STARK COUNTY INFLUENZA SNAPSHOT, WEEK 10

Week ending March 9, 2013, with updates through 03/17/2013.

All data are preliminary and may change as additional information is received.

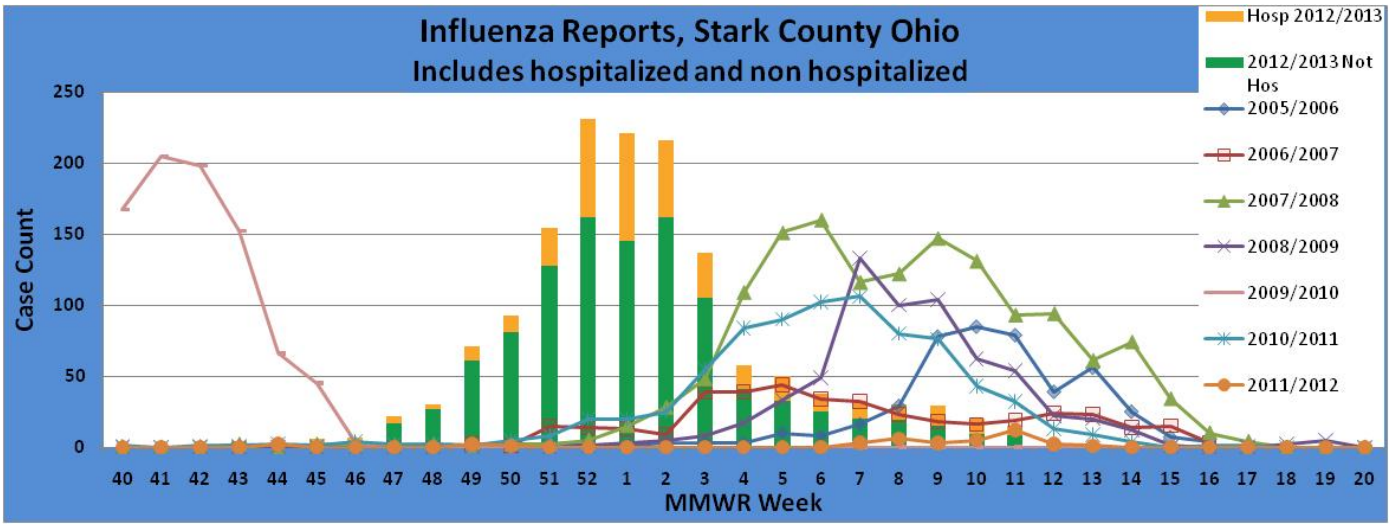
NOTE: Compilation of multiyear averages does not include the 2009/2010 H1N1 season.

During week 10, (Mar 3– Mar 9, 2013) influenza B continues to be reported, possibly accounting for a decrease in the median age affected by influenza in our community. Nationally, decreasing activity is noted in nearly all areas, however evidence of serious health outcomes remains; 12 pediatric influenza associated deaths were reported and deaths attributable to pneumonia and influenza remain above baseline levels.

