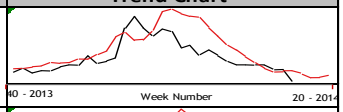
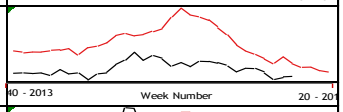
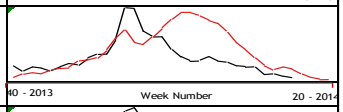
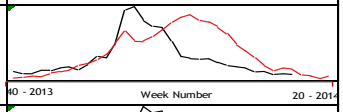
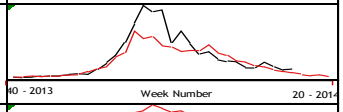
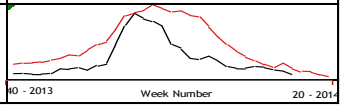
Ohio Department of Health Seasonal Influenza Activity Summary
MMWR Week 18
April 27th – May 3rd, 2014

This is the final Seasonal Influenza Activity Summary of the 2013-2014 Influenza Season

Current Influenza Activity Levels:

- **Ohio:** Local
  - Definition: Increased ILI in 1 region; ILI activity in other regions is not increased AND recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI, OR 2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased AND recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions.
- **Summary**: Public health surveillance data sources indicate minimal intensity for influenza-like illness in outpatient settings reported by Ohio's sentinel providers. Ten influenza-associated hospitalizations were reported in the Central Region, 6 in the East Central Region, 17 in the Northeast Region, 3 in the Northwest Region, 1 in the Southeast Region, 7 in the Southwest Region, and 3 in the West Central Region. The percentage of emergency department visits with patients exhibiting constitutional symptoms are below baseline levels statewide.
- **Regional:** States surrounding Ohio are reporting Minimal influenza activity. Pennsylvania and Ohio report Local activity. Indiana, Kentucky, Michigan, and West Virginia report Sporadic activity. Levels of influenza-like illness from sentinel providers are at normal baseline levels for the region.
- **National:** During week 17 (April 20th– April 26th, 2014), influenza activity continued to decrease in most regions of the U.S. The proportion of outpatient visits for ILI was 1.5%, which is below the national baseline of 2.0%. Two of 10 regions reported a proportion of outpatient visits at or above their region-specific baseline level (Ohio is in Region 5). The geographic spread of influenza activity was reported as Widespread in 4 states; Puerto Rico and 2 states reported Regional activity; 13 states reported Local activity; the District of Columbia and 27 states reported Sporadic activity; 4 states reported No Activity; and Guam and the U.S. Virgin Islands did not report.

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 (Sentinel Provider Visits)	0.21%	-63.16%	↓ 1	
Thermometer Sales	920	1.32%	↑ 2	
Fever and ILI Specified ED Visits	1.54%	-2.53%	↓ 2	
Constitutional ED Visits	7.50%	-0.53%	↓ 1	
Confirmed Influenza-associated Hospitalizations	47	9.30%	↑ 1	
Google Flu Trends (Flu-related Internet Search Queries)	0.93%	-13.89%	↓ 4	

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

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

[3]Black lines are data from the current season. Red lines are baseline averages and the blue line is data from the previous season. Data from the 2009-10 season was not used for baseline calculations due to the irregular pattern caused by the H1N1 pandemic.

State Surveillance Data:

- ODH lab reported results for those cases that are PCR positive for seasonal influenza. Positive results: (205) A/PdH1; (4) A H3N2; (10) Influenza B (through 4/26/14).
- No pediatric influenza-associated mortalities have been reported for the 2013-14 season (through 5/3/14).
- Incidence of confirmed influenza-associated hospitalizations in 2013-2014 season = 3489 (through 5/3/14).

