



Ohio Department of Health Seasonal Influenza Activity Summary MMWR Week 17 April 24th– April 30th, 2016

Current Influenza Activity:

Current Ohio Activity Level (Geographic Spread) – Regional

Definition: Increased ILI in > 2 but less than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions, OR institutional outbreaks (ILI or lab confirmed) in > 2 but less than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions.

During MMWR Week 17, public health surveillance data sources indicate minimal intensity for influenza-like illness (ILI) in outpatient settings reported by Ohio’s sentinel ILINet providers. Data from other outpatient ILI indicators (athenahealth®) remain elevated. The percentage of emergency department (ED) visits with patients exhibiting constitutional symptoms **decreased and is above** baseline levels statewide; the percentage of fever and ILI specified ED visits **decreased and is below** baseline levels. There were 158 influenza-associated hospitalizations reported.

Ohio Weekly Influenza-associated Hospitalizations by Ohio Public Health Region

Central	39
East Central	39
Northeast	25
Northwest	19
Southeast	7
Southwest	18
West Central	11
Total	158

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)	0.67%	-31.63%	↓ 7	
Thermometer Sales (National Retail Data Monitor)	973	-13.20%	↓ 7	
Fever and ILI Specified ED Visits (EpiCenter)	1.71%	-10.47%	↓ 7	
Constitutional ED Visits (EpiCenter)	8.65%	-4.63%	↓ 7	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	158	-28.18%	↓ 1	
Outpatient Medical Claims Data ⁴	0.59%	-14.49%	↓ 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.

⁴Medical Claims Data provided by athenahealth®

State, Regional, and National Data:

Ohio Surveillance Data:

- **ODH lab** has reported **574** influenza tests from specimens sent from various submitters.
2015-2016 influenza season results: **(315) A/pdmH1N1; (15) A/H3N2; (64) Influenza B;** (through 4/30/16).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **33,622** influenza tests performed at participating facilities.
2015-2016 influenza season positive results: **(505) H1N1, (17) A/H3N2, (1871) Flu A Not Subtyped, and (690) Flu B** (through 4/30/16).
- **1 pediatric influenza-associated mortality** has been reported during the 2015-2016 season (through 4/30/16).
- No **novel influenza A virus infections** have been reported during the 2015-2016 season (through 4/30/16).
- Incidence of confirmed **influenza-associated hospitalizations** in 2015-2016 season = **3449** (through 4/30/16).

HHS Regional Surveillance Data^{*}: During week 16 (April 17th –23rd, 2016), the proportion of outpatient visits for ILI in Region 5 (Ohio is in Region 5) was 1.4%, which is below the regional baseline of 1.9%. Indiana reported Sporadic Activity; West Virginia reported Local Activity; Michigan reported Regional Activity; Ohio, Pennsylvania, and Kentucky reported Widespread Activity (Ohio was at Regional Activity for week 17).

National Surveillance Data^{*}: During week 16 (April 17th –23rd, 2016), the majority of U.S. states reported Minimal influenza activity. The proportion of outpatient visits for ILI was 2.0%, which is **below** the national baseline of 2.1%. Three of 10 HHS regions reported ILI levels at or above their region-specific baseline levels. The most frequently identified influenza virus type reported by public health laboratories was **influenza B**.

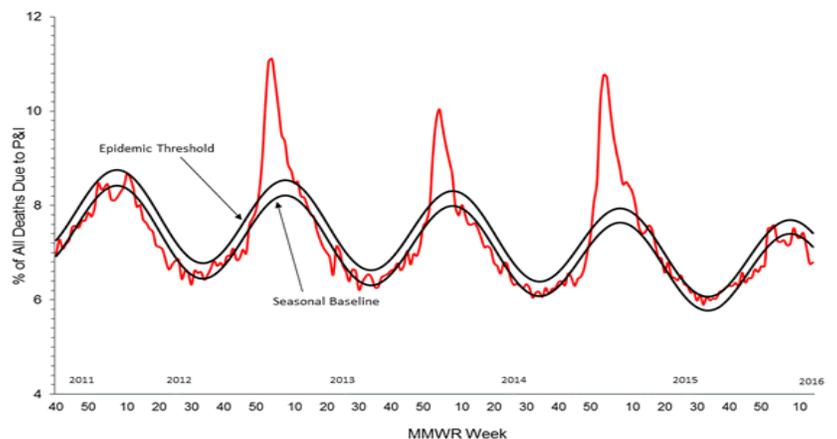
Influenza Virus Characterization:

CDC has characterized 1,777 influenza viruses [744 A (H1N1)pdm09, 445 A (H3N2), and 588 influenza B viruses] collected by U.S. laboratories since October 1, 2015.

