified ED visits in Ohio have slightly decreased. Reported constitutional complaints and fever/ILI are provided in Table 3.

	Week 9 N (%)*	Week 10 N (%)*	Percent change from previous week**	Number of weeks increasing or decreasing
Emergency room visits (EpiCenter)				
Constitutional Complaints	15,333 (10.9)	15,343 (10.5)	↓3.7 ^b	↓2
Fever and ILI	3,411 (2.4)	3,398 (2.3)	↓4.2 ^b	↓2

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

- There were **638** confirmed positive tests for influenza A (H3N2); **4** for Influenza A/pdmH1N1 and **159** for influenza B at the ODH lab (n = **996 tests**).
- There were **five** 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 Mar 5th, 2017)

National influenza activity **decreased but remained elevated** during WK10 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 WK8 and WK9 are provided in Table 4.ⁱⁱ

	Week 9 N (%)*	Week 10 N (%)*	Percent change from previous week ^a	Number of weeks increasing or decreasing
Test Performed	28,166	27,105	↓3.8	↓2
Positive Tests (Number and %)	5,245 (18.6)	4,967 (18.3)	↓1.6 ^b	↓2
<i>Influenza A (Number and %)</i>	<i>3,599 (68.6)</i>	<i>3,037 (61.1)</i>	<i>↓10.9^b</i>	<i>↓8</i>
<i>Influenza B (Number and %)</i>	<i>1,646 (31.4)</i>	<i>1,930 (38.9)</i>	<i>↑23.9^b</i>	<i>↑8</i>

^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)

- **Five** influenza associated pediatric deaths were reported during WK10 (2 death: influenza A (H3) virus; 1 death: influenza A (no subtype) virus; and 2 death: influenza B virus). Total influenza-associated pediatric deaths for 2016-2017 = **53**)
- The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016–2017 season was **13,133**.

- Outpatient visits for ILI decreased to 3.7% in WK9- still **above** the national baseline of 2.2%.

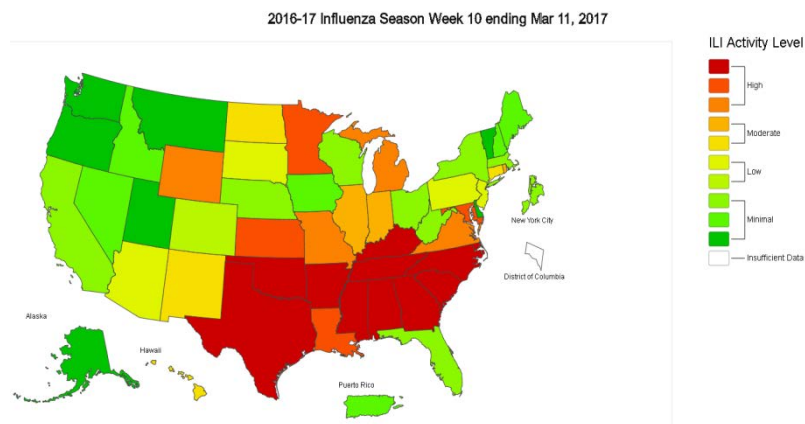
Nationwide Geographic Spread of Influenza:

In WK10, the geographic spread of influenza in 36 states was reported as widespread; Guam, Puerto Rico and 11 states reported regional activity; the District of Columbia and three states reported local activity; and the U.S. Virgin Islands reported no activity.

National Influenza-Like Illness (ILI) Activity:

In WK10, seven of ten regions reported ILI at or above their region-specific baseline levels. 18 states experienced high ILI activity; seven states experienced moderate ILI activity; five states experienced low ILI activity; New York City, Puerto Rico, and 20 states experienced minimal ILI activity; and the District of Columbia had insufficient data.

(Refer to figure on right).



Global Surveillance (World Health Organization, Mar 6th, 2017)

- The World Health Organization report is issued every two weeks. This report includes updates from the WHO Influenza Update N^o 284, published on Mar 6th, 2017, based on data up to Feb 19th, 2017.ⁱ
- Influenza activity continued to **increase** in the temperate zone of the northern hemisphere. East Asia and Europe have already peaked. Worldwide, influenza A (H3N2) virus was predominant
 - **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 plateaued.
 - **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 continue increase in influenza activity.
 - **Africa:** Influenza activity continued to decrease in northern Africa. In West Africa, influenza activity continued to be reported in Côte d'Ivoire, Ghana and Niger, with influenza B being the main virus detected.

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 March 20th, 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/