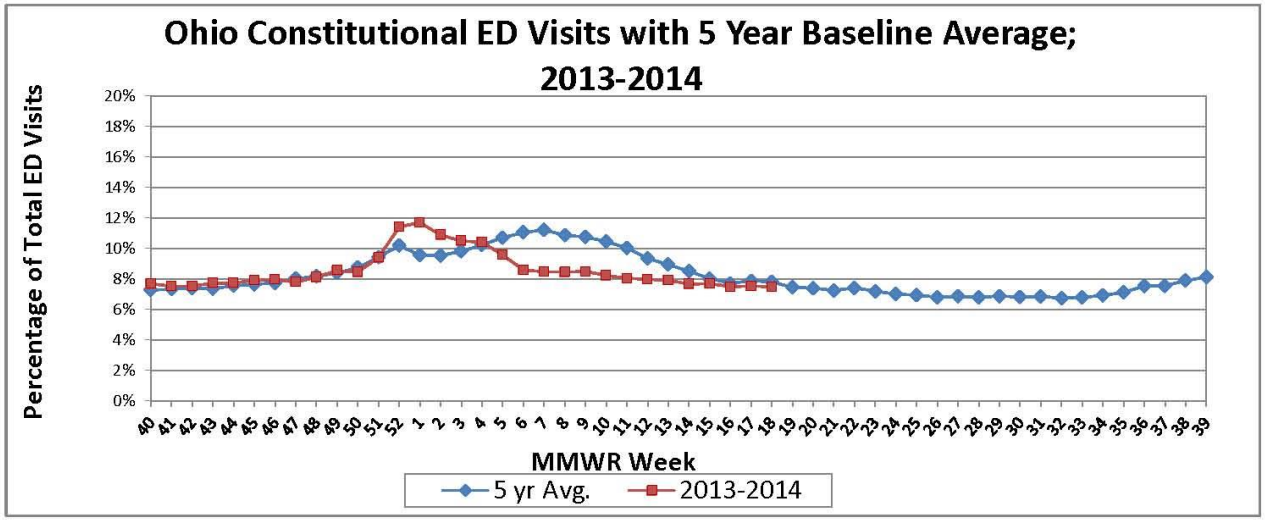
Analysis Considerations:

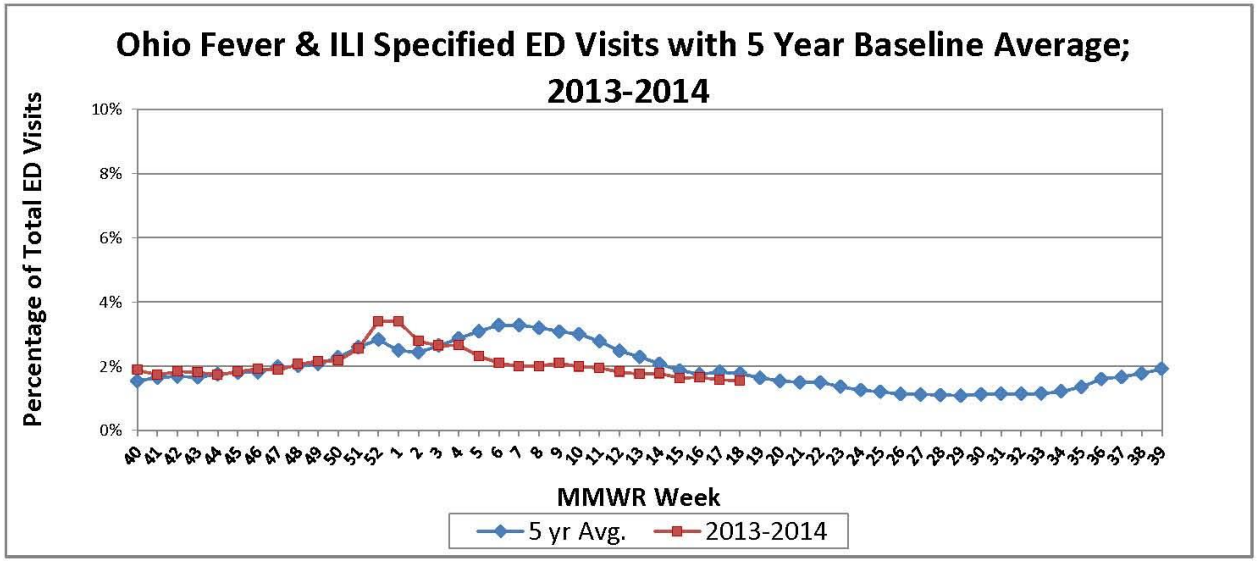
- Historical data from the 2009-10 influenza season was not used for baseline calculations due to the irregular pattern caused by the H1N1 pandemic.