All of the influenza A and influenza B viruses that have been genetically characterized since October 1st, 2015 have been found to be genetically similar to the viruses included in the 2015-2016 influenza vaccine.



Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System
Data through the week ending April 9, 2016, as of April 28, 2016

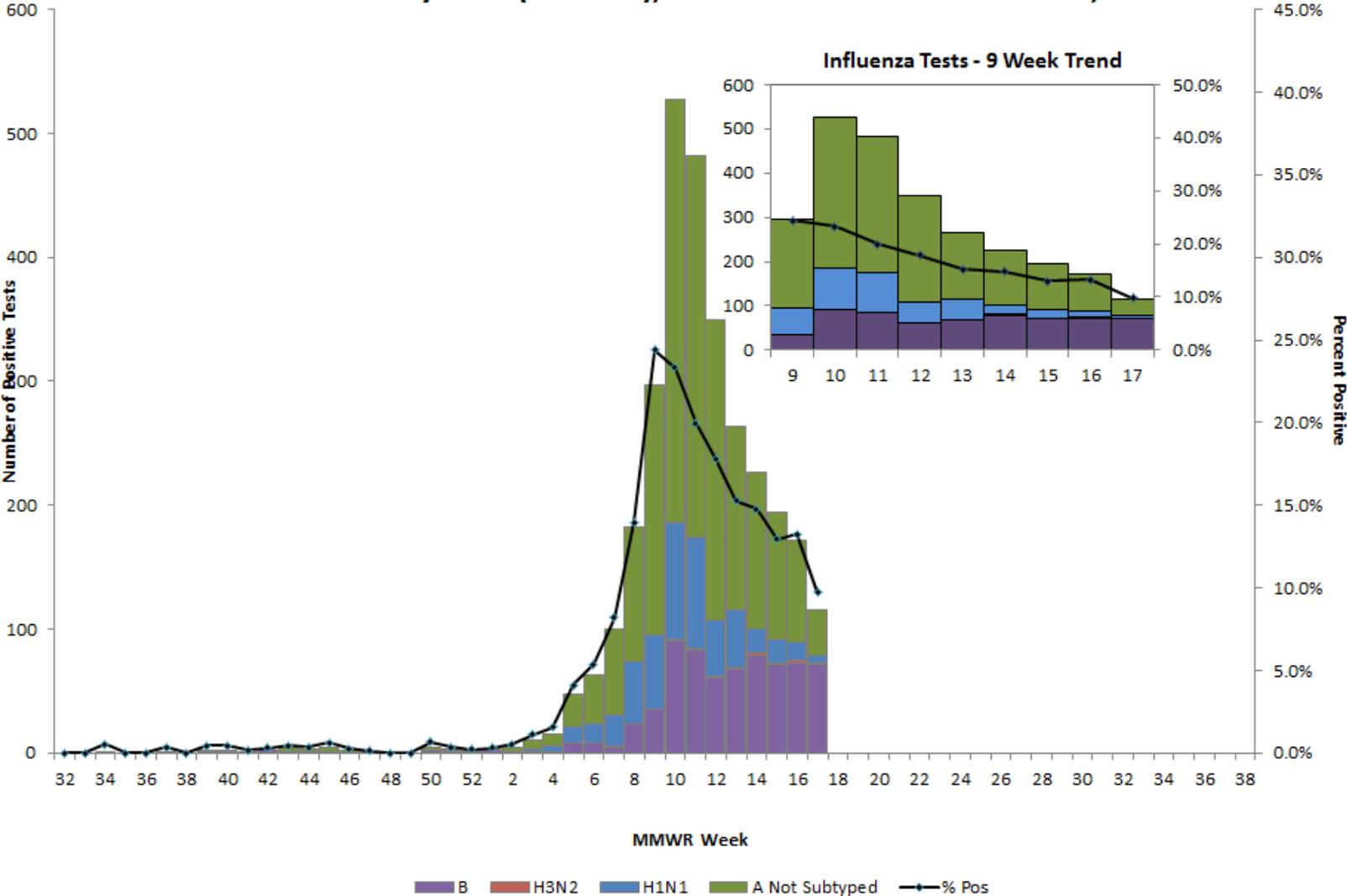


National activity levels and more information can be found at the following CDC pages:

