



Summit County Public Health Influenza Surveillance Report 2016 – 2017 Season



Report # 23

Flu Surveillance **Weeks 23 & 24** (Beginning 3/12/2017 and 3/19/2017)
Centers for Disease Control and Prevention **Weeks 11 & 12**

Summit County Surveillance Data:

In **Week 24** of influenza surveillance, influenza-related activity **increased slightly** in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 11 N (%)*	Week 12 N (%)*	Percent change from previous week ^a	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	553	580	↑4.9	↑1
Positive Tests (Number and %)	127 (22.9)	139 (23.9)	↑4.4 ^b	↑1
Influenza A (Number and %)	68 (53.5)	68 (48.9)	↓8.6 ^b	↓6
Influenza B (Number and %)	59 (46.4)	71 (51.1)	↑10.1 ^b	↑6
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	4	6	↑50.0	↑2
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	24	22	↓8.3	↓1
<i>Total</i>	28	28	--	--
Schools**	565 (9.7)	604 (11.0)	↑13.4 ^b	↑1
Deaths				
Pneumonia associated	9	6	↓33.3	↓1
Influenza associated	1	1	--	--
Emergency room visits (EpiCenter)***				
Constitutional Complaints	636 (10.2)	710 (10.3)	↑0.9 ^b	↑1
Fever and ILI	104 (1.7)	133 (1.9)	↑11.8 ^b	↑1
* N and % are reported when available				
**Percent is from total number of students enrolled between all schools. WK10 (n = 5,813) and WK11 (n =5,477).				
***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 WK12 of surveillance, Summit County labs performed 580 tests, of which 24% tested positive (influenza A = 68 and influenza B = 71). Compared to WK11, there was 5% increase in tests performed and 4.4% increase in positive tests. Proportion of tests positive for influenza B continued to increase in WK12 (10 % increase compared to WK11).

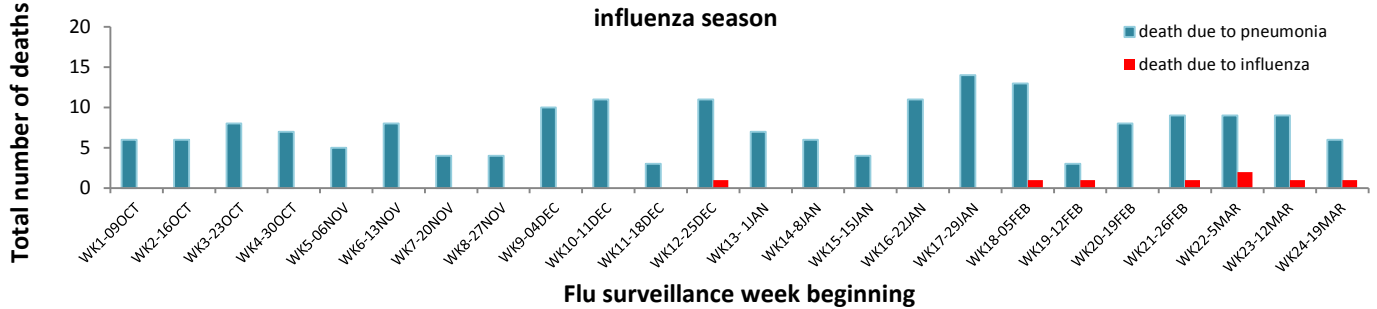
There were no reported new cases for **community-based care providers, physicians' offices and long-term care facilities** in WK12.

Pharmacies dispensed 28 anti-viral prescriptions in WK12. There was an increase in dispense of *amantidine* in WK12.

School absenteeism includes absences regardless of reason. There was 13.4% increase in school absenteeism in WK12 when compared to WK11.

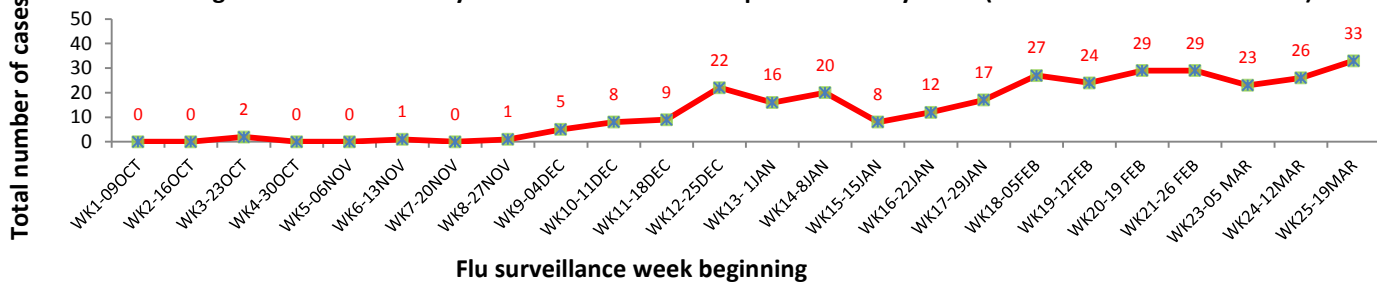
One death related to influenza and **six** deaths related to Pneumonia were reported in WK12. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza. The cumulative count of confirmed influenza associated deaths in Summit County for 2016-2017 = **8**.