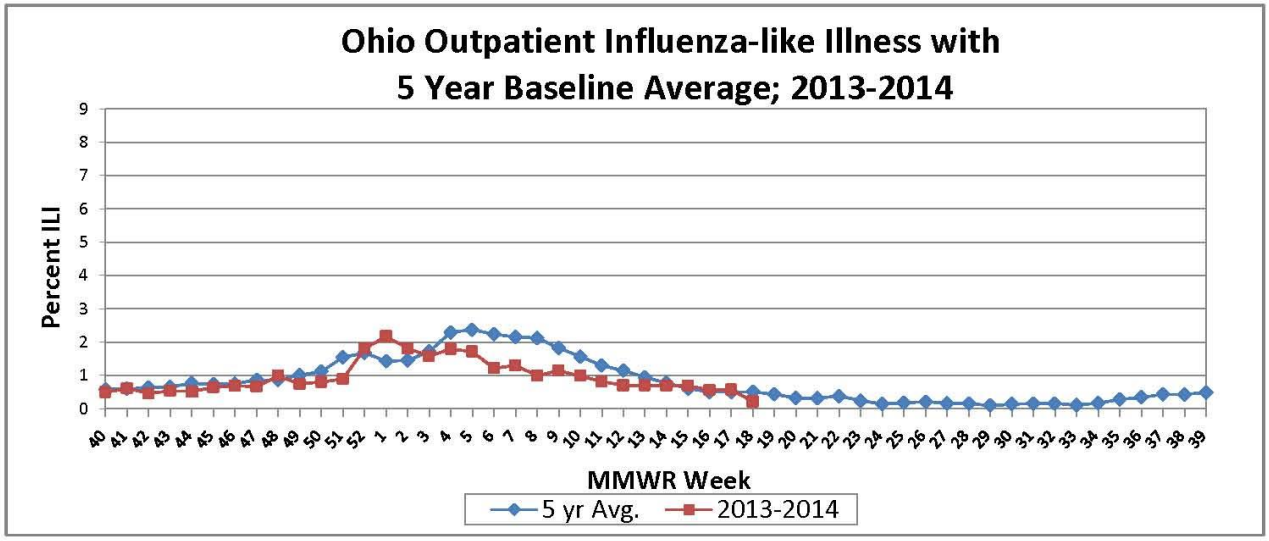
National activity levels and more information can be found at the following CDC pages:

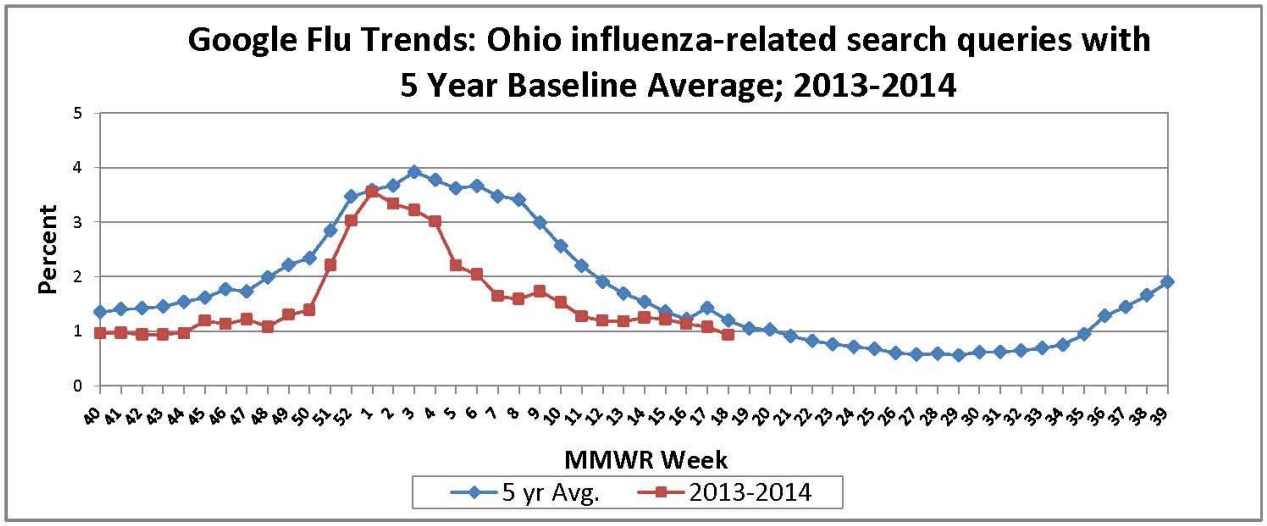
- http://www.cdc.gov/flu/weekly/usmap.htm
- http://www.cdc.gov/flu/