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

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

Positive Influenza Tests (PCR), National Respiratory and Enteric Virus Surveillance System (NREVSS), 2015-2016 Influenza Season, Ohio



**Influenza-Associated Hospitalizations, Ohio
2015-2016 Season***

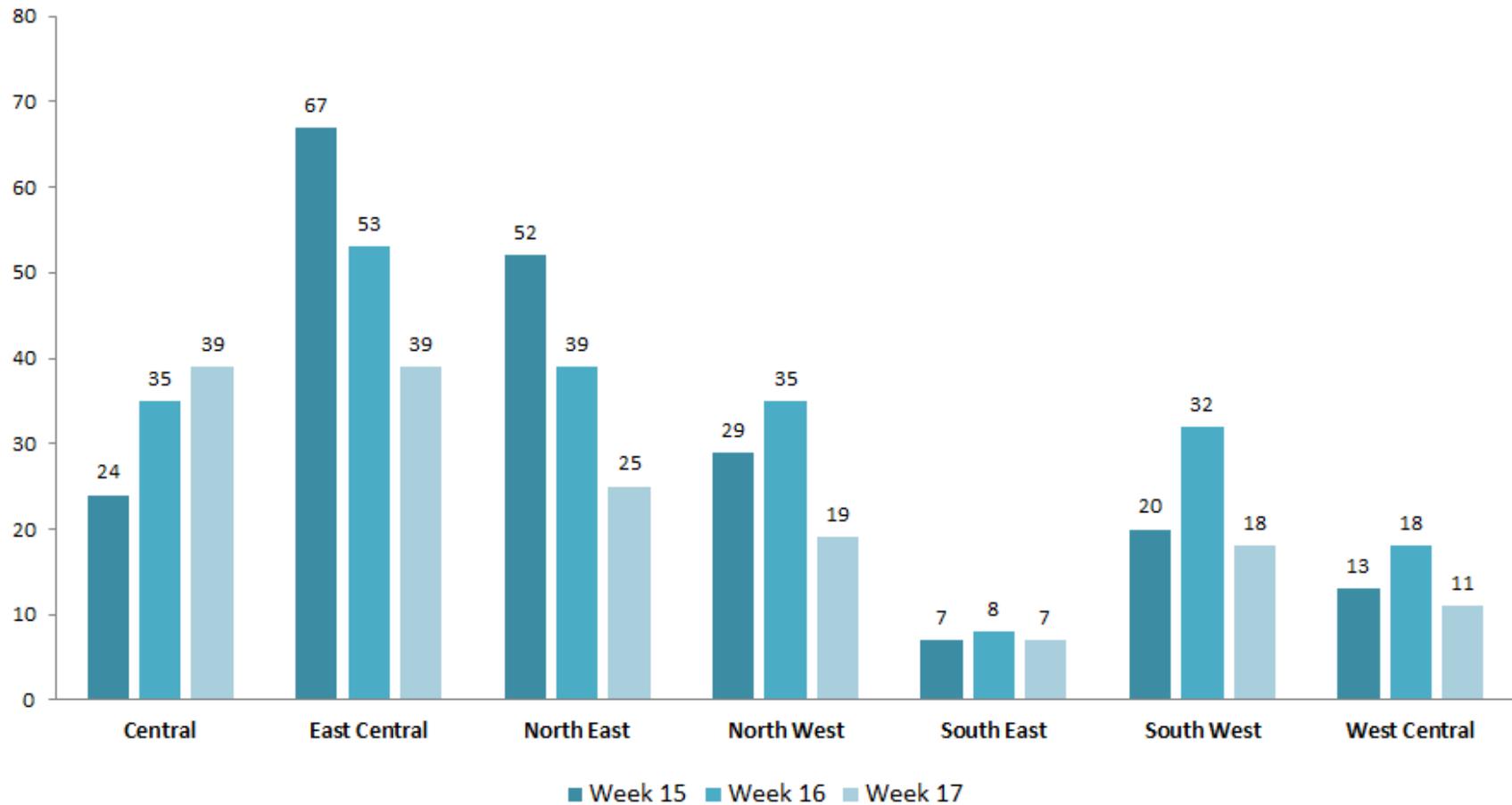
County	Influenza-Associated Hospitalizations	Percent of All Influenza-Associated Hospitalizations	Rate per 100,000 Population [†]	County	Influenza-Associated Hospitalizations	Percent of All Influenza-Associated Hospitalizations	Rate per 100,000 Population [†]
ADAMS	3	0.1%	10.51	LOGAN	4	0.1%	8.72
ALLEN	90	2.6%	84.64	LORAIN	42	1.2%	13.94
ASHLAND	17	0.5%	31.99	LUCAS	221	6.4%	50.02
ASHTABULA	25	0.7%	24.63	MADISON	5	0.1%	11.51
ATHENS	8	0.2%	12.35	MAHONING	181	5.2%	75.79
AUGLAIZE	17	0.5%	37.00	MARION	11	0.3%	16.54
BELMONT	4	0.1%	5.68	MEDINA	43	1.2%	24.95
BROWN	0	0.0%	0.00	MEIGS	4	0.1%	16.83
BUTLER	92	2.7%	24.99	MERCER	13	0.4%	31.85
CARROLL	8	0.2%	27.74	MIAMI	16	0.5%	15.61
CHAMPAIGN	9	0.3%	22.45	MONROE	3	0.1%	20.49
CLARK	61	1.8%	44.10	MONTGOMERY	212	6.1%	39.61
CLERMONT	48	1.4%	24.32	MORGAN	10	0.3%	66.43
CLINTON	1	0.0%	2.38	MORROW	7	0.2%	20.10
COLUMBIANA	19	0.6%	17.62	MUSKINGUM	33	1.0%	38.34