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



Influenza-associated hospitalization: Summit County reported 33 confirmed cases of influenza-associated hospitalization in WK12 which is an increase by 30% compared to WK11. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count = 312**).

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



Epicenter reported increased proportions of **emergency room visits** for constitutional complaints (increased by 1%) and increased proportions for ILI / fever cases (decreased by 19%) in WK12 compared to WK11. **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

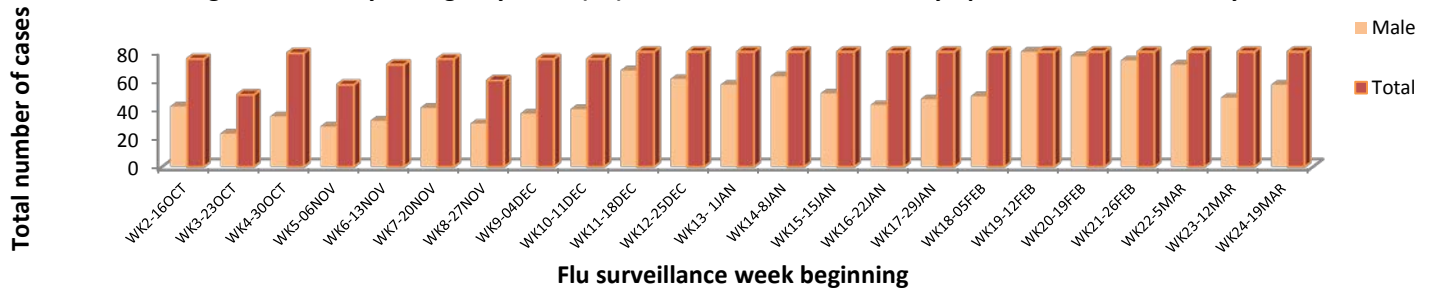
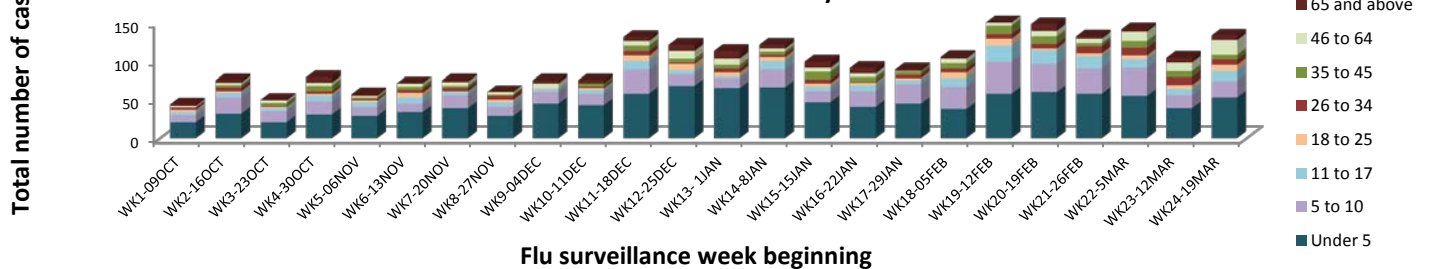


Figure 4. Weekly emergency room (ER) visits related to ILI and flu symptoms stratified by age groups in Summit County



Ohio Surveillance Data (Ohio Department of Health (ODH): Weeks beginning Mar 12th, 2017 and Mar 19th, 2017)

Influenza activity in Ohio during WK10 was **widespread**. There were 477 influenza-associated hospitalizations in WK11 and **713** in WK12. The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016-2017 season was **6,894** which increased by almost 50% in week 12 compared to WK11 and continues to remain above the seasonal threshold.

CDC Week	Central	East Central	Northeast	Northwest	Southeast	Southwest	West Central	Total	Percent change from previous week	Number of weeks increasing or decreasing
11	78	122	101	52	29	46	49	477		
12	116	143	135	91	61	110	57	713	↓49.5%	↑1

During WK11 and WK12, 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 11 N (%) [*]	Week 12 N (%) [*]	Percent change from previous week ^{**}	Number of weeks increasing or decreasing
Emergency room visits (EpiCenter)				
Constitutional Complaints	15,204 (10.4)	16,842 (12.1)	↑16.3 ^b	↑1
Fever and ILI	3364 (2.3)	3,875 (2.8)	↑21.7 ^b	↑1

^{*} 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 **698** confirmed positive tests for influenza A (H3N2); **5** for Influenza A/pdmH1N1 and **194** for influenza B at the ODH lab (**n = 1,099 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 19th, 2017)

