



Ottawa County Influenza Surveillance Report

MMWR* Week 1: December 29, 2019 - January 4, 2020

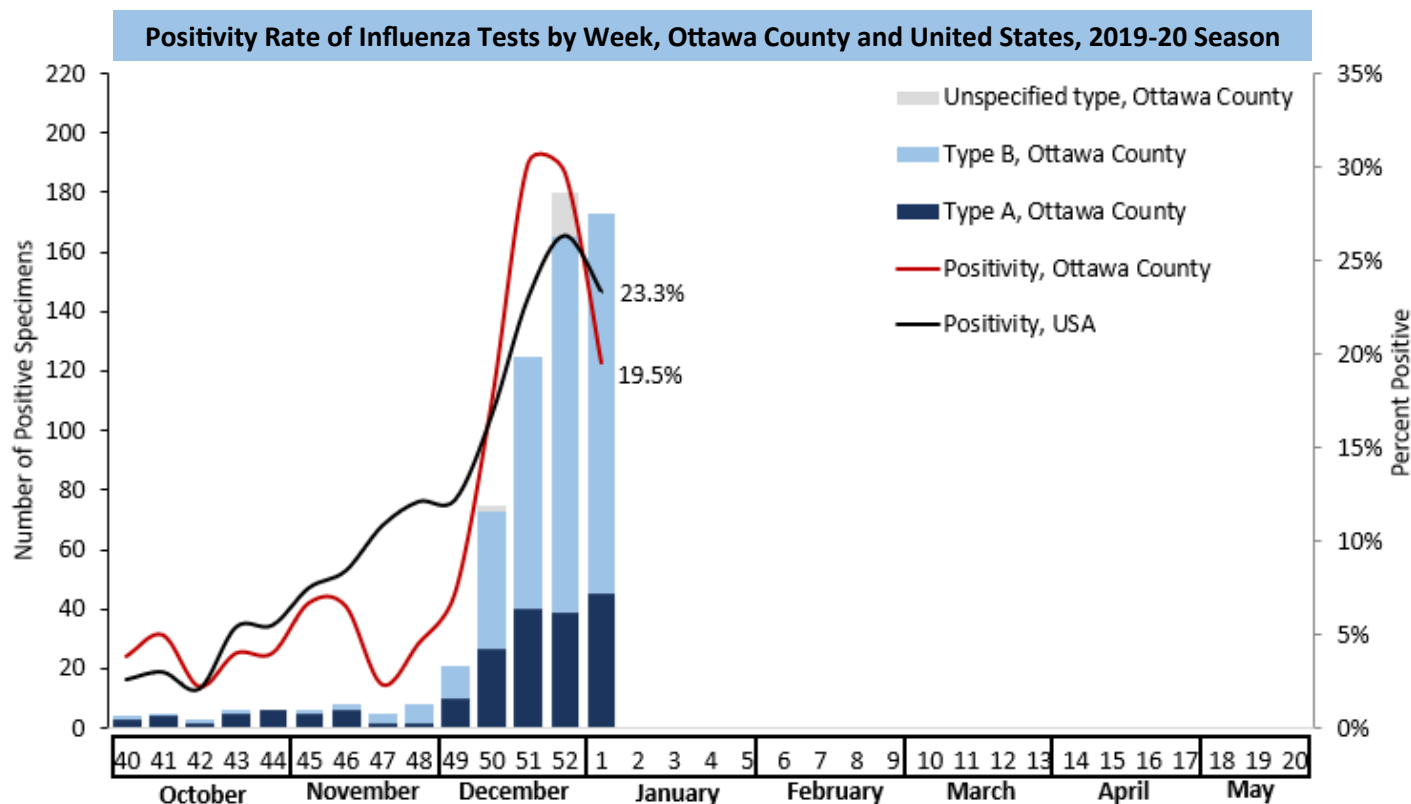
Summary:

During week 1, influenza positivity in Ottawa County decreased to 19.5% (from 29.7% last week). The proportion of influenza-like illnesses (ILI) reported in schools and licensed childcares (0.1%) followed a similar trend with past seasons with fewer reports made over holiday breaks. Reported ILI in healthcare offices rose to 1.5% from (1.3% last week). No ILIs were reported in long-term care facilities (LTCFs). Emergency Department (ED) visits with influenza symptoms decreased to 5.0% (5.4% last week), higher than this same time last year, and slightly over last season's peak proportion. Overall, influenza activity remained elevated in Ottawa County.



