

Sandusky County 2019-2020 Seasonal Flu Activity Summary

MMWR Weeks 49 - 52

December 1st – December 28th

Sandusky County Public Health (SCPH) tracks seasonal influenza activity on a weekly basis throughout the year. SCPH monitors circulating flu issues and other related data sources and provides summaries of influenza activity from October (Week 40) through May (Week 20). The first week of the new calendar year is indicated by "Week 1." Surveillance data will be posted to www.scpublichealth.com

Sandusky County: During Weeks 49-52, there were **3 influenza-associated hospitalizations** (1 influenza A, 2 influenza B) and **47 confirmed flu cases reported in outpatient settings** (7 influenza A, 40 influenza B).

Northwest Region: There were **88 influenza-associated hospitalizations** between Weeks 49-52 in the Northwest region.

Ohio: Current Activity Level- (Geographic Spread) – Widespread

- **ODH lab** has reported **150 positive influenza tests** from specimens sent from sentinel ILINet providers and hospital clinical labs. 2019-2020 influenza season results: (44) A/pdmH1N1; (15) A/H3N2; (91) Influenza B;
- **The National Respiratory and Enteric Virus Surveillance System (NREVSS)** has **29,860** influenza specimens tested by RTPCR at participating facilities. 2019-2020 influenza season positive results: (41) A/pdmH1N1; (2) A/H3N2; (606) Flu A Not Subtyped; and (2237) Flu B;
- **0 pediatric influenza-associated mortalities** have been reported during the 2019-2020 season
- No **novel influenza A virus infections** have been reported during the 2019-2020 season
- Incidence of confirmed **influenza-associated hospitalizations** in 2019-2020 season = **1003**

Link to ODH Flu Activity: <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/seasonal-influenza/ohio-flu-activity/>

National Surveillance Data: Seasonal influenza activity in the United States is high and continues to increase. Activity has been elevated for eight weeks.

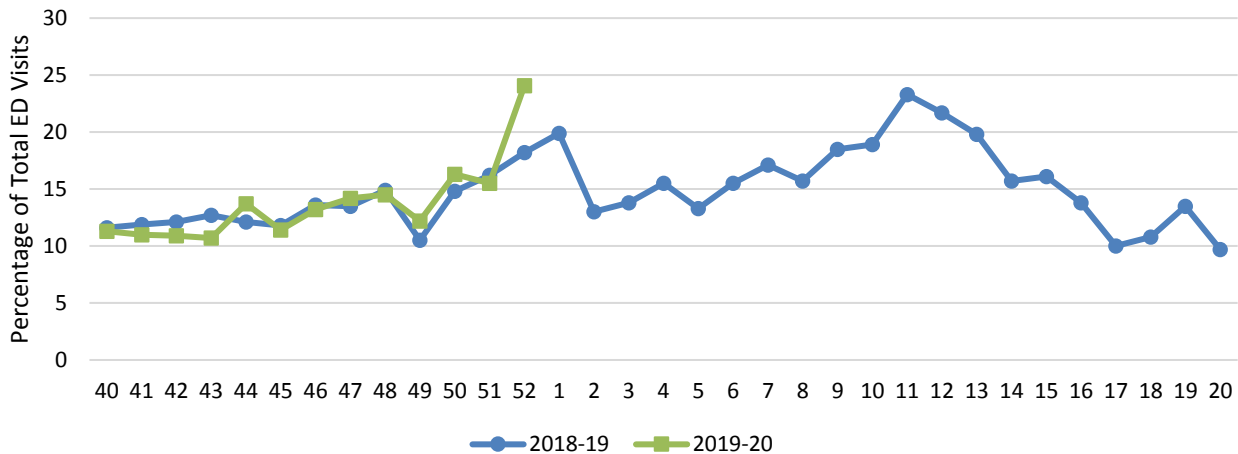
- **2,667 laboratory-confirmed influenza-associated hospitalizations** were reported by FluSurv-NET sites between October 1, 2019 and December 28, 2019.
- Influenza activity is high nationally with outpatient visits for ILI and the percentage of respiratory specimens testing positive for influenza at levels similar to what have been seen at the peak of recent seasons. However, this week's data may in part be influenced by changes in healthcare seeking behavior that can occur during the holidays.

