

Ohio Department of Health Seasonal Influenza Activity Summary MMWR Week 1 January 3rd – January 9th, 2021

Current Influenza Activity:

During MMWR Week 1, public health surveillance data sources indicate minimal intensity for influenza-like illness (ILI) in outpatient settings reported by Ohio’s sentinel providers. Data from public health and clinical laboratories show very low levels of influenza virus circulation. Week 1 syndromic emergency department data is delayed as Ohio finalizes the transition between syndromic surveillance data vendors. Reported cases of influenza-associated hospitalizations are below the seasonal threshold*. There were 10 influenza-associated hospitalizations reported during MMWR Week 1.

Ohio Weekly Influenza-associated Hospitalizations by Ohio Public Health Region

Central	0
East Central	1
Northeast	1
Northwest	6
Southeast	1
Southwest	1
West Central	0
Total	10

Ohio Influenza Activity Summary Dashboard:

Data Source	Current week value	Percent Change from last week ¹	# of weeks ²	Trend Chart ³
Influenza-like Illness (ILI) Outpatient Data (ILINet Sentinel Provider Visits)	1.61%	47.71%	↑ 1	
Fever and ILI Specified ED Visits (EpiCenter)⁴	1.73%	-14.78%	↓ 4	
Constitutional ED Visits (EpiCenter)⁴	9.82%	-5.12%	↓ 2	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	10	900.00%	↑ 1	

¹Interpret percent changes with caution. Large variability may be exhibited in data sources with low weekly values.

²Number of weeks that the % change is increasing or decreasing.

³Black lines represent current week’s data; red lines represent baseline averages

⁴Week 1 syndromic emergency department data is delayed as Ohio finalizes the transition between syndromic surveillance data vendors; week 52 data is shown.

**The seasonal threshold is 25 cases of influenza-associated hospitalizations; historical data demonstrate that once the weekly count exceeds 25 cases, the number of weekly cases thereafter will likely not decrease until after the peak of influenza activity for the season*

State, Regional, and National Data:

Ohio Surveillance Data:

- The Ohio Department of Health Laboratory has tested four specimens for influenza during the 2020-2021 influenza season; of these, **0 tested positive for influenza A(H1N1pdm09), 0 for influenza A(H3N2), 1 for influenza A (not subtyped), 1 for influenza B, and 2 were negative** (through 1/9/2021).
- The National Respiratory and Enteric Virus Surveillance System (NREVSS) and U.S. World Health Organization (WHO) Collaborating Laboratories reported **17,486** tests for influenza performed at participating facilities; of these, **0 tested positive for influenza A(H1N1pdm09), 2 for influenza A(H3N2), 33 for influenza A (subtyping not performed), and 16 for influenza B** (through 01/02/2021; 2020-2021 season positive influenza testing data reflects a two-week lag to ensure data completeness).
- No **pediatric influenza-associated mortalities** have been reported so far during the 2020-2021 influenza season (through 1/9/2021).
- No **novel influenza A virus infections** have been reported so far during the 2020-2021 influenza season (through 1/9/2021).
- Incidence of confirmed **influenza-associated hospitalizations** in 2020-2021 season = **61** (through 1/9/2021).

HHS Regional Surveillance Data*: During week 53 (December 27th, 2020 – January 2nd, 2021), the percentage of outpatient visits for influenza-like illness (ILI) in Region 5 (Ohio is in Region 5) was 0.7%, which is **below** the regional baseline of 1.9%.

National Surveillance Data*: During week 53 (December 27th, 2020 – January 2nd, 2021), most U.S. states reported Minimal or Low influenza activity reported by sentinel ILINet providers. The percentage of outpatient visits for ILI remained at 1.6%, which is **below** the national baseline of 2.6%. All 10 HHS regions reported ILI levels below their region-specific baseline levels.

*National-level and regional-level data are reported one week later than Ohio state-level data

National activity levels and more information can be found at the following CDC pages:

- <http://www.cdc.gov/flu/weekly/usmap.htm>
- <http://www.cdc.gov/flu/>

2020-2021 Influenza Vaccine Components:

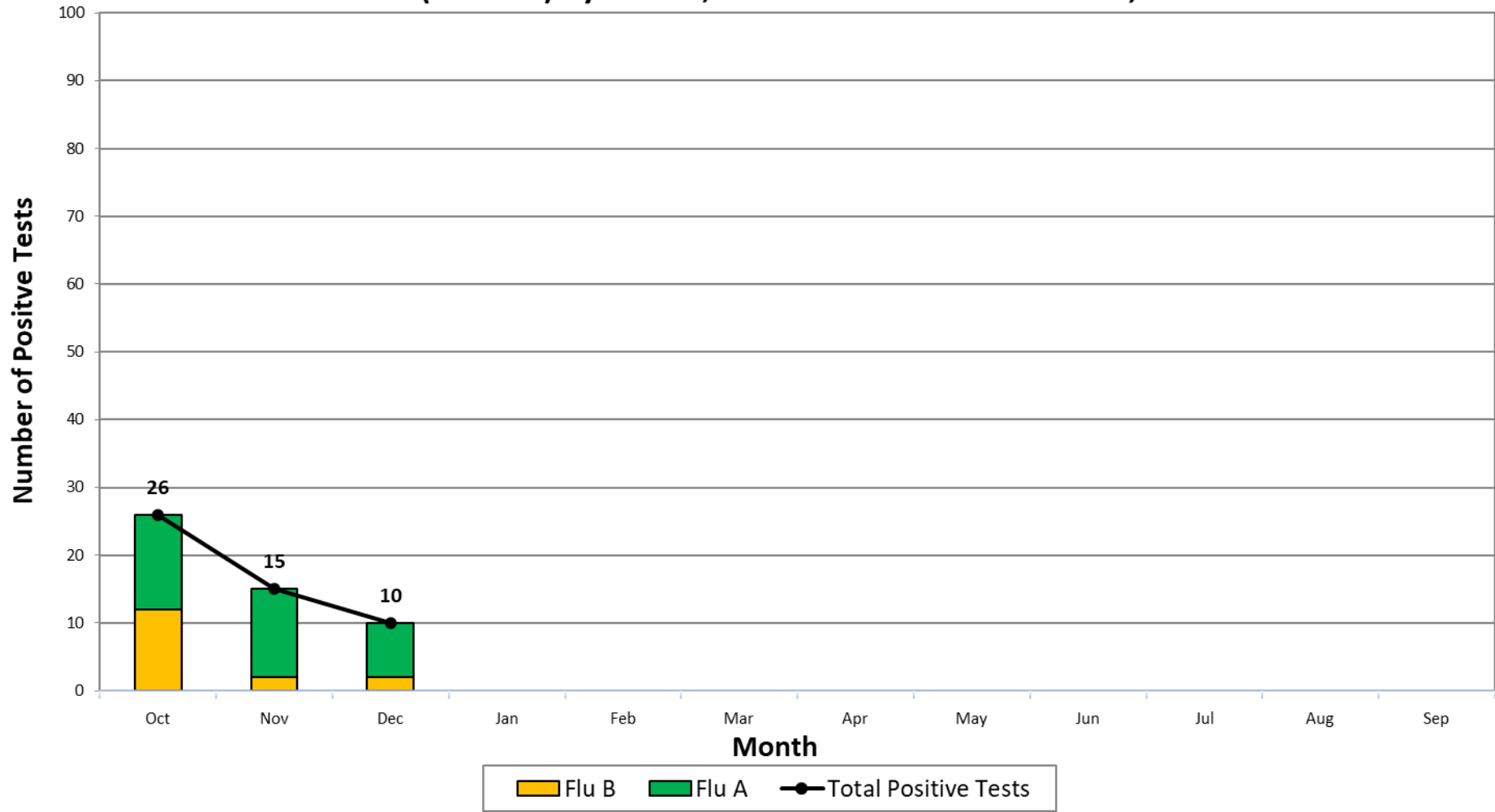
Egg-Based Vaccines			
A/B	Virus	Trivalent	Quadrivalent
A	A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus (updated)	X	X
A	A/Hong Kong/2671/2019 (H3N2)-like virus (updated)	X	X
B	B/Washington/02/2019 (B/Victoria lineage)-like virus (updated)	X	X
B	Phuket/3073/2013-like (B/Yamagata lineage)	-	X
Cell- and Recombinant-Based Vaccines*			
A	A/Hawaii/70/2019 (H1N1)pdm09-like virus (updated)	-	X
A	A/Hong Kong/45/2019 (H3N2)-like virus (updated)	-	X
B	B/Washington/02/2019 (B/Victoria lineage)-like virus (updated)	-	X
B	Phuket/3073/2013-like (B/Yamagata lineage)	-	X

*No trivalent preparations available for cell and recombinant-based vaccines

Antigenic Characterization:

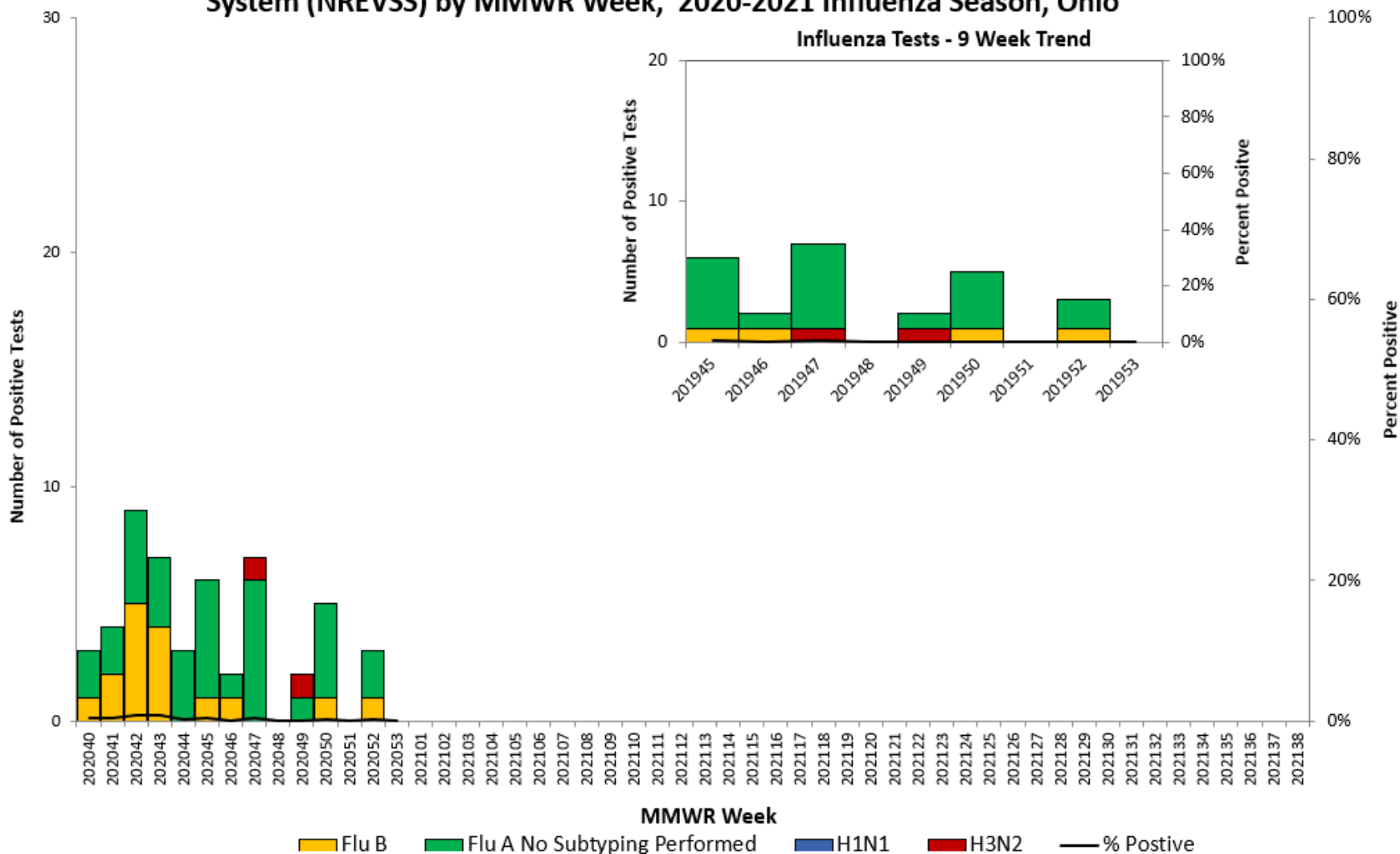
Antigenic Characterization data for the 2020-2021 influenza season is not yet available. This data will be updated weekly starting later this season when sufficient numbers of specimens have been tested.

Positive Influenza Testing from Public Health Laboratories and Selected Clinical Laboratories Participating in the National Respiratory and Enteric Virus Surveillance System (NREVSS) by Month, 2020-2021 Influenza Season, Ohio



2020-2021 season positive influenza testing volume reflects a two-week lag to ensure data completeness; Monthly data through MMWR week 53 (week ending 01/02/2021).
Source: Centers for Disease Control and Prevention (CDC)

Positive Influenza Testing from Public Health Laboratories and Selected Clinical Laboratories Participating in the National Respiratory and Enteric Virus Surveillance System (NREVSS) by MMWR Week, 2020-2021 Influenza Season, Ohio



2020-2021 season positive influenza testing volume reflects a two-week lag to ensure data completeness; data through MMWR week 53 (week ending 01/02/2021).
 Source: Centers for Disease Control and Prevention (CDC)