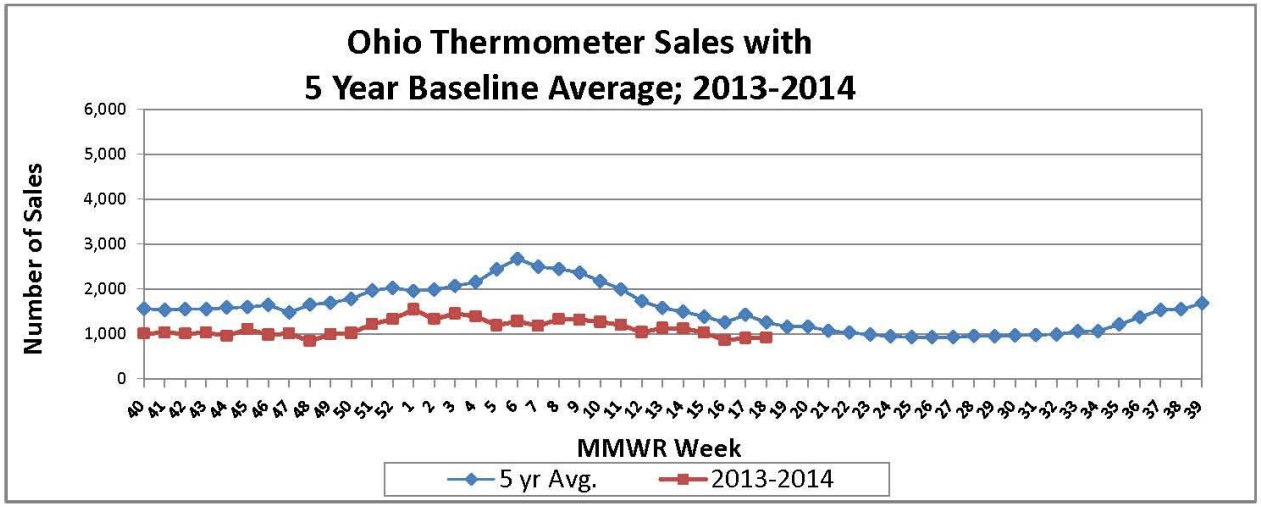
If you have any further questions or comments about surveillance for seasonal influenza for the State of Ohio, please contact the Public Health Informatics and Vaccine Preventable Disease Epidemiology Unit at SMED@odh.ohio.gov or call (614) 995-5599.

