STARK COUNTY INFLUENZA SNAPSHOT, WEEK 52

Week ending December 29, 2012, with updates through 1/6/2013.

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.

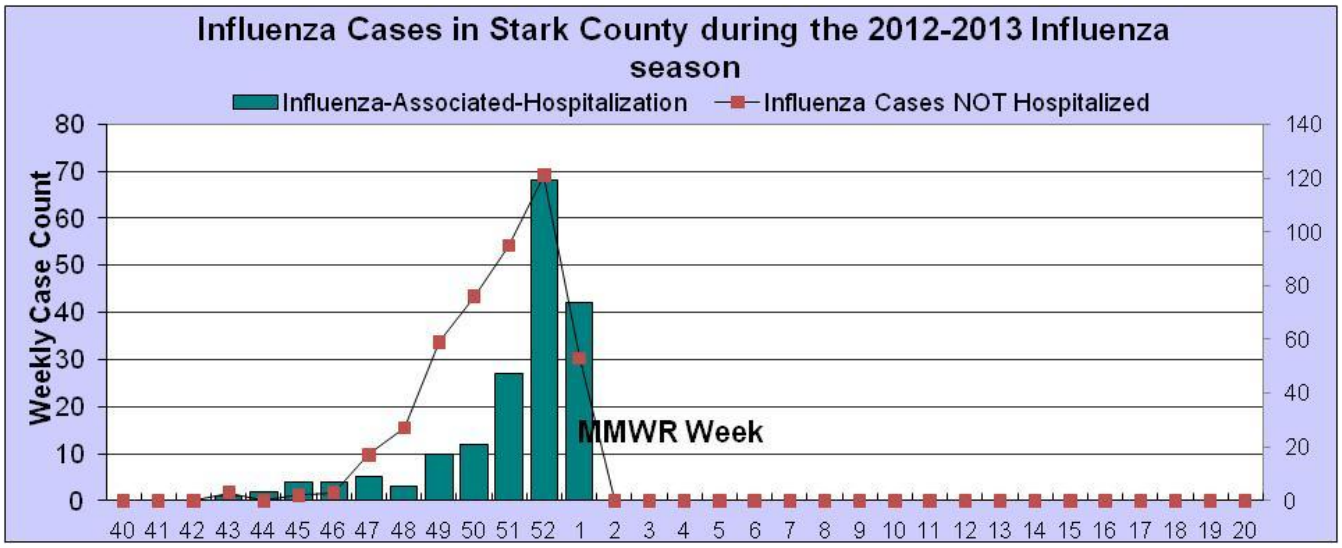
During week 52, (Dec 23-29, 2012) residents of Stark County were strongly affected by the influenza virus. Nearly all surveillance indicators continued to show unseasonable and elevated levels of activity; hospitalizations more than doubled and non-hospitalized cases were at a record high. The state of Ohio level of influenza geographical activity remained at Widespread. National indicators for influenza surveillance indicated continued spread and high intensity throughout the United States.

Information regarding all local surveillance indicators are detailed below:

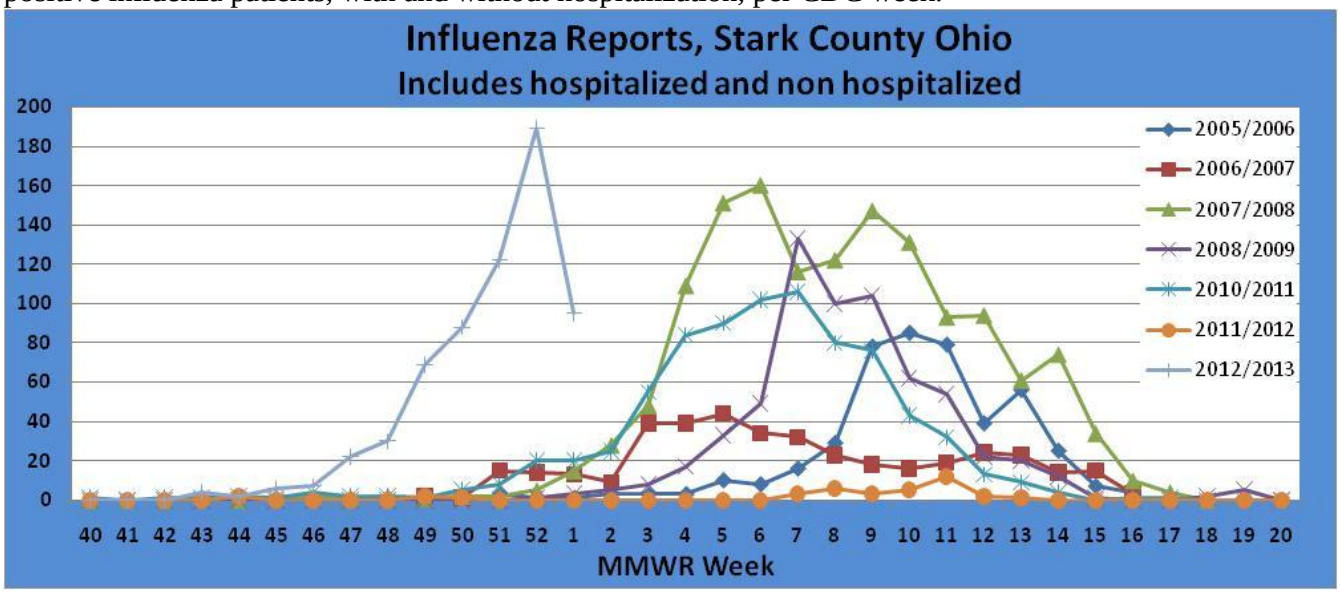
- **Sixty-nine Hospitalizations and one hundred twenty-one non-hospitalized** cases of influenza were reported in Stark County residents during week CDC Week 52. One hundred seventy eight (178) hospitalizations and 456 non-hospitalized cases have been reported this season. (Graph 1 and 2)
- Demographics for the 178 influenza-associated hospitalized cases during the 2012-2013 season in Stark County: age range 2 weeks–> 90 years, median 73 years and 90% of cases with race information are reported as Caucasian. In contrast, non hospitalized cases have a median age of 24 years.
- During CDC Week 52, the percentage of influenza that was Type A in comparison with type B continued to increase and is now at a seasonable 78%. However, the overall number of influenza type B hospitalizations continued to increase, accounting for an unprecedented 15 of week 52's hospitalizations.(See new temporary Graph 3 for type and hospitalization status) The CDC has antigenically characterized 413 influenza viruses since Oct 1, 2012: 17 (4%) 2009 H1N1, 281 (68%) influenza A (H3N2) viruses, and 115 (28%) influenza B viruses. Among the influenza B viruses 79 (69%) are from the Yamagata Lineage which is a part of this season's vaccine and 36 (31%) are Victoria Lineage.
- Week 52 National indicators of outpatient activity of influenza-like-illness (ILI), as reported by Sentinel Providers was 5.6%, well above the baseline of 2.2%. Stark County Provider reports are not available for week 52. (Graph 4)
- Emergency Departments (ED) and Stat Care Facilities in our surveillance network, reported an average of nearly 1000 visits per day by Stark County residents. Of these**, 49%** had symptoms classified as either Constitutional or Respiratory (C & R) Syndrome. This was the eighth consecutive week of increases in the C & R Syndrome Classifier. Visits specifically for symptoms consistent with Influenza-Like-Illness (ILI) + Fever syndrome accounted for **9.12%** of all patient visits. Both of these are well **above** expected levels. (Graph 5)
- Over-The-Counter (OTC) sales of Cough and Cold Products and Thermometers exceeded historical averages. Cough and Cold products sales **increased for the 5th week** while sales of Thermometers decreased after 6 previous weeks of increased sales. (Graph 6)
- Due to the school holidays, school reporting is incomplete.
- During week 52, the State of Ohio geographic level of influenza activity remained at Widespread activity. Nationally, Widespread geographic activity was reported by 41 states, Regional activity by 7 states, Local activity by03 states and Sporadic activity was reported in Hawaii. (See Map)
- During CDC Week 52, National Pneumonia and Influenza (P & I) Mortality Surveillance of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I, increased to 7.0%. This is below the P & I epidemic threshold, currently at 7.1%.
- Nationally, **two** influenza-associated pediatric deaths were reported to CDC during week 52 and were associated with influenza B viruses. One death occurred during week 48 (week ending December 1) and one death occurred during week 52 (week ending December 29). This brings the total number of influenza-associated pediatric deaths reported during the 2012-2013 season to 18, none from Ohio.