**Influenza-Associated Hospitalizations, Ohio
2020-2021 Season***

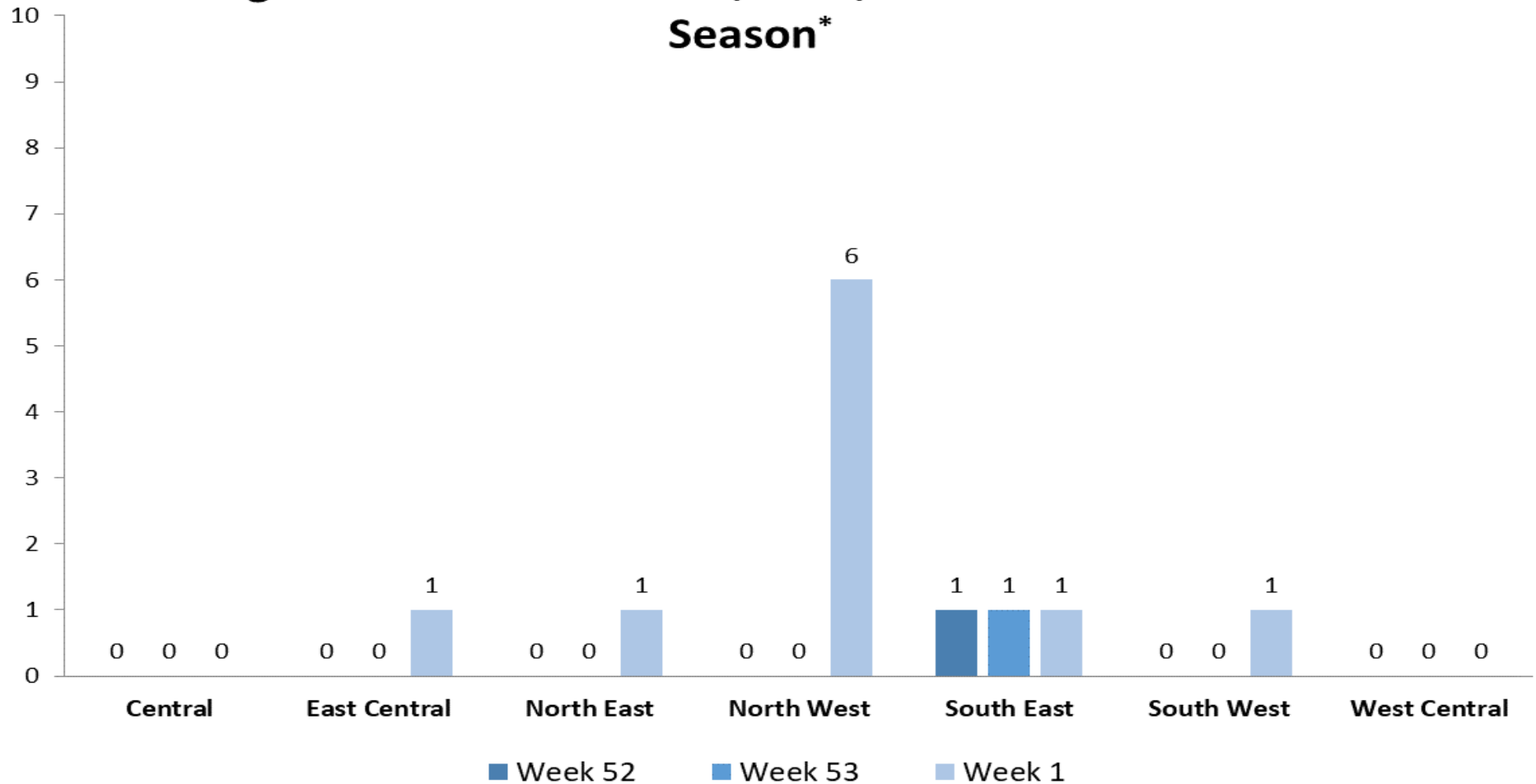
County	Influenza-Associated Hospitalizations	Percent of All Influenza-Associated Hospitalizations	Rate per 100,000 Population†	County	Influenza-Associated Hospitalizations	Percent of All Influenza-Associated Hospitalizations	Rate per 100,000 Population†
ADAMS	0	0.0%	0.00	LOGAN	3	4.9%	6.54
ALLEN	8	13.1%	7.52	LORAIN	0	0.0%	0.00
ASHLAND	0	0.0%	0.00	LUCAS	3	4.9%	0.68
ASHTABULA	0	0.0%	0.00	MADISON	0	0.0%	0.00
ATHENS	0	0.0%	0.00	MAHONING	1	1.6%	0.42
AUGLAIZE	0	0.0%	0.00	MARION	4	6.6%	6.01
BELMONT	0	0.0%	0.00	MEDINA	1	1.6%	0.58
BROWN	0	0.0%	0.00	MEIGS	0	0.0%	0.00
BUTLER	0	0.0%	0.00	MERCER	2	3.3%	4.90
CARROLL	1	1.6%	3.47	MIAMI	2	3.3%	1.95
CHAMPAIGN	0	0.0%	0.00	MONROE	0	0.0%	0.00
CLARK	0	0.0%	0.00	MONTGOMERY	2	3.3%	0.37
CLERMONT	1	1.6%	0.51	MORGAN	0	0.0%	0.00
CLINTON	0	0.0%	0.00	MORROW	0	0.0%	0.00
COLUMBIANA	0	0.0%	0.00	MUSKINGUM	2	3.3%	2.32
COSHOCTON	2	3.3%	5.42	NOBLE	1	1.6%	6.83
CRAWFORD	0	0.0%	0.00	OTTAWA	0	0.0%	0.00
CUYAHOGA	5	8.2%	0.39	PAULDING	0	0.0%	0.00