Influenza Test Positivity

Influenza positivity is the percent of influenza tests conducted by reporting providers and laboratories that result positive. In week 1, reported positivity was 19.5%. Elevated influenza laboratory positivity is often an indication that influenza is circulating in the community^(1,2). **Influenza positivity has been elevated for the last 4 weeks.**



MMWR* Week	Week ending date	Type A	Type B	Unspecified	Total Influenza	Total Tested	Positivity
51	12/21/2019	40	85	N/A	125	414	30.2%
52	12/28/2019	39	126	15	180	607	29.7%
01	01/04/2020	45	128	1	174	892	19.5%

Influenza test data includes both PCR and rapid tests

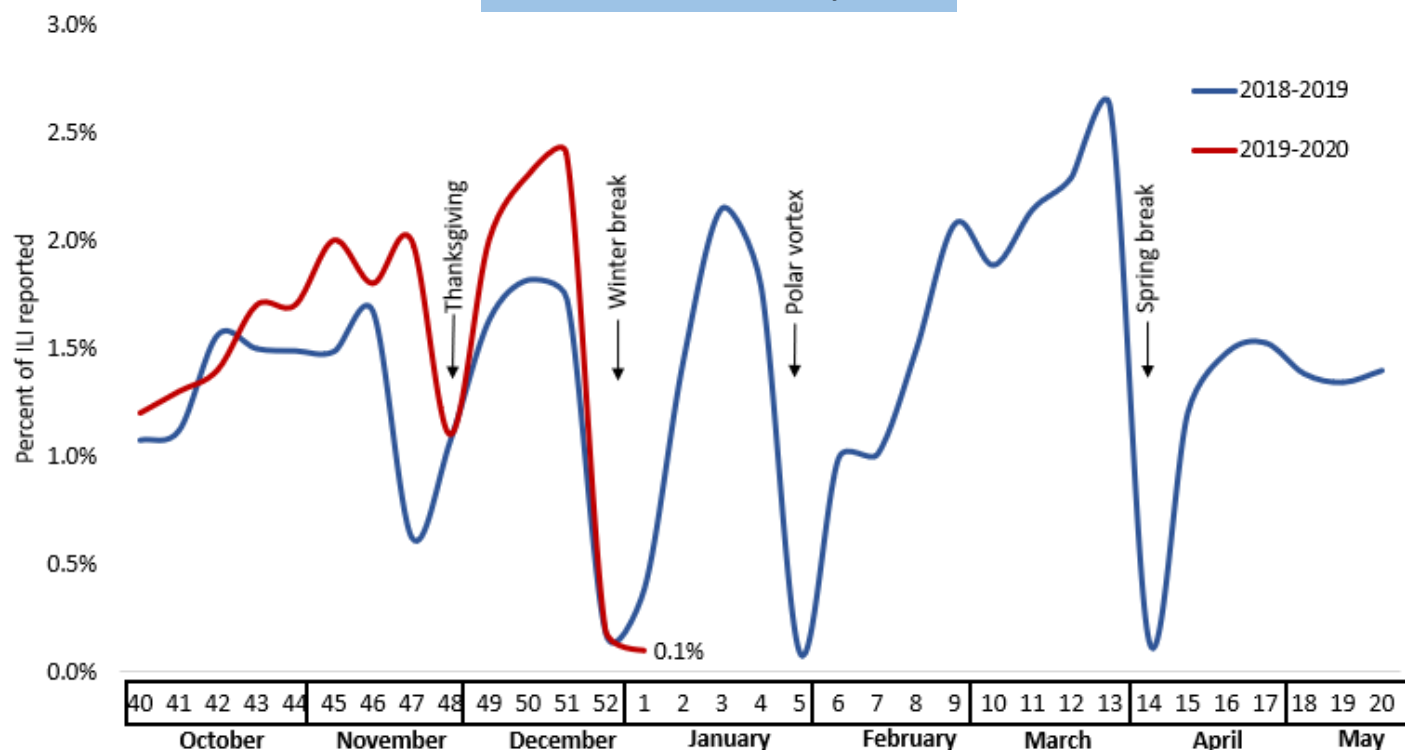