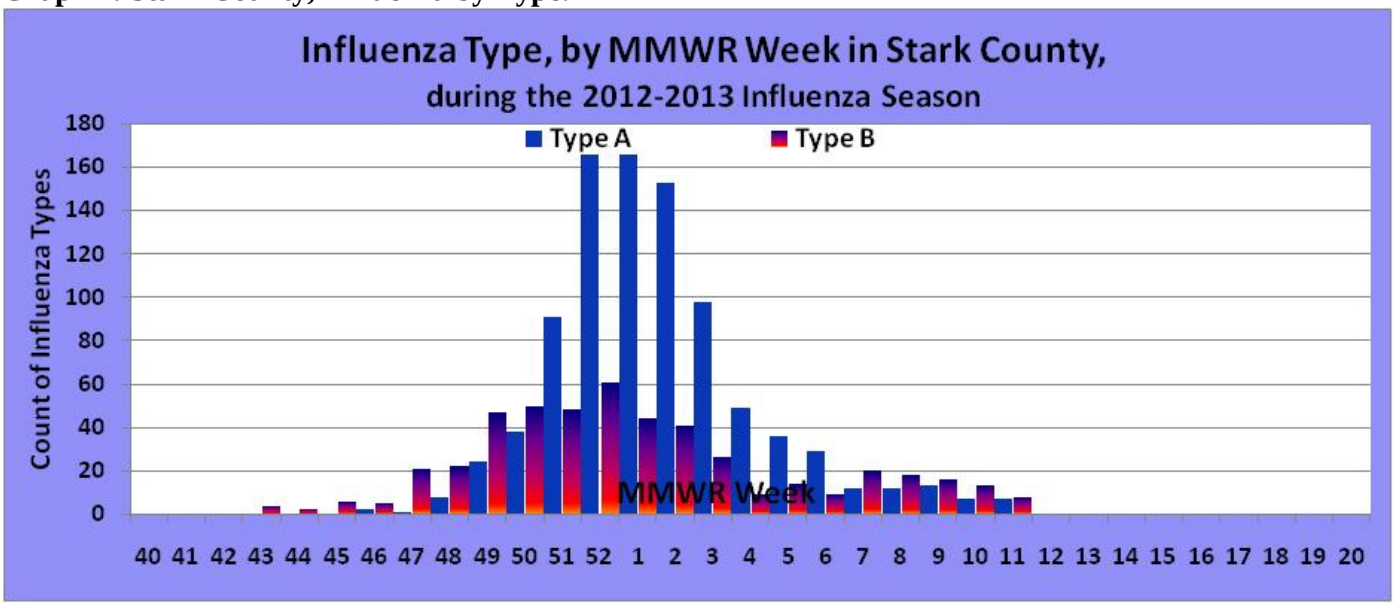
- **Eleven influenza-associated hospitalizations** and **nine non-hospitalized** cases were reported in Stark County residents during week CDC week 10. Four hundred (400) hospitalizations and 1,067 non-hospitalized cases have been reported this season. (Graph 1)
- Influenza B was the predominant strain identified locally in both hospitalized and non-hospitalized positive reports (65%) in week 10. (Graph 2) Nationally, the CDC has antigenically characterized 1,616 influenza viruses collected by U.S. laboratories since October 1, 2012: One hundred forty one (8.7%) 2009 H1N1 viruses, 1,012 (62.6%) influenza A (H3N2) viruses, and 463 (28.66%) influenza B viruses. Among the influenza B viruses 334 (72.1%) are from the Yamagata Lineage which is a part of this season's vaccine and 129 (27.9%) are Victoria Lineage.
- This season there is a 10-year age gap in the median age among influenza A (74 years) compared to influenza B (64 years). This difference combined with the increase in the percentage of influenza B in the community may have led to a decrease in the median age affected. The age group with the highest cumulative rate of hospitalizations is 85+ at a rate of 84.4 per 10,000, in contrast the age group with the highest rate of positive lab results is 0-4 year old at a rate of 77.87 per 10,000. Cases range in age from 2 weeks to > 90 years. Hospitalized median age is 71.5 years and lab positive cases have a median age of 30 years.
- Nationally, a cumulative rate for the season of 39.6 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Locally, the cumulative rate for the season is 106.7 per 100,000.
- Week 10 indicators of outpatient activity of influenza-like-illness (ILI), as reported by Sentinel Providers **increased** nationally to 2.6%, which remains above the national baseline of 2.2%. Local ILI is incomplete in week 10. (Graph 3)
- Emergency Departments (ED) and Stat Cares continue to show little variance during the previous 4 weeks for both Constitutional or Respiratory (C & R) Syndrome visits and Influenza-Like-Illness (ILI) + Fever syndrome. C & R constituted 30% of visits and ILI + Fever accounted for 3.4%. (Graph4)
- Over-The-Counter sales of Thermometers and Cough and Cold products both **decreased** and remain well **below** baseline. (Graph 5)
- School absenteeism **decreased** during week 10. With a robust 61 schools reporting, the median percentage of school absenteeism is 4.4%.
- During week 10, the State of Ohio geographic level of influenza activity remained at widespread. Nationally, widespread geographic activity was reported by 8 states, regional activity by 19 states, local activity was reported by 17 states, and sporadic activity by 6 states. (See Map)
- During CDC Week 10, National Pneumonia and Influenza (P & I) Mortality Surveillance of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I, **decreased** slightly to 7.6%. This remains above the P & I epidemic threshold, currently at 7.5%.
- Nationally, twelve influenza-associated pediatric deaths were reported to CDC during week 10. One death was associated with influenza A (H3), two were associated with an influenza A virus for which the subtype was not determined, and nine were associated with influenza B viruses. **Four** pediatric deaths have been confirmed from Ohio this season, and the nation has experienced 99.