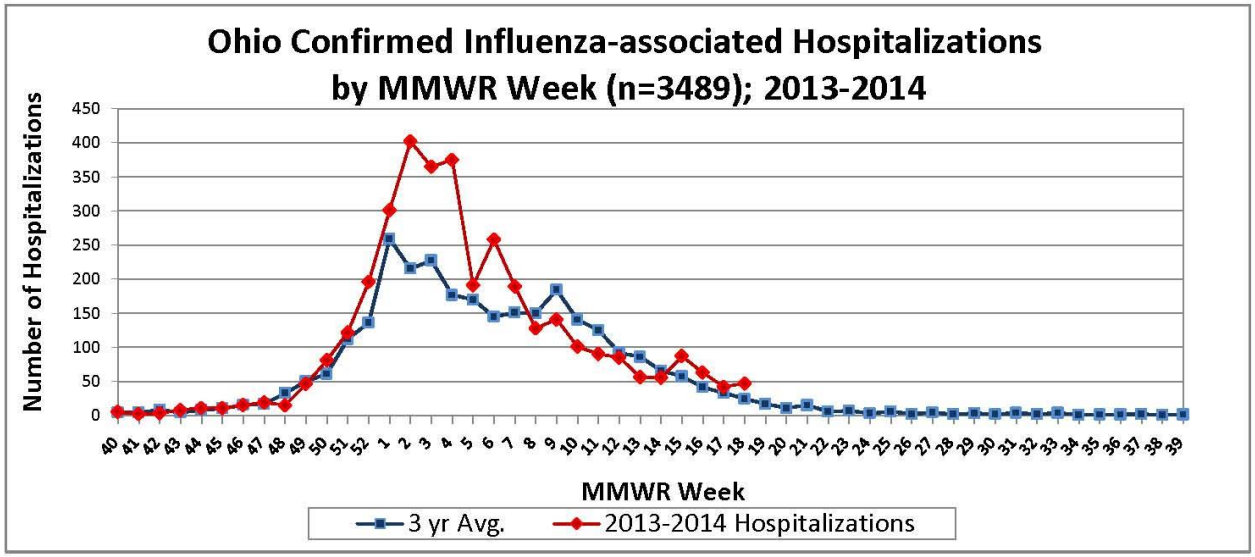

Ohio Constitutional ED Visits with 5 Year Baseline Average; 2013-2014
Percentage of Total ED Visits
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
MMWR Week
5 yr Avg.
2013-2014


Ohio Fever & ILI Specified ED Visits with 5 Year Baseline Average; 2013-2014
Percentage of Total ED Visits
10%
8%
6%
4%
2%
0%
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
MMWR Week
5 yr Avg.
2013-2014