* Morbidity and Mortality Weekly Report



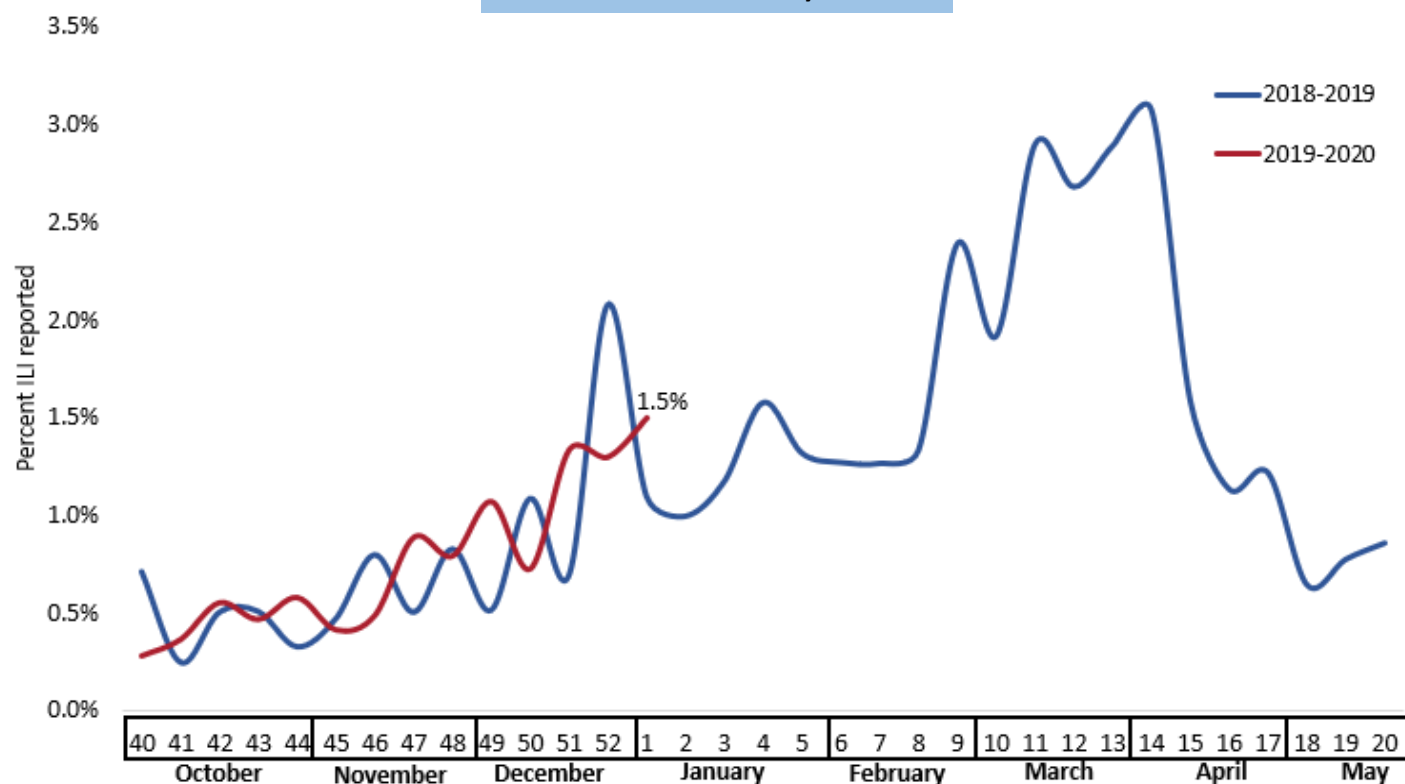
Influenza-Like Illness (ILI) Surveillance from Reporting Schools, Childcare and Healthcare Settings

Ottawa County Department of Public Health (OCDPH) receives ILI reports from schools, licensed childcare, healthcare providers and LTCFs on a weekly basis. During week 1, the proportion of ILI reported in school/childcare settings decreased to 0.1%, similar to the proportion reported this time last year (most schools are closed over the end of year holidays). The proportion reported in healthcare offices rose to 1.5%, similar to this same time last year, and well below last season's peak. There were no reports of ILI in LTCFs.