COSHOCTON	7	0.2%	18.97	NOBLE	2	0.1%	13.66
CRAWFORD	4	0.1%	9.14	OTTAWA	8	0.2%	19.31
CUYAHOGA	589	17.1%	46.01	PAULDING	5	0.1%	25.49
DARKE	16	0.5%	30.21	PERRY	0	0.0%	0.00
DEFIANCE	19	0.6%	48.67	PICKAWAY	19	0.6%	34.11
DELAWARE	17	0.5%	9.76	PIKE	7	0.2%	24.38
ERIE	8	0.2%	10.38	PORTAGE	37	1.1%	22.92
FAIRFIELD	23	0.7%	15.74	PREBLE	10	0.3%	23.66
FAYETTE	7	0.2%	24.11	PUTNAM	15	0.4%	43.48
FRANKLIN	280	8.1%	24.07	RICHLAND	34	1.0%	27.31
FULTON	18	0.5%	42.16	ROSS	19	0.6%	24.34
GALLIA	7	0.2%	22.63	SANDUSKY	18	0.5%	29.54
GEAUGA	27	0.8%	28.91	SCIOTO	4	0.1%	5.03
GREENE	31	0.9%	19.19	SENECA	7	0.2%	12.34
GUERNSEY	12	0.3%	29.93	SHELBY	4	0.1%	8.09
HAMILTON	181	5.2%	22.56	STARK	150	4.3%	39.94
HANCOCK	8	0.2%	10.70	SUMMIT	179	5.2%	33.04
HARDIN	7	0.2%	21.84	TRUMBULL	70	2.0%	33.28
HARRISON	2	0.1%	12.61	TUSCARAWAS	25	0.7%	27.00
HENRY	7	0.2%	24.81	UNION	10	0.3%	19.12
HIGHLAND	6	0.2%	13.76	VAN WERT	9	0.3%	31.31
HOCKING	8	0.2%	27.23	VINTON	3	0.1%	22.33
HOLMES	14	0.4%	33.05	WARREN	46	1.3%	21.63
HURON	17	0.5%	28.51	WASHINGTON	27	0.8%	43.70
JACKSON	7	0.2%	21.07	WAYNE	29	0.8%	25.32
JEFFERSON	36	1.0%	51.64	WILLIAMS	6	0.2%	15.94
KNOX	2	0.1%	3.28	WOOD	31	0.9%	24.70
LAKE	49	1.4%	21.30	WYANDOT	3	0.1%	13.27
LAWRENCE	23	0.7%	36.83	UNKNOWN	0	0.0%	*
LICKING	33	1.0%	19.82	TOTAL	3449	100%	29.90