- Nationally, **27 pediatric influenza-associated mortalities** have been reported during the 2019-2020 season.
- **Influenza B/Victoria viruses are predominant nationally**, which is unusual for this time of year. **A(H1N1)pdm09 viruses are the next most common.** A(H3N2) and B/Yamagata viruses are circulating at very low levels.

Link to CDC Flu Activity: <https://www.cdc.gov/flu/weekly/>

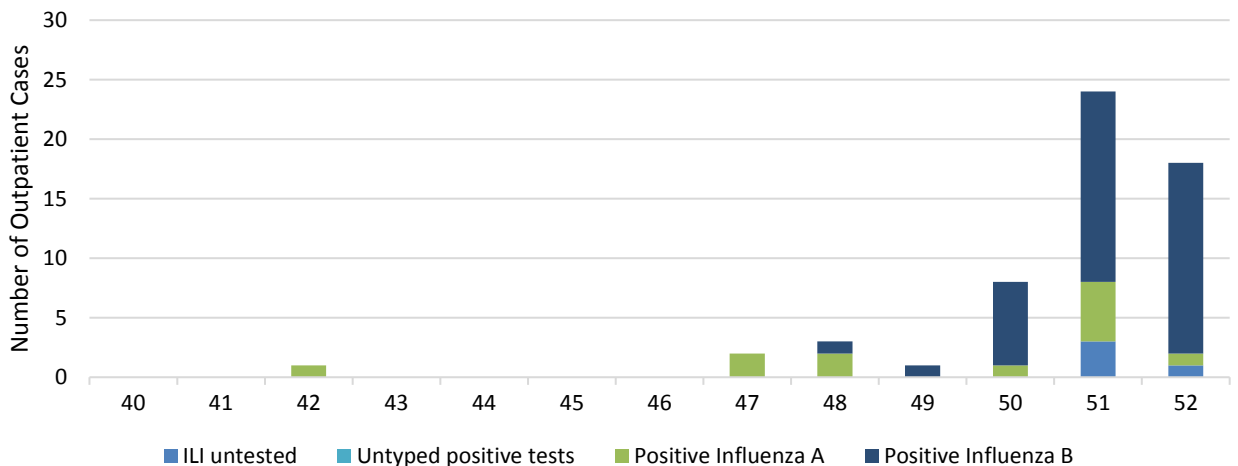
Influenza Like Illness (ILI) Emergency Department Visits by MMWR Week, by Season

Source: Emergency Department Visits (EpiCenter)



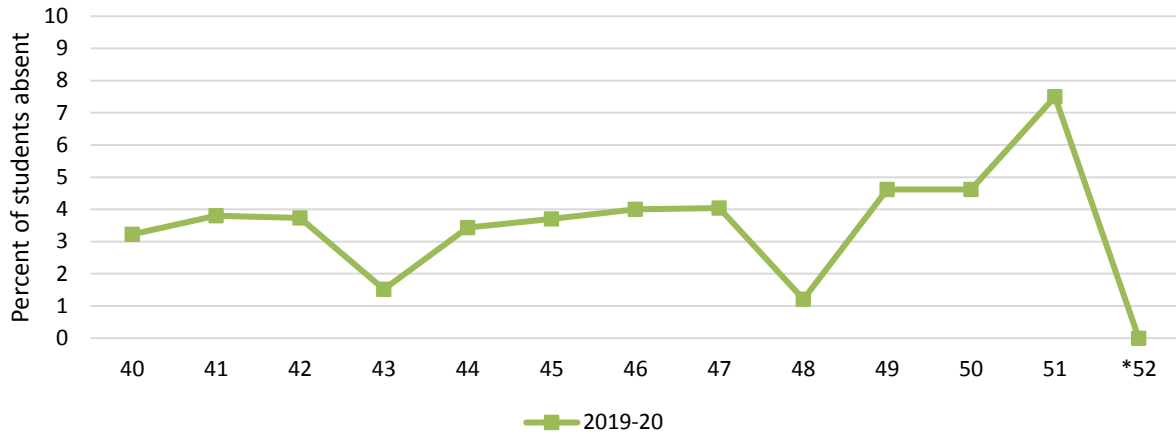
Sandusky County Reported Positive Tests and Outpatient ILI by type and MMWR Week; 2019-2020