For questions, or to receive this report weekly by email, send requests to either chenning@cantonhealth.org or drinkardl@starkhealth.org.

Graph 1: Influenza Cases reported to Local Health Departments Note, Influenza is only reportable if associated with a hospitalization; therefore, this only represents a small number of actual influenza cases in Stark County.

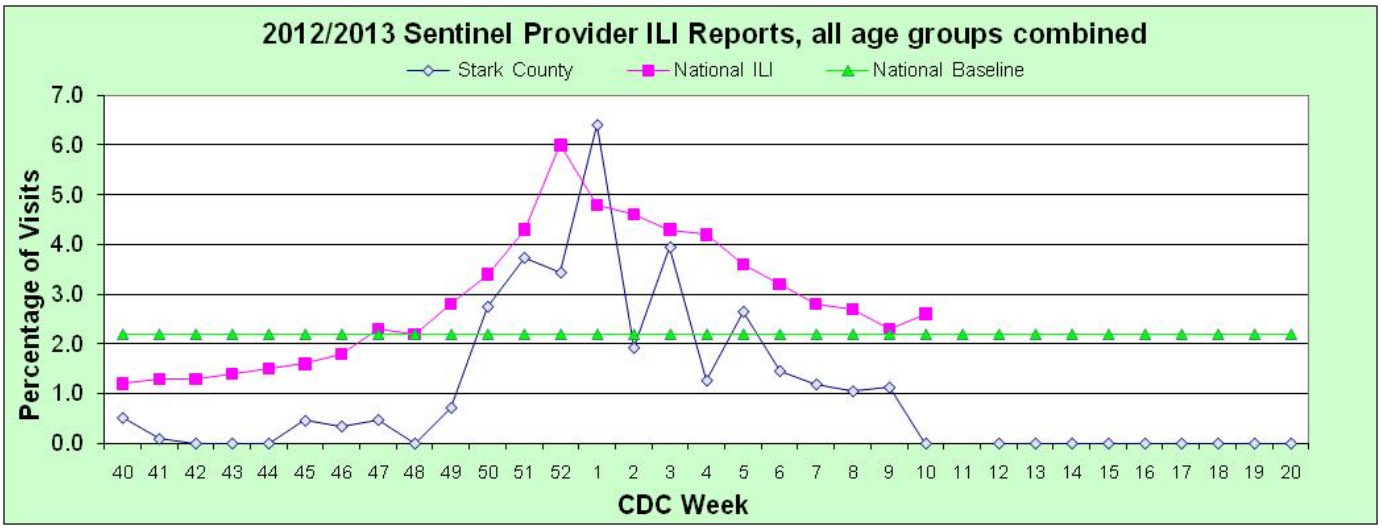


Graph 2: Stark County, Influenza by Type.



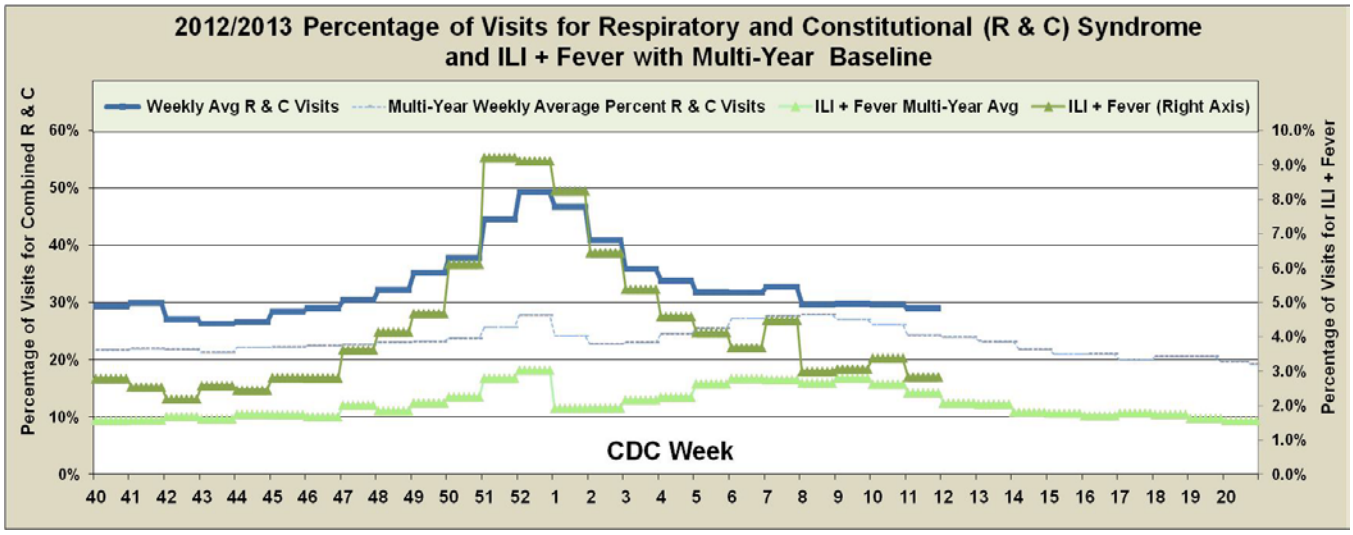
Graph 3: Sentinel Provider Reported Influenza-Like-Illness in Stark County