DARKE	0	0.0%	0.00	PERRY	0	0.0%	0.00
DEFIANCE	0	0.0%	0.00	PICKAWAY	0	0.0%	0.00
DELAWARE	0	0.0%	0.00	PIKE	0	0.0%	0.00
ERIE	0	0.0%	0.00	PORTAGE	0	0.0%	0.00
FAIRFIELD	1	1.6%	0.68	PREBLE	0	0.0%	0.00
FAYETTE	0	0.0%	0.00	PUTNAM	0	0.0%	0.00
FRANKLIN	4	6.6%	0.34	RICHLAND	0	0.0%	0.00
FULTON	0	0.0%	0.00	ROSS	1	1.6%	1.28
GALLIA	0	0.0%	0.00	SANDUSKY	2	3.3%	3.28
GEAUGA	0	0.0%	0.00	SCIOTO	0	0.0%	0.00
GREENE	1	1.6%	0.62	SENECA	0	0.0%	0.00
GUERNSEY	2	3.3%	4.99	SHELBY	0	0.0%	0.00
HAMILTON	6	9.8%	0.75	STARK	1	1.6%	0.27
HANCOCK	0	0.0%	0.00	SUMMIT	0	0.0%	0.00
HARDIN	0	0.0%	0.00	TRUMBULL	0	0.0%	0.00
HARRISON	0	0.0%	0.00	TUSCARAWAS	0	0.0%	0.00
HENRY	0	0.0%	0.00	UNION	1	1.6%	1.91
HIGHLAND	0	0.0%	0.00	VAN WERT	0	0.0%	0.00
HOCKING	0	0.0%	0.00	VINTON	0	0.0%	0.00
HOLMES	3	4.9%	7.08	WARREN	1	1.6%	0.47
HURON	0	0.0%	0.00	WASHINGTON	0	0.0%	0.00
JACKSON	0	0.0%	0.00	WAYNE	0	0.0%	0.00
JEFFERSON	0	0.0%	0.00	WILLIAMS	0	0.0%	0.00
KNOX	0	0.0%	0.00	WOOD	0	0.0%	0.00
LAKE	0	0.0%	0.00	WYANDOT	0	0.0%	0.00
LAWRENCE	0	0.0%	0.00	UNKNOWN	0	0.0%	*
LICKING	0	0.0%	0.00	TOTAL	61	100%	0.53