Source: Sandusky County Physicians, Urgent Care Centers, and Long Term Health Care Facilities



Weekly School Absenteesim among Sandusky County School Districts by MMWR Week; 2019-2020

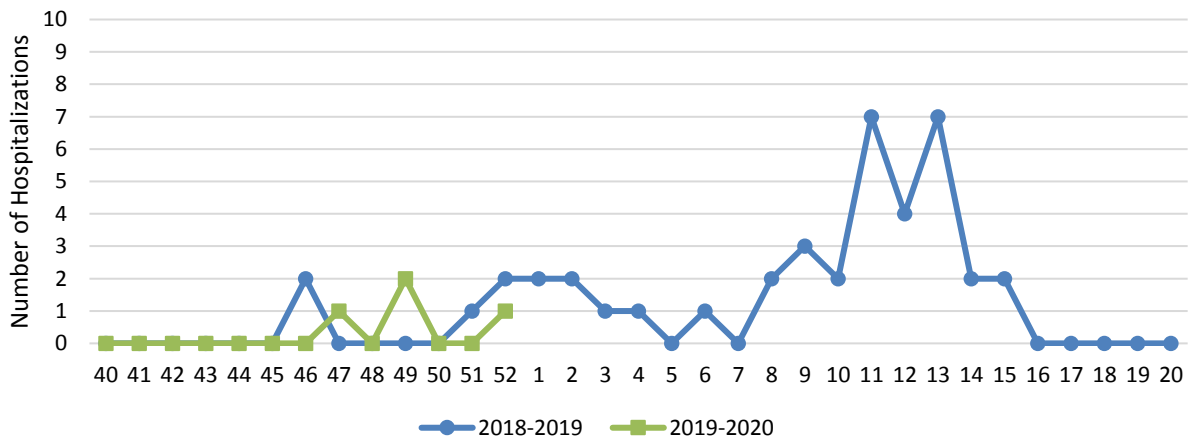
Source: Voluntary reporting by Sandusky County school districts



*Sandusky County schools were not in session (holiday break) during Week 52

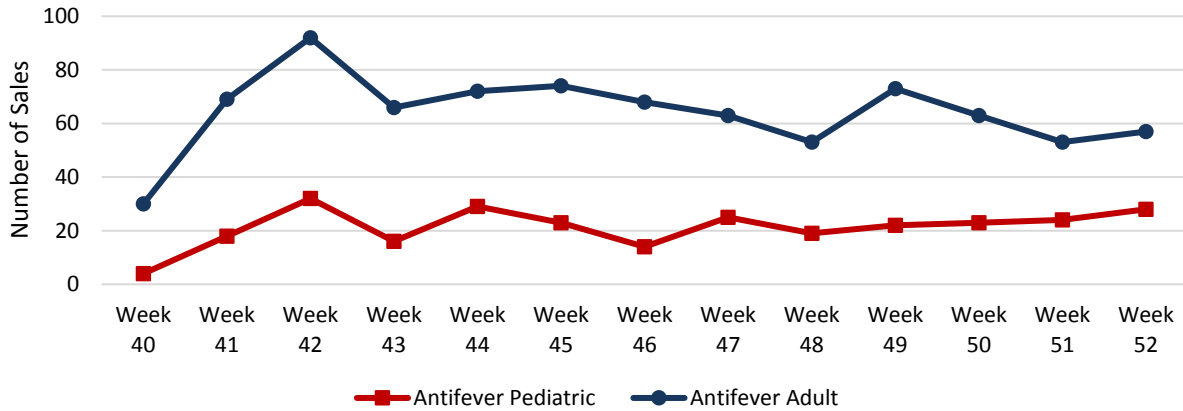
Sandusky County Confirmed Influenza-associated Hospitalizations by MMWR Week; by Season

Source: Northwest Ohio Hospitals, Ohio Disease Reporting System (ODRS)