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

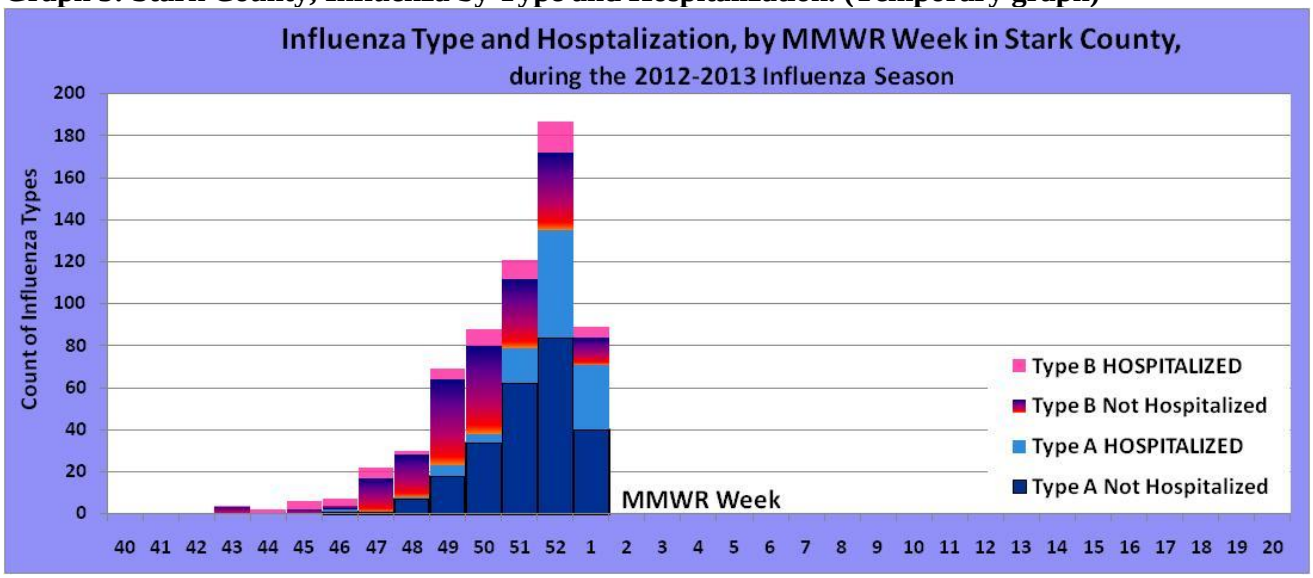
Graph 1: Influenza Cases reported to Local Health Departments Note, Influenza is only reportable if associated with a hospitalization; therefore, this only represents a small number of actual influenza cases in Stark County.



Graph 2: Stark County Influenza Historical Count. The graph depicts the number of laboratory identified positive influenza patients, with and without hospitalization, per CDC week.