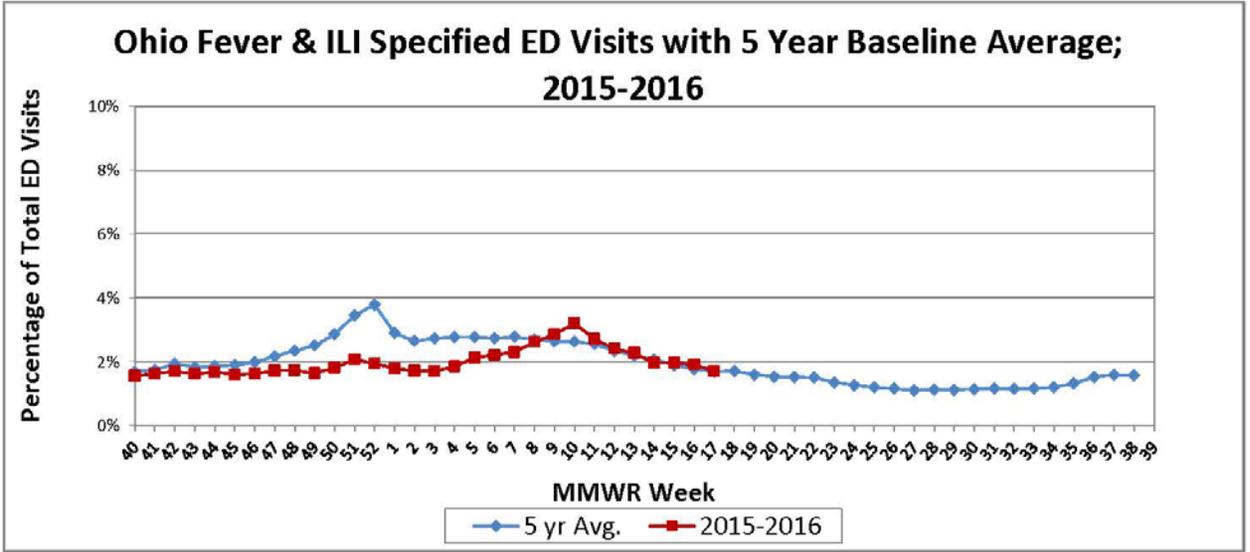
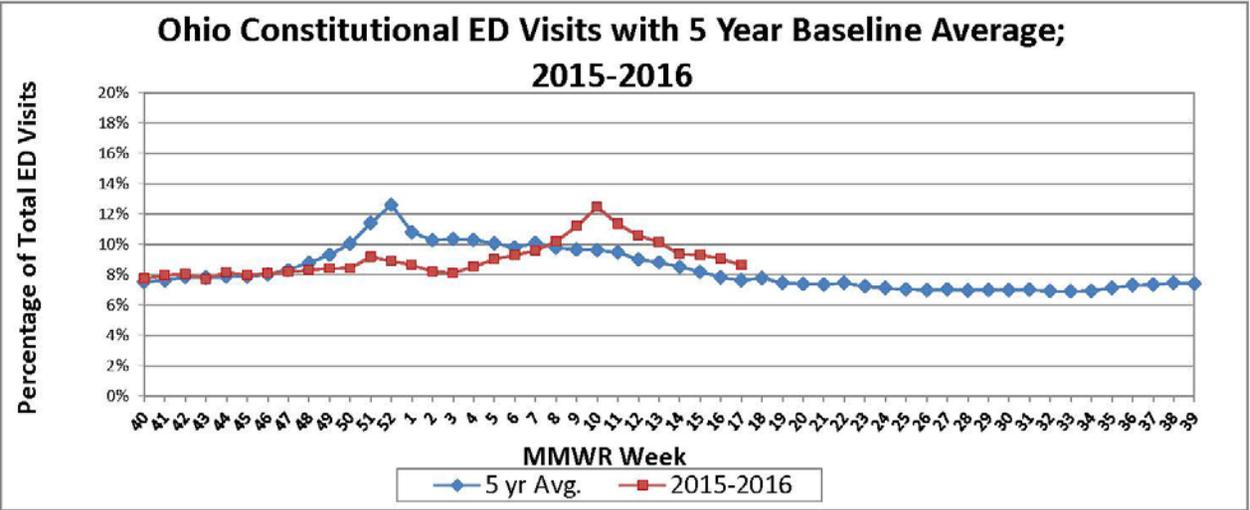
*2015-2016 Season 10/4/2015 thru 4/30/2016