*2020-2021 Season began on 09/27/2020; data as of 01/9/2020

† Disease rates were calculated by number of cases per 100,000 residents using 2010 census data.

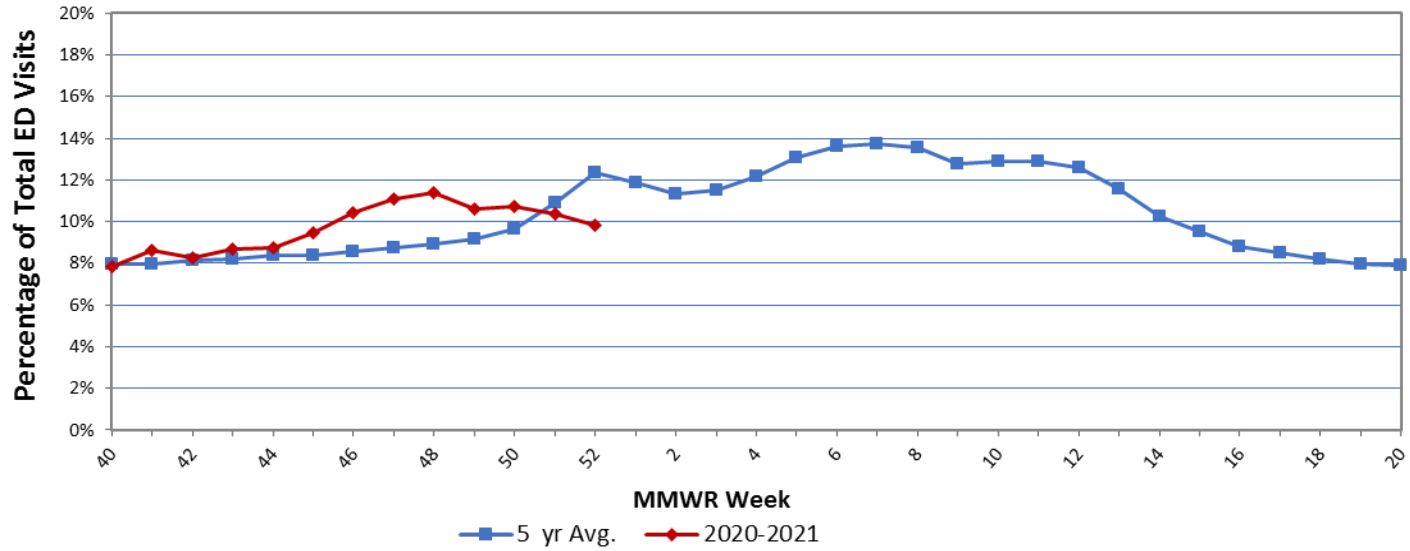
Source: Ohio Disease Reporting System

Influenza-associated Hospitalizations by Public Health Region and MMWR Week, Ohio, 2020-2021 Influenza Season*

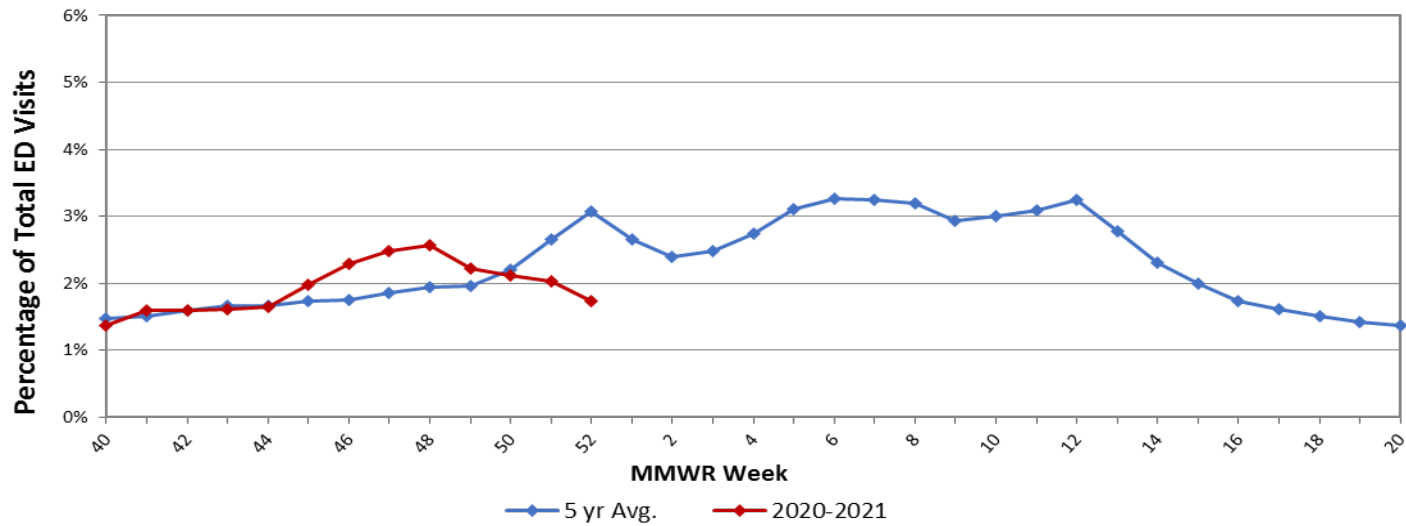


*2020-2021 Season: 09/27/2020 through 05/22/2021
 Source: Ohio Disease Reporting System

Ohio Constitutional ED Visits with 5 Year Baseline Average; 2020-2021 Influenza Season*