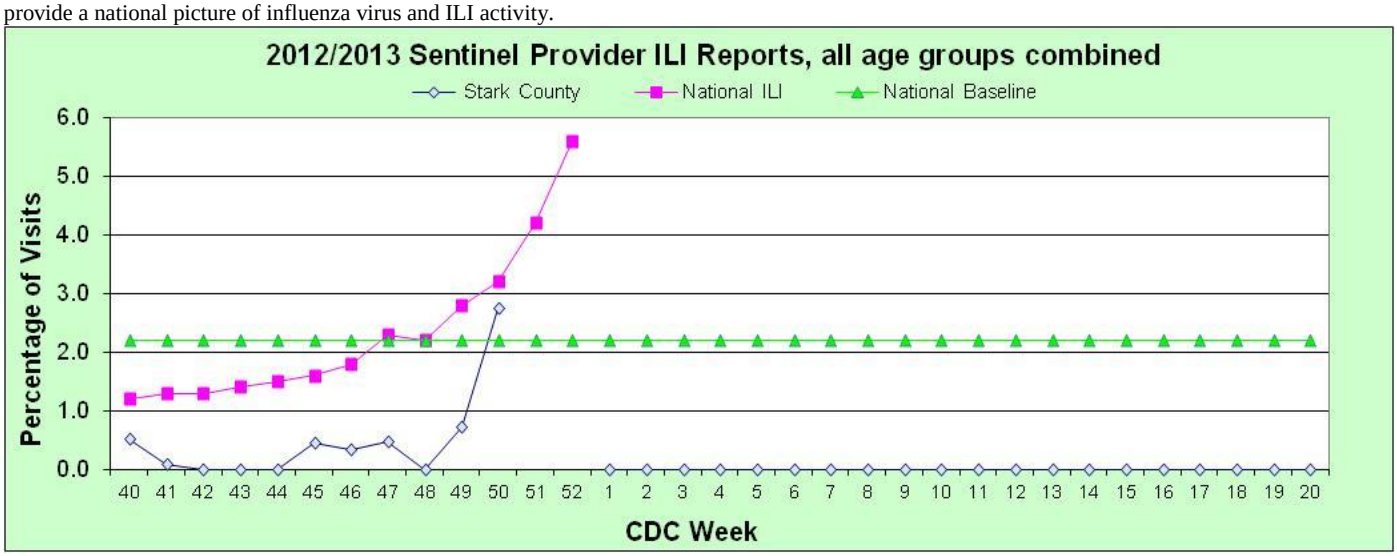


Graph 3: Stark County, Influenza by Type and Hospitalization. (Temporary graph)



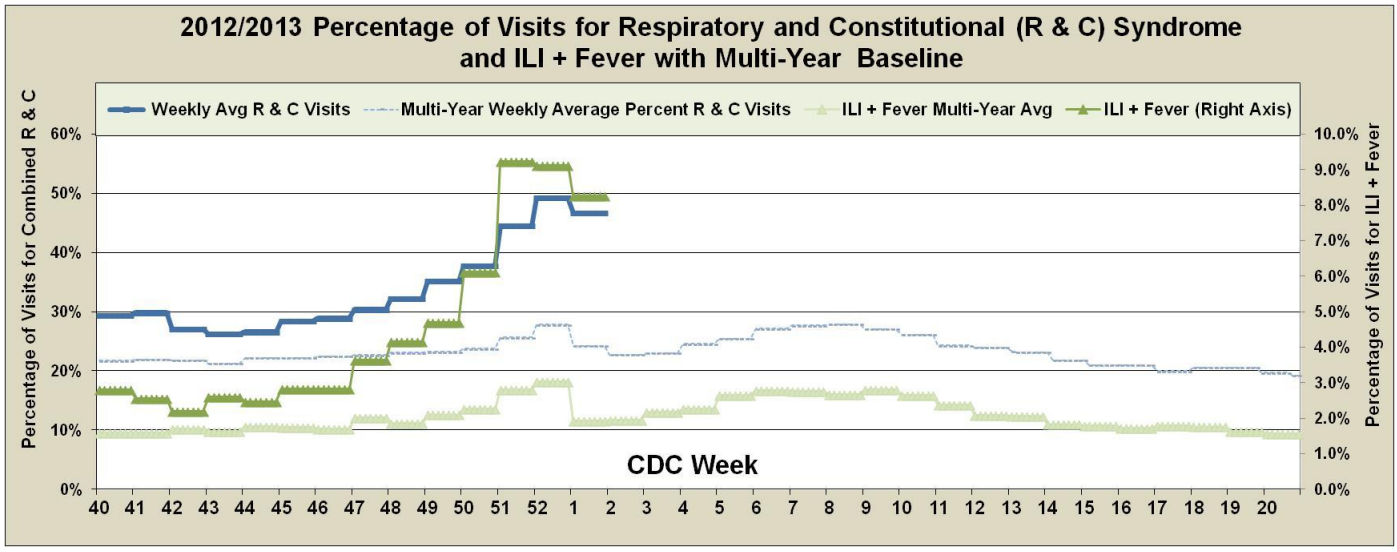
Graph 4: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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.