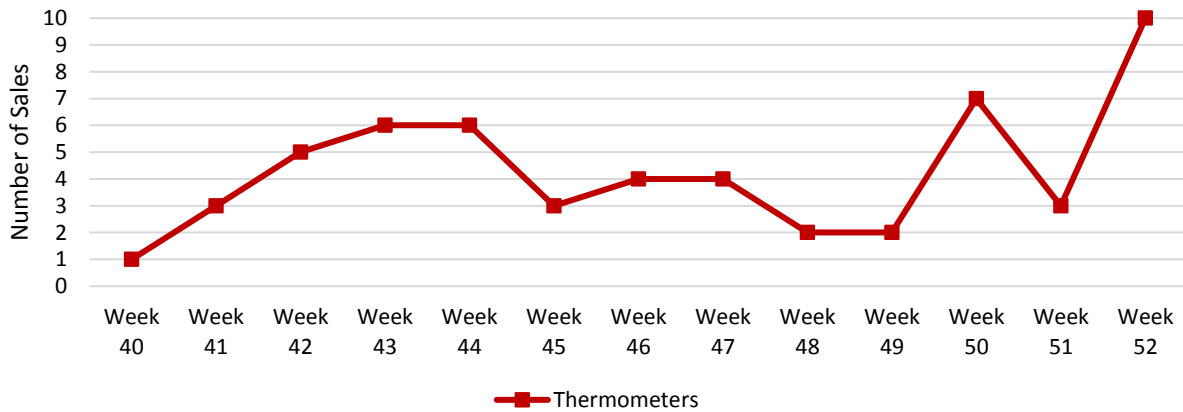
Sandusky County Antifever OTC Medication Sales by MMWR Week; 2019-2020

Source: National Retail Data Monitoring (NRDM)



Sandusky County Thermometer Sales by MMWR Week; 2019-2020

Source: National Retail Data Monitoring (NRDM)



For 2019-2020, trivalent (three-component) vaccines are recommended to contain:

- A/Brisbane/02/2018 (H1N1)pdm09-like virus
- A/Kansas/14/2017 (H3N2)-like virus
- B/Colorado/06/2017-like (Victoria lineage) virus

Quadrivalent (four-component) vaccines, which protect against a second lineage of B viruses, are recommended to contain:

- the three recommended viruses above, plus B/Phuket/3073/2013-like (Yamagata lineage) virus.

Antigenic Characterization:

CDC **antigenically characterizes** a subset of influenza viruses by hemagglutination inhibition (HI) or neutralization based Focus Reduction assays (FRA). Antigenic drift is evaluated by comparing antigenic properties of cell-propagated reference viruses representing currently recommended vaccine components with those of cell-propagated circulating viruses. CDC antigenically characterized 148 influenza viruses collected in the United States from September 29, 2019, to December 21, 2019.

Influenza A Viruses:

- **A (H1N1)pdm09:** 47 A(H1N1)pdm09 viruses were antigenically characterized by HI with ferret antisera, and all were antigenically similar (reacting at titers that were within 4-fold of the homologous virus titer) to cell-propagated A/Brisbane/02/2018-like reference viruses representing the A(H1N1)pdm09 component for the 2019-20 Northern Hemisphere influenza vaccines.
- **A (H3N2):** 41 A(H3N2) viruses were antigenically characterized by FRA with ferret antisera, and 14 (34.1%) were antigenically similar to cell-propagated A/Kansas/14/2017-like reference viruses representing the A(H3N2) component for the 2019-20 Northern Hemisphere influenza vaccines.

Influenza B Viruses:

- **B/Victoria:** 50 B/Victoria lineage viruses, including viruses from both co-circulating sub-clades, were antigenically characterized by HI with ferret antisera, and 29 (58%) were antigenically similar to cell-propagated B/Colorado/06/2017-like reference viruses representing the B/Victoria component for the 2019-20 Northern Hemisphere influenza vaccines.
- **B/Yamagata:** 10 B/Yamagata lineage viruses were antigenically characterized by HI with ferret antisera, and all 10 (100%) were antigenically similar to cell-propagated B/Phuket/3073/2013-like reference viruses representing the B/Yamagata component for the 2019-20 Northern Hemisphere influenza vaccine

This concludes our influenza surveillance for MMWR Weeks 49-52

- *All data presented in this report are preliminary and may change as additional information is received*
- *If you have any questions, please contact Ally Smith at 419-334-6312 or asmith@scpublichealth.com*