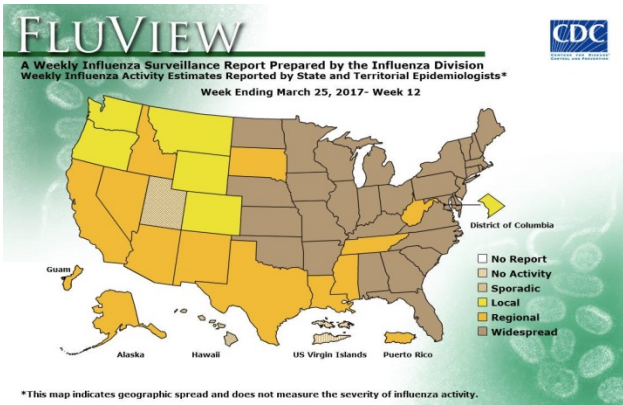
National influenza activity **remained elevated** during WK12 in the United States.

- The most frequently identified influenza virus was influenza A, with influenza A (H3N2) predominating. Details on the result of lab test for WK11 and WK12 are provided in Table 4.ⁱⁱ

	Week 11 N (%)	Week 12 N (%)	Percent change from previous week ^a	Number of weeks increasing or decreasing
Test Performed	24,680	23,666	↓4.1	↓4
Positive Tests (Number and %)	4,416 (17.9)	4,768 (20.1)	↓12.3 ^b	↑1
<i>Influenza A (Number and %)</i>	<i>2,343 (53.1)</i>	<i>2,253 (47.3)</i>	<i>↓10.9^b</i>	<i>↓10</i>
<i>Influenza B (Number and %)</i>	<i>2,073 (46.9)</i>	<i>2,515 (52.7)</i>	<i>↑12.4^b</i>	<i>↑10</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)

- **Six** influenza associated pediatric deaths were reported during WK12 (3 deaths: influenza A (H3) virus; 2 deaths: influenza A with no subtype; and 1 death: influenza B virus.). Total influenza-associated pediatric deaths for 2016-2017 = **61**)
- The cumulative count of confirmed influenza-associated hospitalizations to date in the 2016–2017 season was **15,137**.
- Outpatient visits for ILI decreased to 3.2% in WK12- still **above** the national baseline of 2.2%.

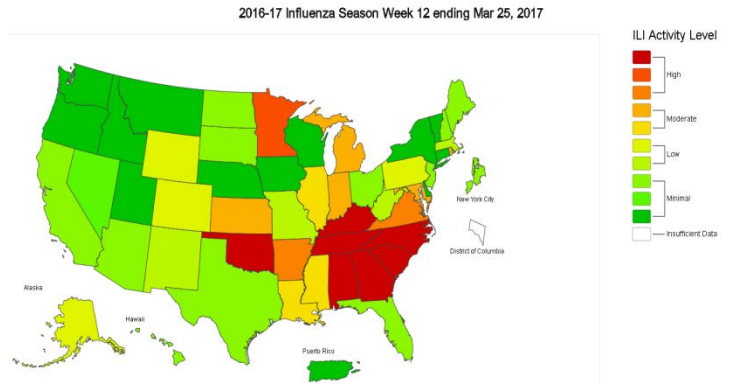


Nationwide Geographic Spread of Influenza:

In WK12, the geographic spread of influenza in 31 states was reported as widespread; Guam, Puerto Rico and 12 states reported regional activity; the District of Columbia and five states reported local activity; two states reported sporadic activity; and the U.S. Virgin Islands reported no activity. (Refer to figure on left)

National Influenza-Like Illness (ILI) Activity:

In WK12, Eight of ten regions reported ILI at or above their region-specific baseline levels. 10 states experienced high ILI activity; eight states experienced moderate ILI activity; eight states experienced low ILI activity; New York City, Puerto Rico, and 24 states experienced minimal ILI activity; and the District of Columbia had insufficient data. (Refer to figure on right).



Global Surveillance (World Health Organization, Mar 20th, 2017)

- The World Health Organization report is issued every two weeks. This report includes updates from the WHO Influenza Update N^o 285, published on Mar 20th, 2017, based on data up to March 5th, 2017.ⁱⁱ
- Influenza activity started to decrease in the temperate zone of the northern hemisphere. Worldwide, influenza A (H3N2) virus was predominant
 - **North America:** Influenza activity and ILI levels decreased in Canada and the U.S. ILI illnesses slightly increased in Mexico.
 - **Europe:** Influenza activity appeared to decrease for influenza A (H3N2) virus, but, a slight increase was seen in influenza B virus related cases.
 - **Asia:** Influenza activity appeared to be decreasing in most of the countries except in India, Maldives and Sri Lanka.
 - **Africa:** Influenza activity continued to decrease in northern Africa. In West Africa, influenza activity continued to be reported in Mali and Ghana.

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 April 3rd, 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/