Sentinel Providers-An influenza sentinel provider conducts surveillance for influenza-like illness (ILI) in collaboration with the state health department and the Centers for Disease Control and Prevention (CDC). Data reported by Stark Counties 4 providers are combined with other influenza surveillance data to provide a national picture of influenza virus and ILI activity.



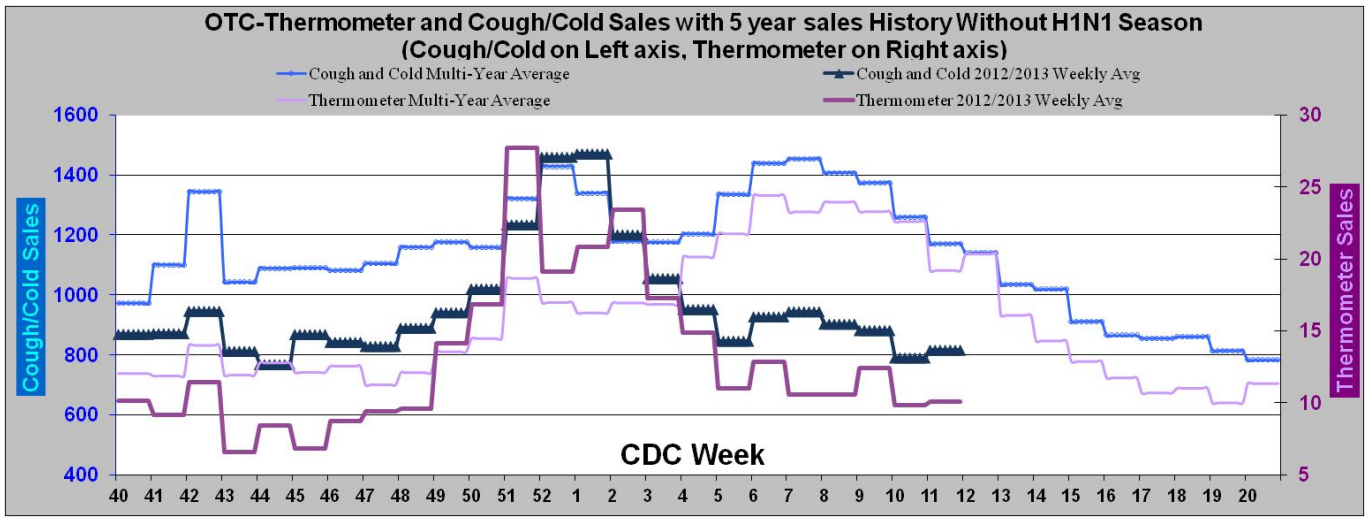
Graph 4: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

(Source Health Monitoring Systems, EpiCenter, hospital and stat care patient registration surveillance system)