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

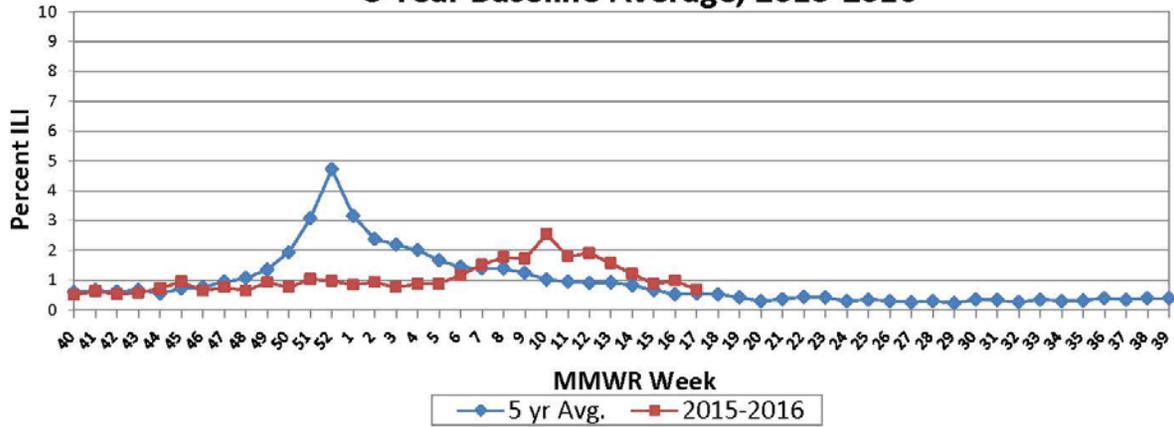
Source: Ohio Disease Reporting System

Influenza-associated Hospitalizations by Public Health Region and MMWR Week, Ohio, 2015-2016 Influenza Season