School and Childcare ILI by Week



Healthcare ILI Visits by Week





Syndromic Surveillance for Influenza

This data reflects the proportion of patients seen in Ottawa County hospital EDs with an influenza symptom*. During week 1, Ottawa County ED visits with influenza symptoms decreased slightly to 5.0%. This proportion is higher than that seen at the same time last season, and also slightly over last season's peak proportion. The overall trend is similar to last season's with a sharp increase over the year-end holidays.

Percentage of ED Visits in Ottawa County with Influenza Symptoms



MMWR Week	Week Ending Date	Total ED ILI	Total ED Visits	Percent ILI
51	12/21/2019	78	2079	3.8%
52	12/28/2019	123	2280	5.4%
01	01/04/2020	119	2369	5.0%

* Influenza symptoms include sudden onsets of fever, cough and/or sore throat.



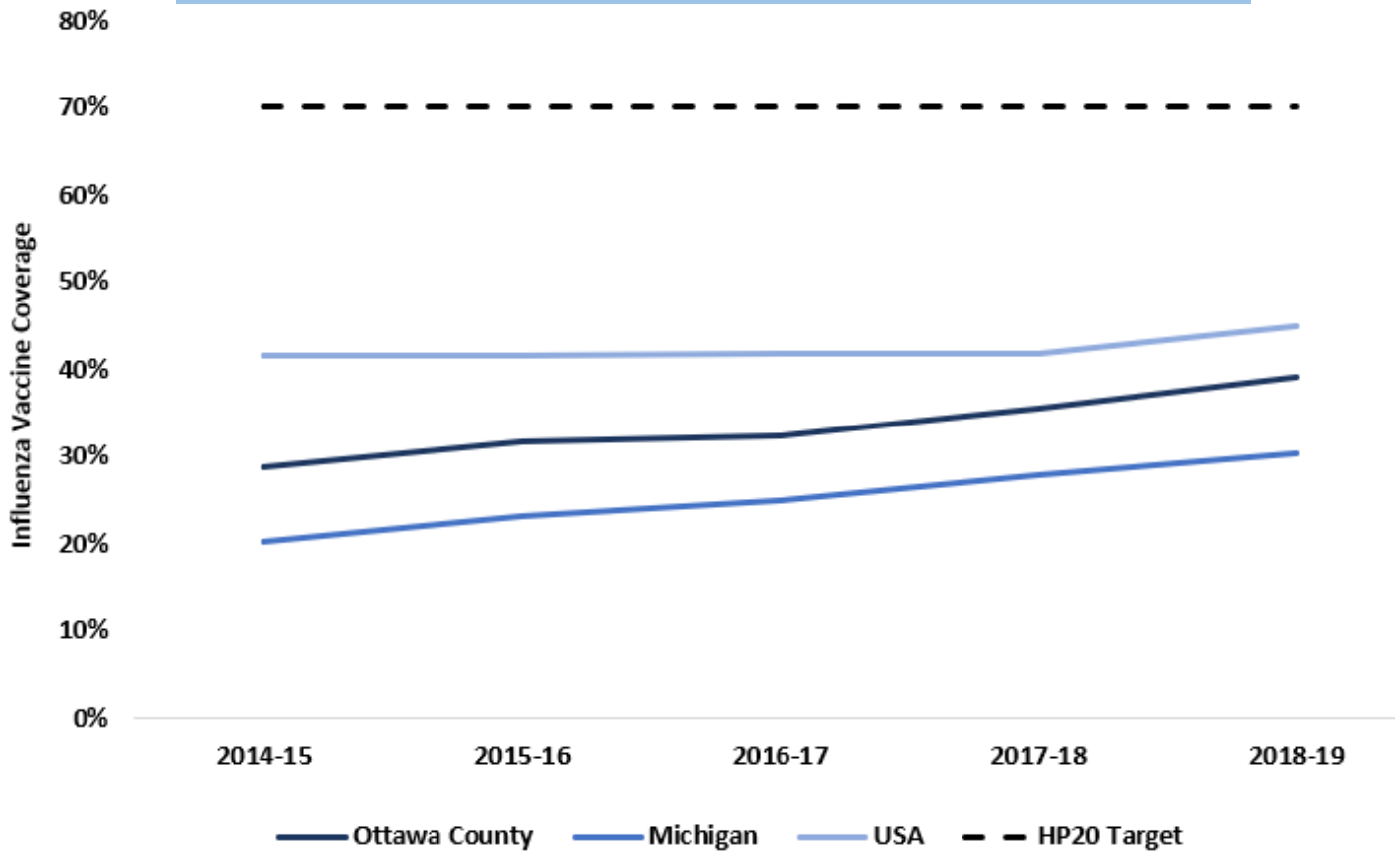
Influenza Vaccine Coverage

The best way to prevent influenza is by getting the influenza vaccine each year. Although below the national average, Ottawa County has seen improvements in influenza vaccine coverage over the years. The table below reflects adult vaccination coverage in Ottawa County, Michigan and the United States over the last 5 influenza seasons.

	2014-15 Season	2015-16 Season	2016-17 Season	2017-18 Season	2018-19 Season
Ottawa County	28.8%	31.7%	32.4%	35.5%	39%
Michigan	20.2%	23.1%	24.9%	27.9%	30.3%
United States (average)	41.5%	41.5%	41.7%	41.7%	44.9%
Healthy People 2020 Target	70%	70%	70%	70%	70%

Source: Michigan's County Quarterly Immunization Report Card - Annual Q2 Reports.

Influenza Vaccine Coverage by Season, Ottawa County, Michigan and United States



Influenza Vaccine Effectiveness

The performance of influenza seasonal vaccines are monitored to improve their benefits. Vaccine effectiveness (VE) studies regularly assess and confirm the value of flu vaccination as a public health intervention³. The table below shows estimates of seasonal flu vaccine effectiveness from past seasons.

	2014-15 Season	2015-16 Season	2016-17 Season	2017-18 Season	2018-19 Season
Overall vaccine effectiveness	19%	48%	40%	38%	47%*

* Preliminary estimate