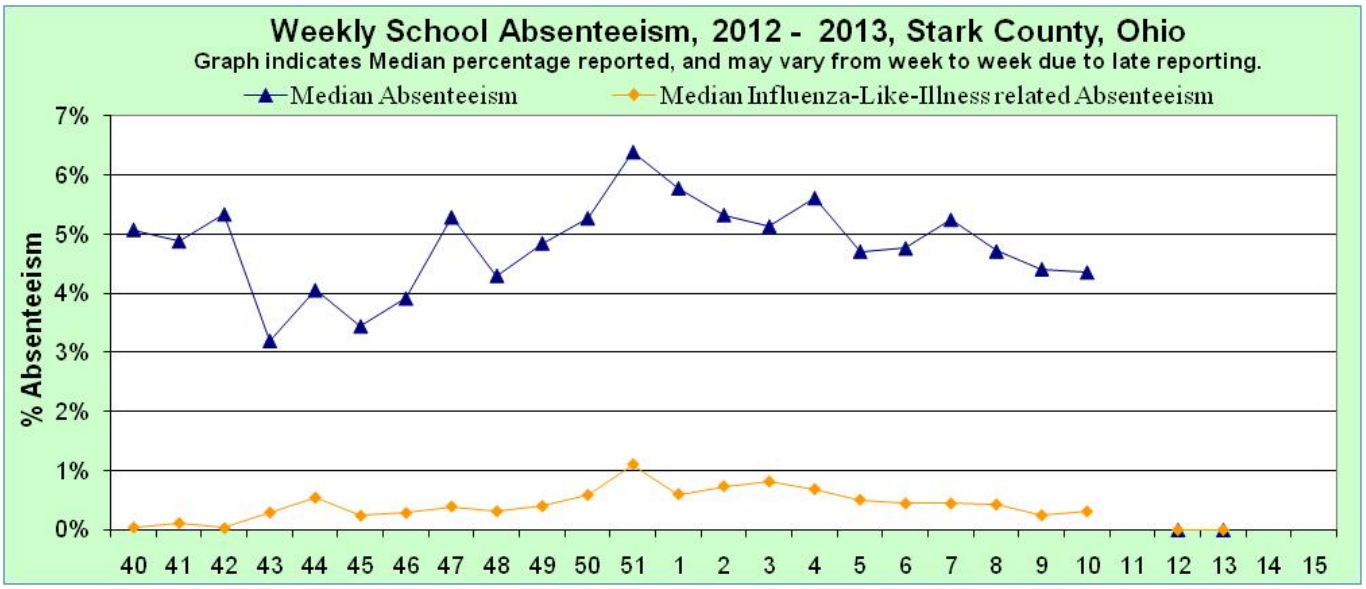
Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

Source: RODS Real time Outbreak Disease Surveillance, Retail pharmaceutical sales.