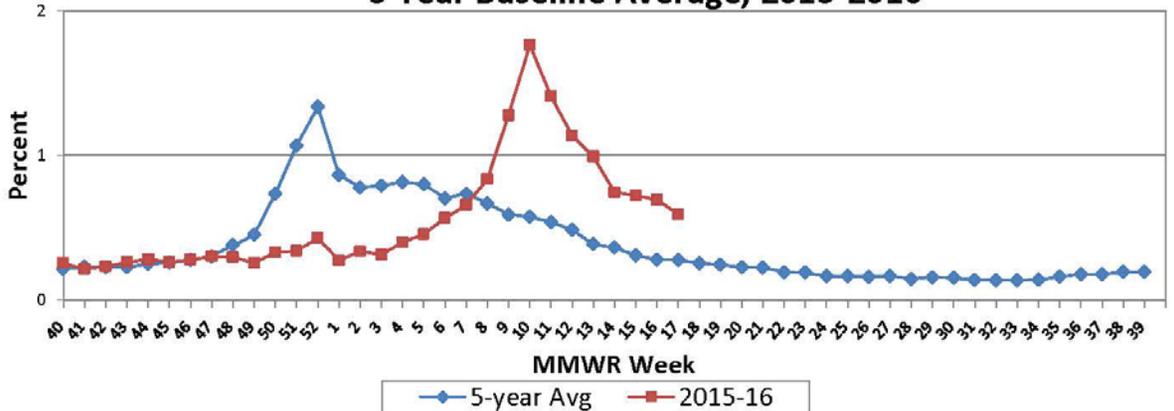


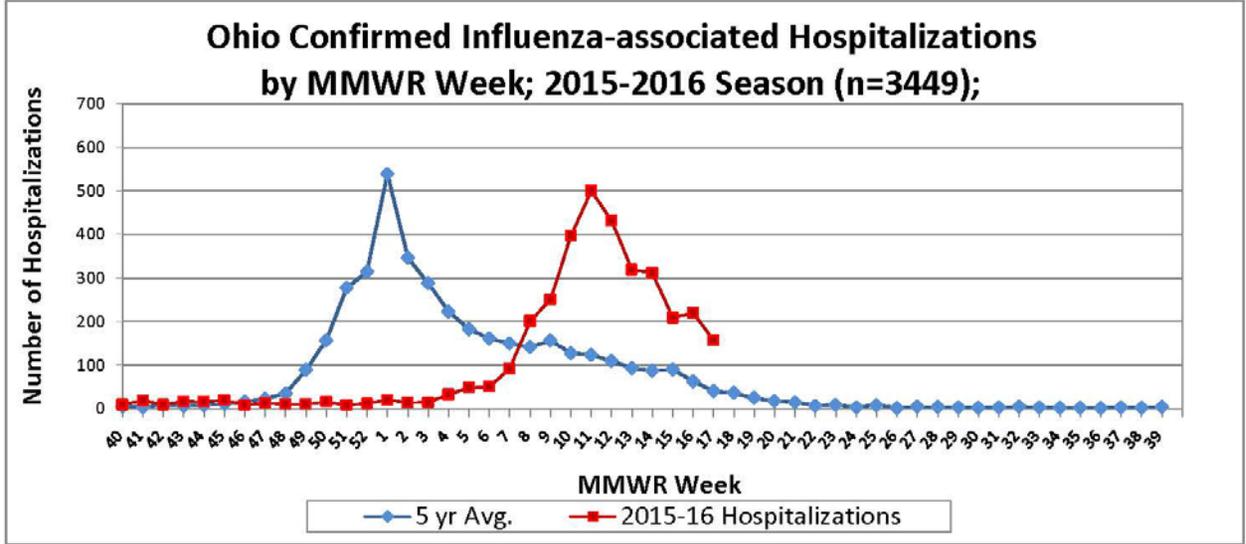
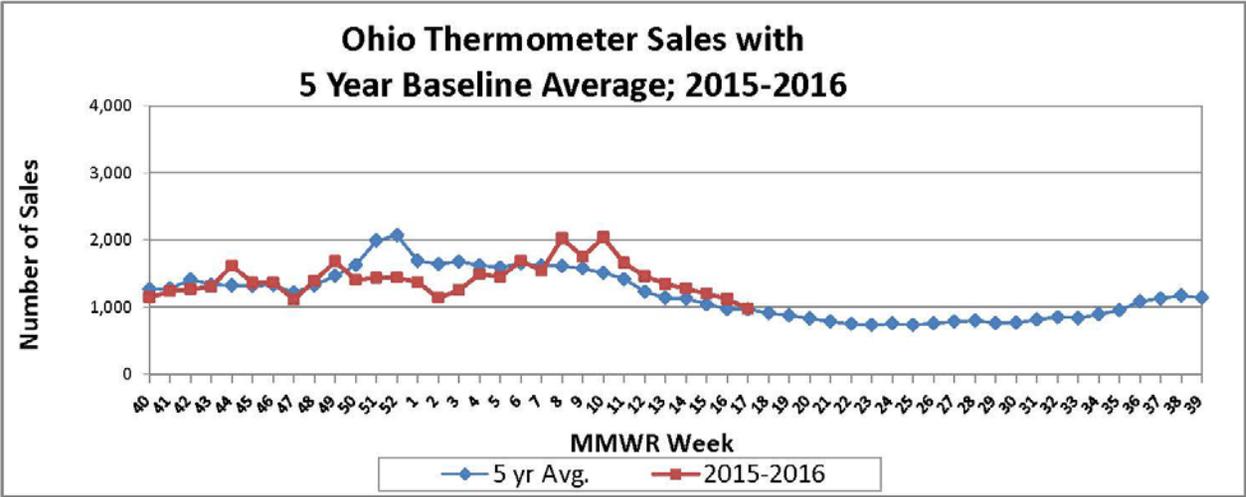


Ohio Outpatient Influenza-like Illness Network (ILINet) with 3 Year Baseline Average; 2015-2016



AthenaHealth: Ohio Influenza Related Outpatient Medical Claims 5 Year Baseline Average; 2015-2016





Sources of Influenza Surveillance Data

- **National Retail Data Monitor (NRDM)-OTC Drug Purchases:** The NRDM collects over-the-counter (OTC) drug sales information from approximately 1,420 Ohio chain drug stores and grocery stores. For influenza surveillance, thermometer and adult cold relief sales are monitored on a weekly basis.
- **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 81 sentinel providers enrolled in Ohio for the 2015-2016 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.
- **122 Cities Mortality Reporting System (Vital Statistics):** Ohio's eight largest cities participate in this reporting on a weekly basis. Vital statistics offices from across the country report the number of death certificates received, along with how many of those have pneumonia or influenza listed as an underlying or contributing cause of death.
- **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.

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