Ohio Department of Health Seasonal Influenza Activity Summary
MMWR Week 2
January 9-15, 2011

Current Influenza Activity Levels:

- **Ohio:** Regional Activity
  - Definition: Increased ILI in ≥ 2 regions 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.
- **Summary**: Public health surveillance data sources indicate minimal activity for influenza-like illness (ILI) in outpatient settings reported by Ohio's sentinel providers. The percentage of emergency department visits with patients exhibiting constitutional symptoms remains above baseline level. Thermometer sales continue to remain below baseline level statewide. Sixty three influenza-associated hospitalizations were reported: 24 in the Central, 14 in the East Central, eight in the Northeast, seven in the West Central, four in the Southwest, three in the Northwest, and three in the Southeast region.
- **Regional:** States surrounding Ohio are reporting local and regional influenza activity; Kentucky continues to report widespread activity. Levels of influenza-like illness from sentinel providers are below baseline for the region.
- **National:** During week 1 (January 2-8, 2011), influenza activity in the U.S. decreased in several indicators, but it is unlikely that influenza activity for this season has peaked. The proportion of outpatient visits for ILI was 2.2%, which is below the national baseline of 2.5%. One of the 10 regions (Region 4) reported ILI above region-specific baseline levels (Ohio is in Region 5). The geographic spread of influenza in 11 states was reported as widespread; 17 states reported regional activity; the District of Columbia and 16 states reported local activity; the U.S. Virgin Islands and six states reported sporadic influenza activity; and Guam reported no influenza activity. Puerto Rico did not report.

State Surveillance Data:

- Influenza-like Illness (ILI): Sentinel Providers reported 0.85% of patients had ILI signs and symptoms. Influenza-like Illness is defined as a fever (≥ 100◦ F), **and** cough and/or sore throat. Temperature can be measured in the physician's office or at home.
- ODH lab reported results for those cases that are PCR positive for seasonal influenza. Positive results: (8) influenza A/H3, (5) influenza A/2009 H1N1, (3) Influenza B (total through 1/17/11).
- No pediatric influenza-associated mortalities have been reported (through 1/18/11).
- Incidence of confirmed influenza-associated hospitalizations in 2010-2011 season = 238 (total through 1/15/11).

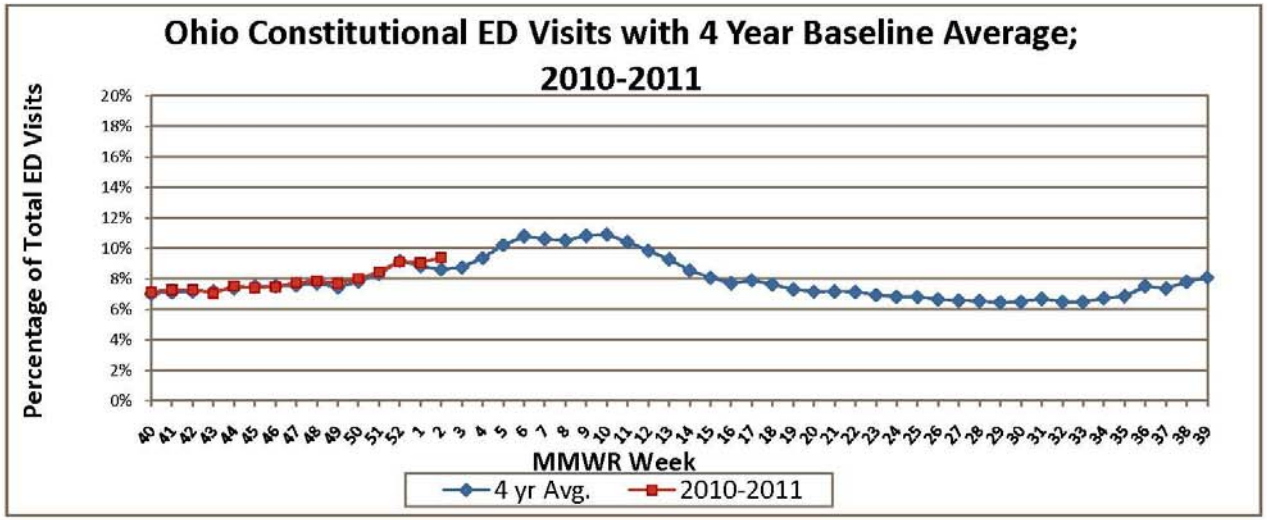
Analysis Considerations:

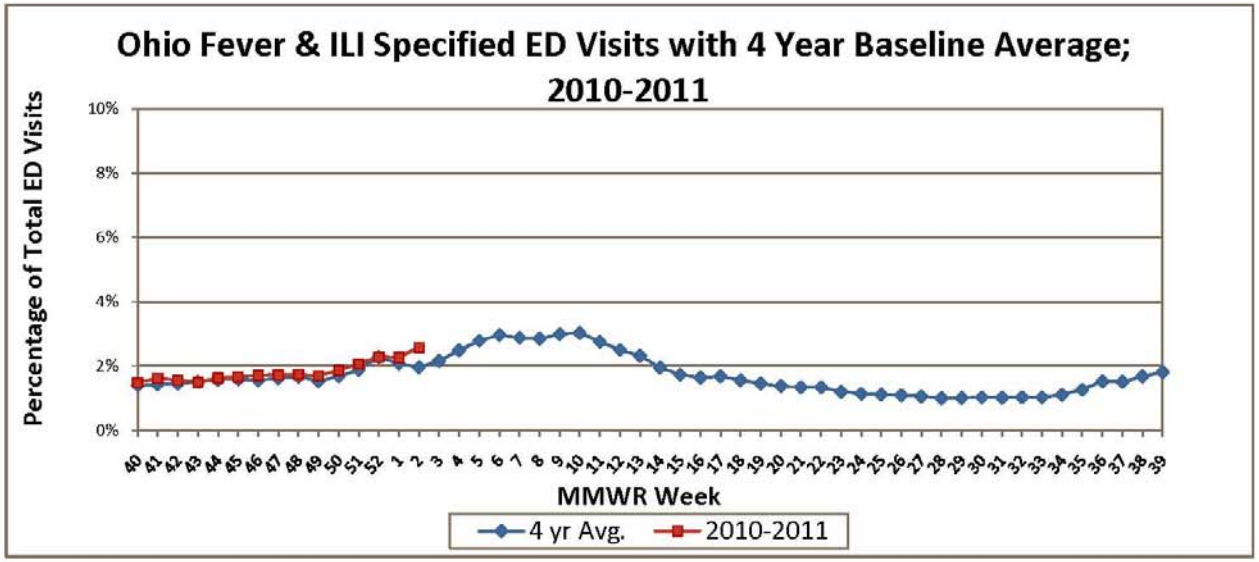
- Historical data from the 2009-10 influenza season was not used for baseline calculations due to the irregular pattern caused by the H1N1 pandemic.

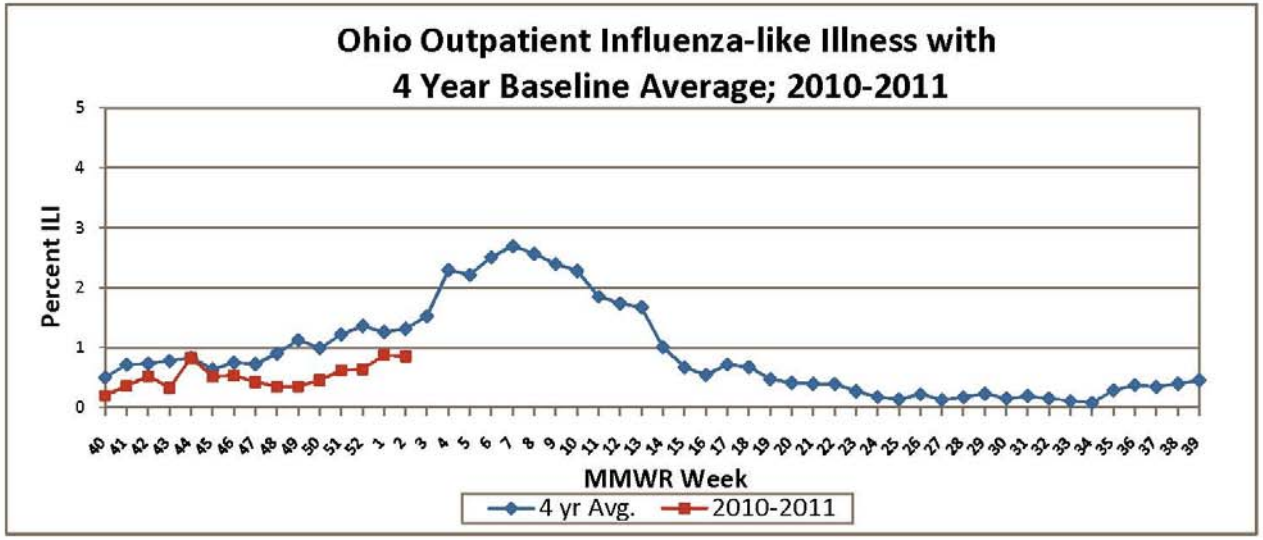
National activity levels and more information can be found at the following CDC pages:

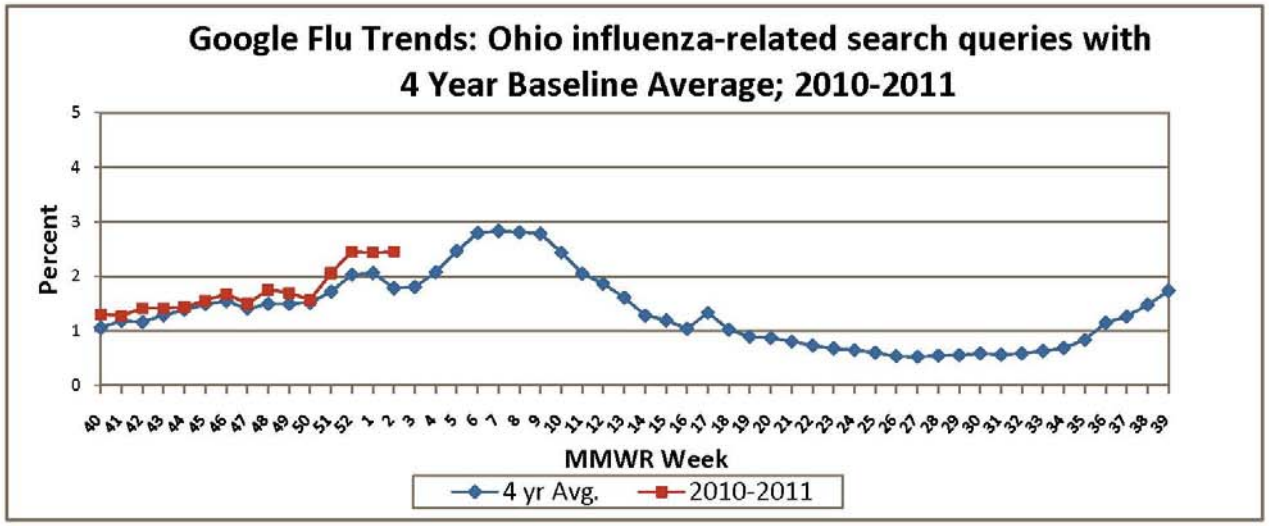
- http://www.cdc.gov/flu/weekly/usmap.htm
- http://www.cdc.gov/flu/

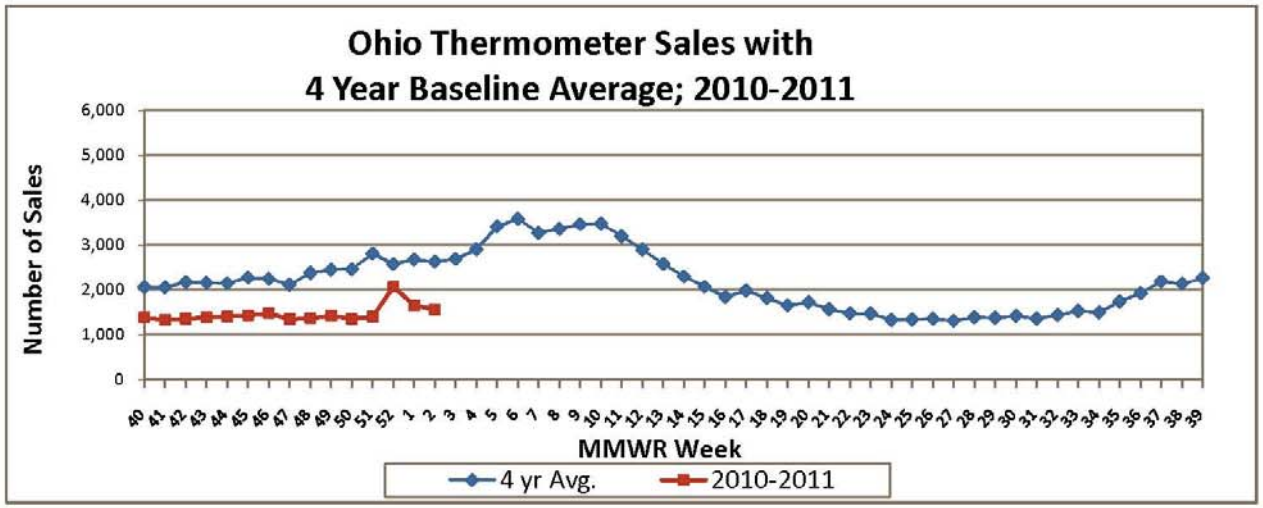
If you have any further questions or comments about surveillance for seasonal influenza for the State of Ohio, please contact the Situational Monitoring and Event Detection Unit at SMED@odh.ohio.gov or call (614) 995-5599.