Source: CDC - Past seasons Vaccine Effectiveness Estimates⁴.



Severe Disease

Five new influenza associated pediatric deaths were reported to the Centers for Disease Control and Prevention (CDC) on week 1, making a total of **32 influenza-associated pediatric deaths** this season. So far this season, **two influenza-associated pediatric deaths** have been reported in Michigan. One influenza-associated death was also reported in an adult earlier on in the season. There have been no reports influenza-associated deaths in Ottawa County.

Resources

- ♦ Michigan Department of Health and Human Services - Influenza activity and Surveillance: https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_22779_40563_48357-191722--,00.html
- ♦ Michigan's County Quarterly Immunization Report Card: https://www.michigan.gov/documents/mdch/Ottawa_447497_7.pdf and https://www.michigan.gov/documents/mdch/Report_Card_Defs_447511_7.pdf
- ♦ National influenza surveillance data are available at: <https://www.cdc.gov/flu/weekly/>
- ♦ Recommendations of the Advisory Committee on Immunization Practices, 2019–20 Influenza Season: https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm?scid=rr6803a1e&deliveryName=USCDC_921-DM7382
- ♦ ¹Forecasting Peak Activity of Seasonal Influenza Using Only One Surveillance Indicator Colorado, 2013-2019 (CSTE Presentation): By Bernadette Albanese, MD, MPH, Tri-County Health Department
- ♦ ²Baumbach, J., Mueller, M., Smelser, C., Albanese, B., & Sewell, C. M. (2009). Enhancement of influenza surveillance with aggregate rapid influenza test results: New Mexico, 2003-2007. American journal of public health, 99 Suppl 2(Suppl 2), S372–S377. doi:10.2105/AJPH.2007.125450
- ♦ ³CDC. (2019). Seasonal Flu Vaccine Effectiveness Studies. Available at <https://www.cdc.gov/flu/vaccines-work/effectiveness-studies.htm>
- ♦ ⁴CDC. (2019). Past Seasons Vaccine Effectiveness Estimates. Available at <https://www.cdc.gov/flu/vaccines-work/past-seasons-estimates.html>

NOTE: This surveillance report is based on preliminary data. Charts and figures are subject to change as the data is updated.

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