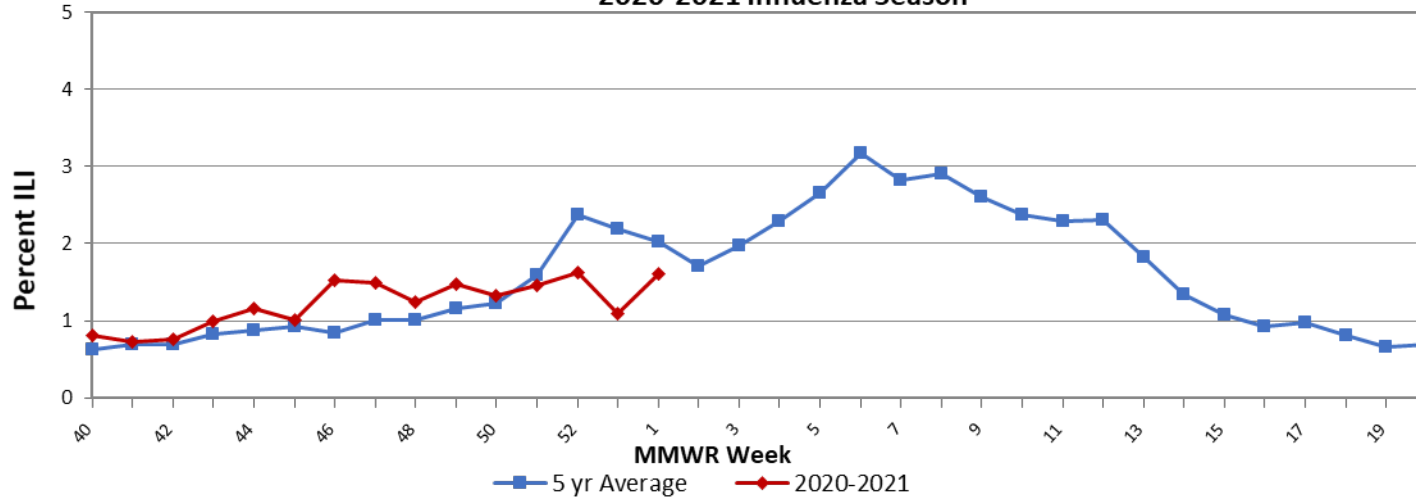


Ohio Fever & ILI Specified ED Visits with 5 Year Baseline Average; 2020-2021 Influenza Season*

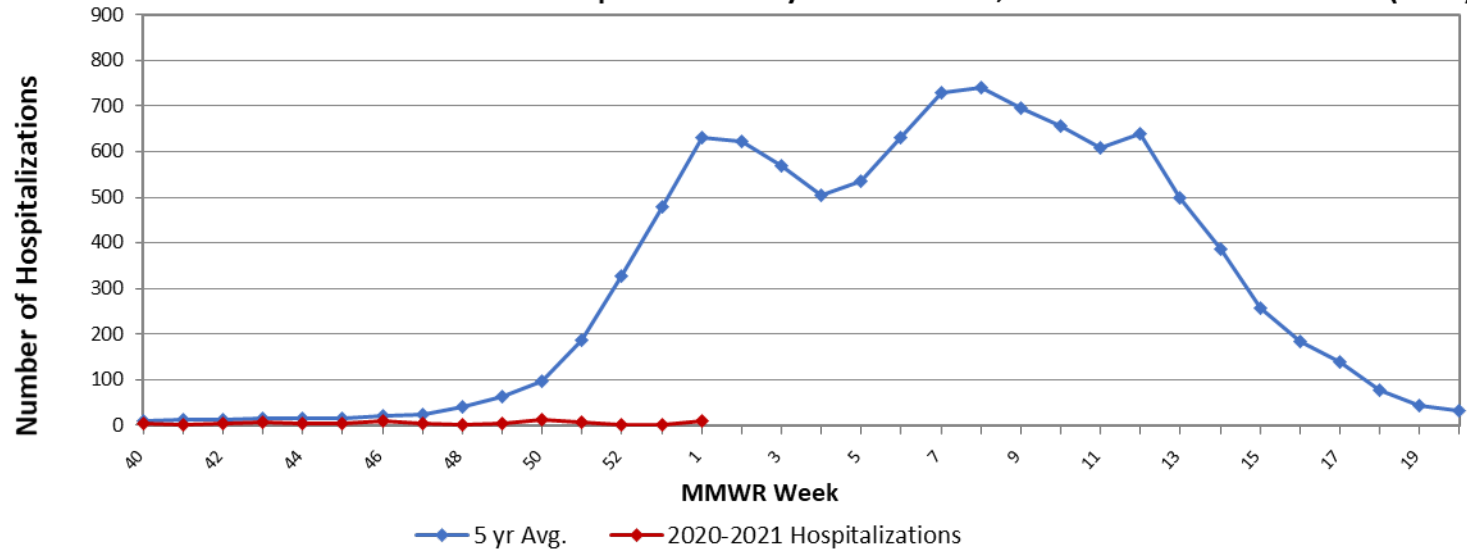


*Week 1 syndromic emergency department data is delayed as Ohio finalizes the transition between syndromic surveillance data vendors; data through week 52 data is shown.