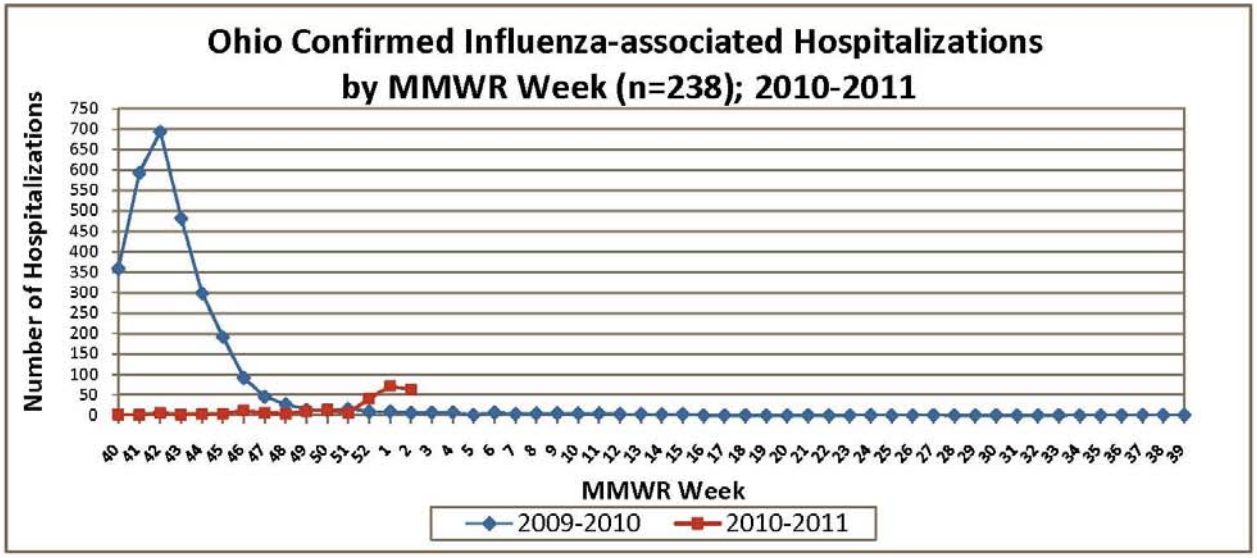

Ohio Constitutional ED Visits with 4 Year Baseline Average; 2010-2011
Percentage of Total ED Visits
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
MMWR Week
4 yr Avg.
2010-2011


Ohio Fever & ILI Specified ED Visits with 4 Year Baseline Average; 2010-2011
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
4 yr Avg.
2010-2011


Ohio Outpatient Influenza-like Illness with
4 Year Baseline Average; 2010-2011
Percent ILI
MMWR Week
4 yr Avg.
2010-2011


Google Flu Trends: Ohio influenza-related search queries with
4 Year Baseline Average; 2010-2011
Percent
MMWR Week
4 yr Avg.
2010-2011


Ohio Thermometer Sales with
4 Year Baseline Average; 2010-2011
Number of Sales
6,000
5,000
4,000
3,000
2,000
1,000
0
MMWR Week
4 yr Avg.
2010-2011


Ohio Confirmed Influenza-associated Hospitalizations
by MMWR Week (n=238); 2010-2011
Number of Hospitalizations
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
MMWR Week
2009-2010
2010-2011

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.
- **Emergency Department Visits (EpiCenter):** EpiCenter collects emergency department chief complaint data from 154 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 ILI data. 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 68 sentinel providers enrolled in Ohio for the 2010-2011 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.