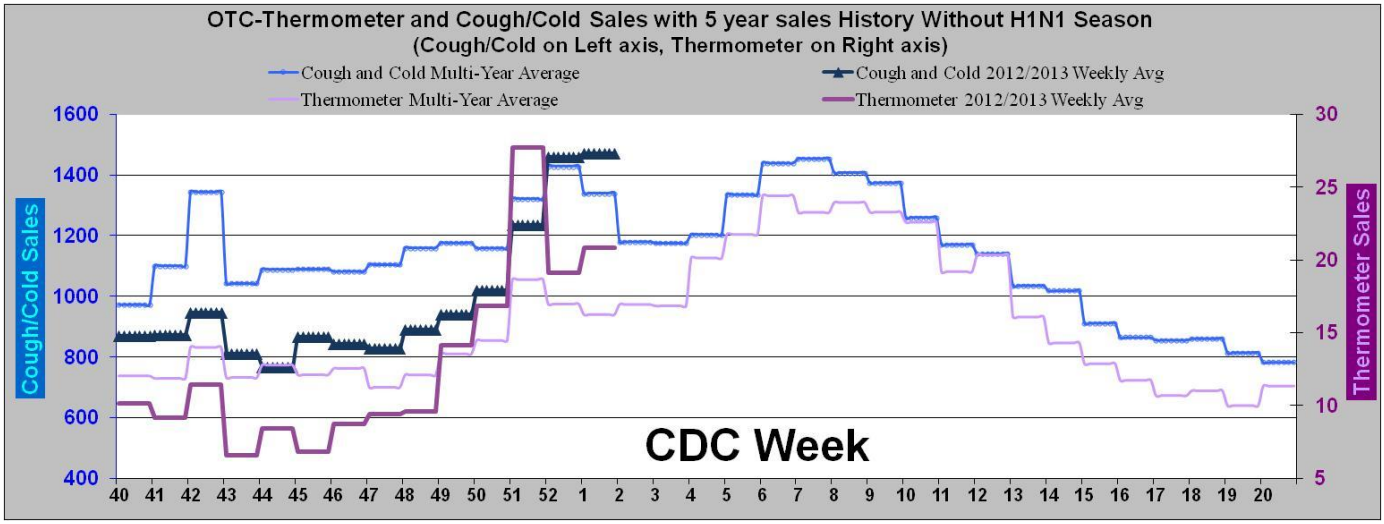
Graph 5: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

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



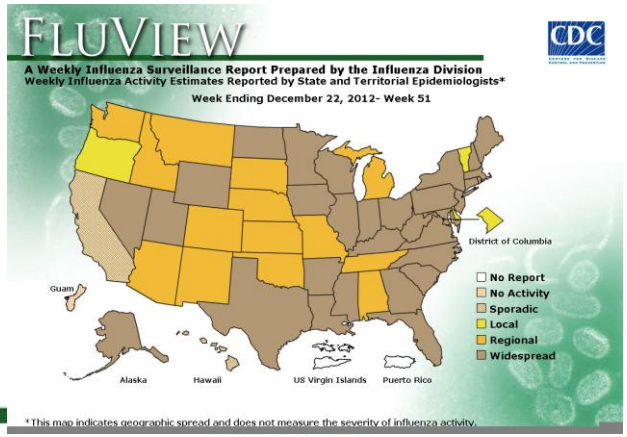
Graph65: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