**Ohio Outpatient Influenza-like Illness Network (ILINet) with 5 Year Baseline Average;
2020-2021 Influenza Season**



Ohio Confirmed Influenza-associated Hospitalizations by MMWR Week; 2020-2021 Influenza Season (n=61)



Sources of Influenza Surveillance Data

- **Emergency Department Visits (EpiCenter):** EpiCenter collects emergency department chief complaint data from 180 hospitals and urgent care facilities across Ohio in real time and classifies them into symptom and syndrome categories. Chief complaints from the constitutional syndrome category and the fever + ILI symptoms classifier are analyzed for influenza surveillance.
- **Sentinel Providers (ILINet):** Sentinel providers, through the US Influenza-like Illness Surveillance Network (ILINet), collect outpatient influenza-like illness (ILI) data. ILI is defined as a fever (≥ 100 F), **and** cough and/or sore throat without another known cause. Providers report the total number of patients seen and the number of patients with ILI by age group on a weekly basis. Sentinel providers also submit specimens for influenza testing to the ODH laboratory throughout the influenza season. There are 61 sentinel providers enrolled in Ohio for the 2020-2021 influenza season.
- **ODH Laboratory Surveillance:** The Ohio Department of Health Laboratory reports the number of specimens that test positive for influenza each week. Generally, specimens are submitted by sentinel provider participants. A subset of the positive specimens is sent to CDC for further testing during the season.
- **Influenza-associated Hospitalizations (ODRS):** Influenza-associated hospitalizations are reported to ODH from local health departments and hospitals by direct entry into the Ohio Disease Reporting System (ODRS). Hospitalizations can be used as an indicator of the severity of illness during a particular influenza season. This condition became reportable in 2009.
- **Influenza-associated Pediatric Mortality (ODRS):** Influenza-associated pediatric mortalities are reported into ODRS by local health department and hospital staff. Pediatric deaths can be an indicator of the severity of illness during the influenza season. This condition became reportable in 2005.
- **National Respiratory and Enteric Virus Surveillance System (NREVSS):** The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based system that monitors temporal and geographic patterns associated with the detection of respiratory syncytial virus (RSV), human parainfluenza viruses (HPIV), respiratory and enteric adenoviruses and rotavirus. There are 19 facilities in Ohio that submit data to this system.
- **athenahealth®:** athenahealth is a technology and services company for medical billing and electronic health records. Diagnosis and procedure data from primary care visits are automatically queried to produce influenza related statistics.

Ohio Public Health Regions: These counties comprise the Ohio Public Health Regions described in the figures shown on pages 1 and 5.

Central		East Central		Noth East	North West		South East		South West	West Central
CRAWFORD	LOGAN	ASHLAND	RICHLAND	ASHTABULA	ALLEN	MERCER	ATHENS	MONROE	ADAMS	CHAMPAIGN
DELAWARE	MADISON	CARROLL	STARK	CUYAHOGA	AUGLAIZE	OTTAWA	BELMONT	MORGAN	BROWN	CLARK
FAIRFIELD	MARION	COLUMBIANA	SUMMIT	GEAUGA	DEFIANCE	PAULDING	COSHOCTON	MUSKINGUM	BUTLER	DARKE
FAYETTE	MORROW	HOLMES	TRUMBULL	LAKE	ERIE	PUTNAM	GALLIA	NOBLE	CLERMONT	GREENE
FRANKLIN	PICKAWAY	MAHONING	TUSCARAWAS	LORAIN	FULTON	SANDUSKY	GUERNSEY	PERRY	CLINTON	MIAMI
HARDIN	UNION	MEDINA	WAYNE		HANCOCK	SENECA	HARRISON	PIKE	HAMILTON	MONTGOMERY
KNOX	WYANDOT	PORTAGE			HENRY	VAN WERT	HOCKING	ROSS	HIGHLAND	PREBLE
LICKING					HURON	WILLIAMS	JACKSON	SCIOTO	WARREN	SHELBY
					LUCAS	WOOD	JEFFERSON	VINTON		
							LAWRENCE	WASHINGTON		
							MEIGS			

If you have any further questions or comments about surveillance for seasonal influenza for the state of Ohio, please contact the Infectious Disease Informatics and Vaccine Preventable Disease Epidemiology Section at VPDEpi@odh.ohio.gov or call (614) 995-5599.