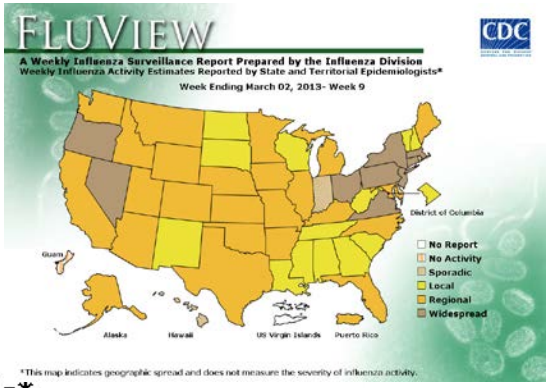
Graph 6: Stark County School

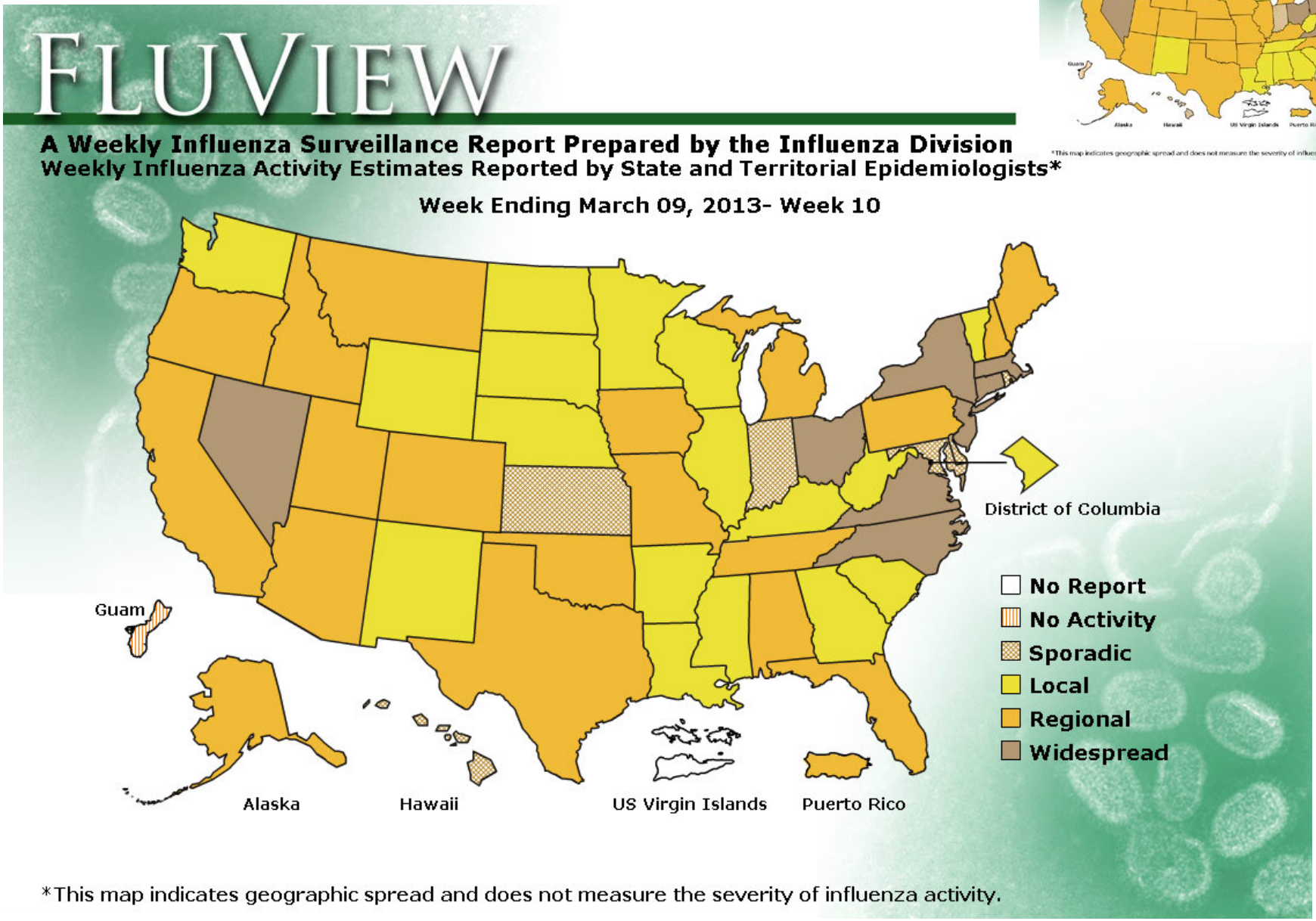
Source: Voluntary reporting by multiple school districts throughout the county.



Map: Weekly Geographic Influenza Activity Estimates Reported by State and Territorial Epidemiologists

(Inset is previous week)





Sources of Influenza Surveillance Data

Six types of data sources are examined on a weekly basis to help paint a picture of influenza activity in our community:

- **Emergency Department Visits (EpiCenter):** EpiCenter collects emergency department chief complaint data from 4 hospital facilities and 5 Stat Cares across Stark County in real time and classifies them into symptom and syndrome categories. Chief complaints from the combined constitutional and respiratory syndrome category and the fever + ILI symptoms classifier are analyzed for influenza surveillance. Secure sign in source: https://epicenter.hmsinc.com/epicenter/login.html.
- **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 from sales in Stark County. Secure sign in source: https://www.rods.pitt.edu/rods3/.
- **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 and 3 in Stark County for the 2011-2012 season. Source: Ohio Department of Health Influenza Surveillance Coordinator.
- **ODH and Local 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. Laboratory reports from larger physician practices and hospital laboratories in the county are voluntarily submitted each week to the four health departments. They may include age, zip code, and race and help to describe the demographic pattern of illness and type of influenza circulating in the community. Source for ODH information: http://www.odh.ohio.gov/features/odhfeatures/seasflu/ohfluactivity.aspx and individual medical and laboratory reports.
- **Influenza-associated Hospitalizations (ODRS):** Influenza-associated hospitalizations are reported to the four 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. Secure sign in source: https://odhgateway.odh.ohio.gov/singlesignon/.
- **School Absenteeism, total and ILI:** Numerous school systems of various sizes in Stark County report the number of students absent for medical reasons and for specific medical conditions including ILI. Increases in school absenteeism for ILI are often an early indicator to larger community trends. Source: Individual school reporting.