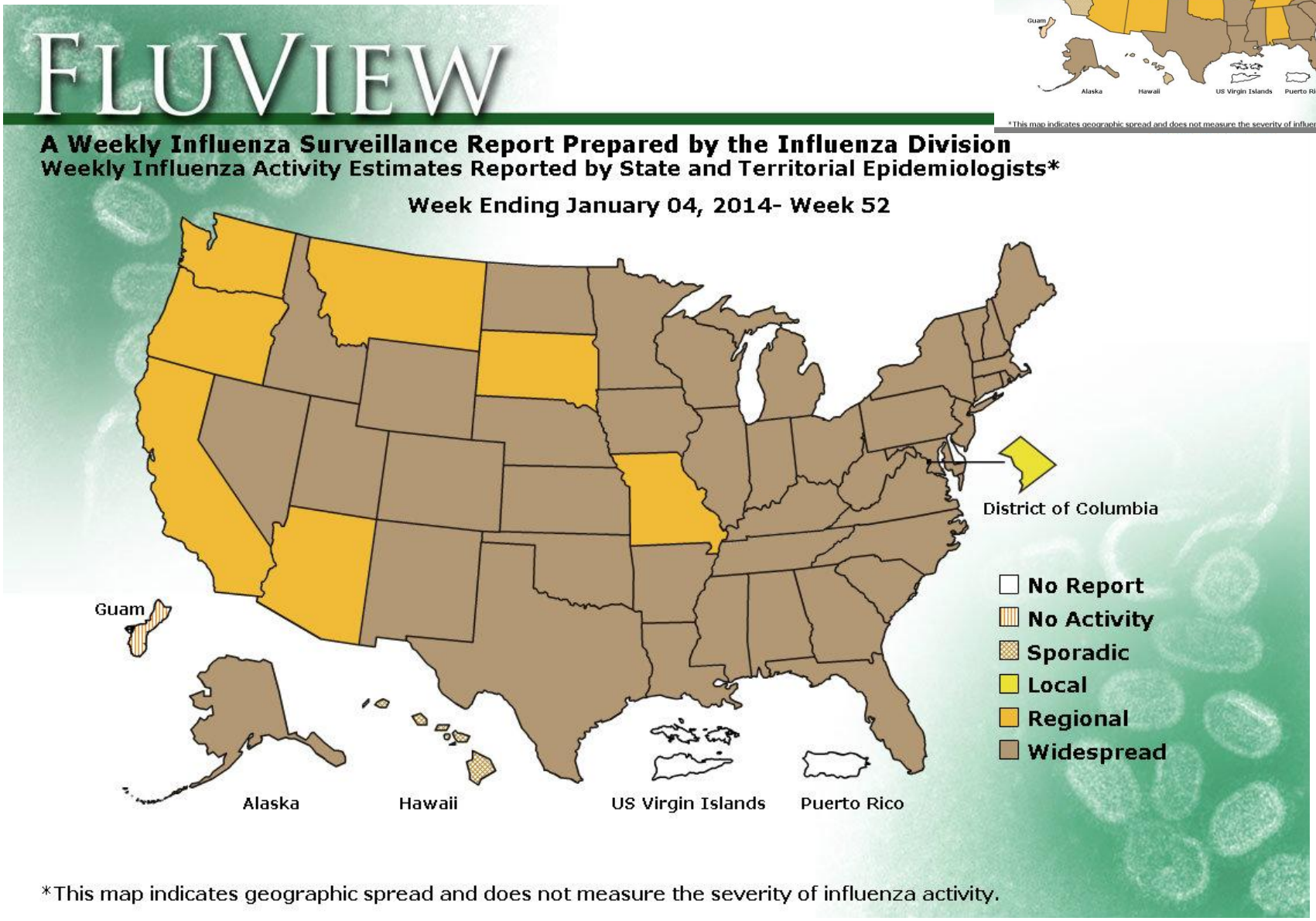
Source: RODS Real time Outbreak Disease Surveillance, Retail pharmaceutical sales.



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.