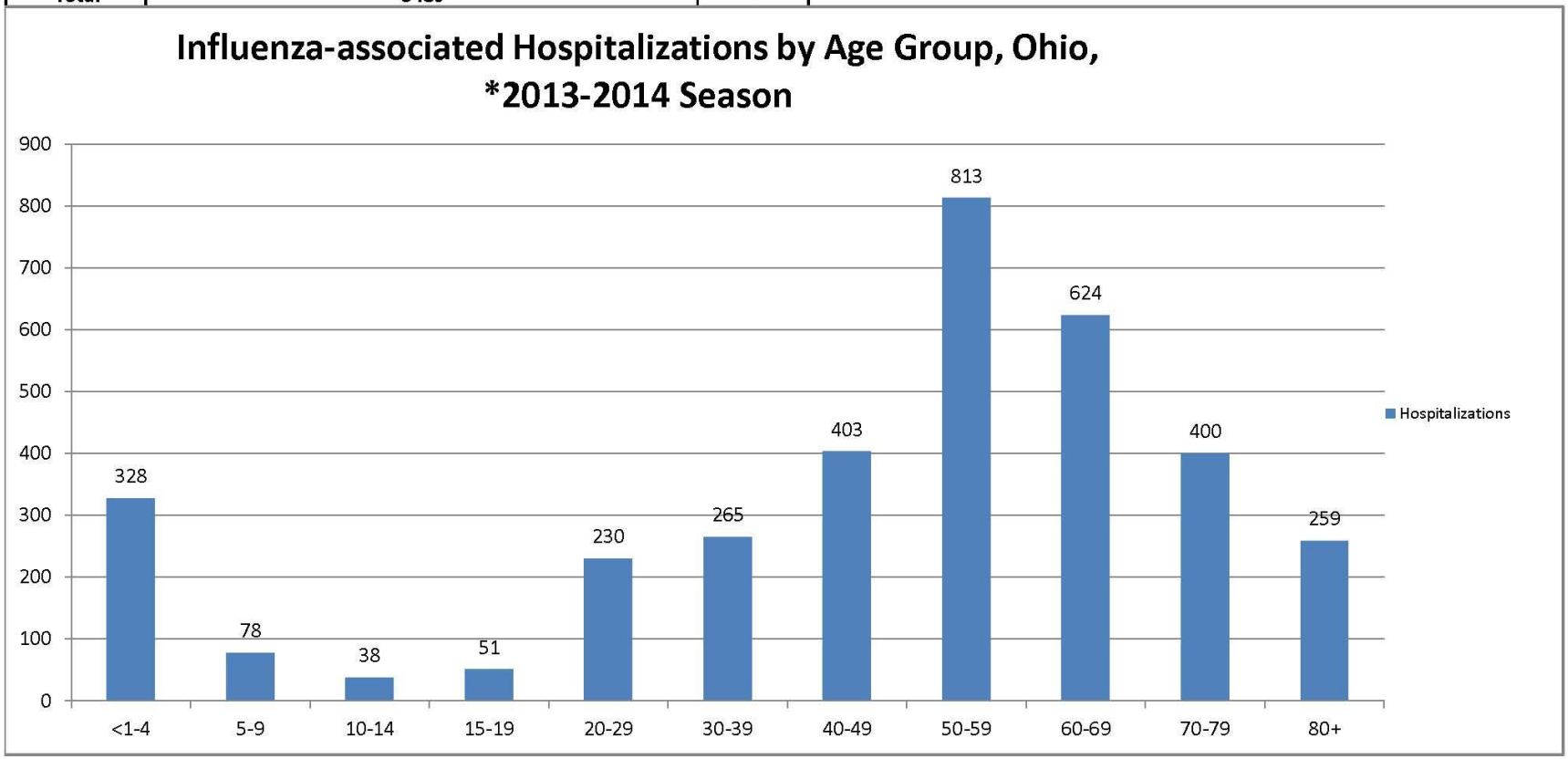

Ohio Outpatient Influenza-like Illness with
5 Year Baseline Average; 2013-2014
Percent ILI
MMWR Week
5 yr Avg.
2013-2014


Google Flu Trends: Ohio influenza-related search queries with
5 Year Baseline Average; 2013-2014
Percent
MMWR Week
5 yr Avg.
2013-2014


Ohio Thermometer Sales with
5 Year Baseline Average; 2013-2014
Number of Sales
6,000
5,000
4,000
3,000
2,000
1,000
0
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
MMWR Week
5 yr Avg.
2013-2014


Ohio Confirmed Influenza-associated Hospitalizations
by MMWR Week (n=3489); 2013-2014
Number of Hospitalizations
450
400
350
300
250
200
150
100
50
0
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
MMWR Week
3 yr Avg.
2013-2014 Hospitalizations

Influenza-associated Hospitalizations, Ohio, *2013-2014 Season		
Age Group	**Hospitalizations**	**Rate†**
<1-4	328	56.375405
5-9	78	10.429355
10-14	38	4.9051309
15-19	51	6.1917099
20-29	230	15.522229
30-39	265	18.797112
40-49	403	24.930359
50-59	813	48.568803
60-69	624	54.532441
70-79	400	59.800655
80+	259	54.611164
Unknown	0	-
Total	**3489**	**-**



*2013-2014 Season, 9/29/2013 thru 4/23/2014

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

Source: Ohio Disease Reporting System

Sources of Influenza Surveillance Data

Eight types of data sources are examined on a weekly basis to help determine the influenza activity level for Ohio:

- **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.
- **Google Flu Trends:** Google Flu Trends tracks influenza-related internet search queries and uses these counts as estimates of influenza-like illness (ILI) in each state. See http://www.google.org/flutrends/ for more information.
- **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 86 sentinel providers enrolled in Ohio for the 2013-2014 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.