



STARK COUNTY INFLUENZA SNAPSHOT, WEEK 02

Week ending January 15, 2011. With updates through 01/21/2011.

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

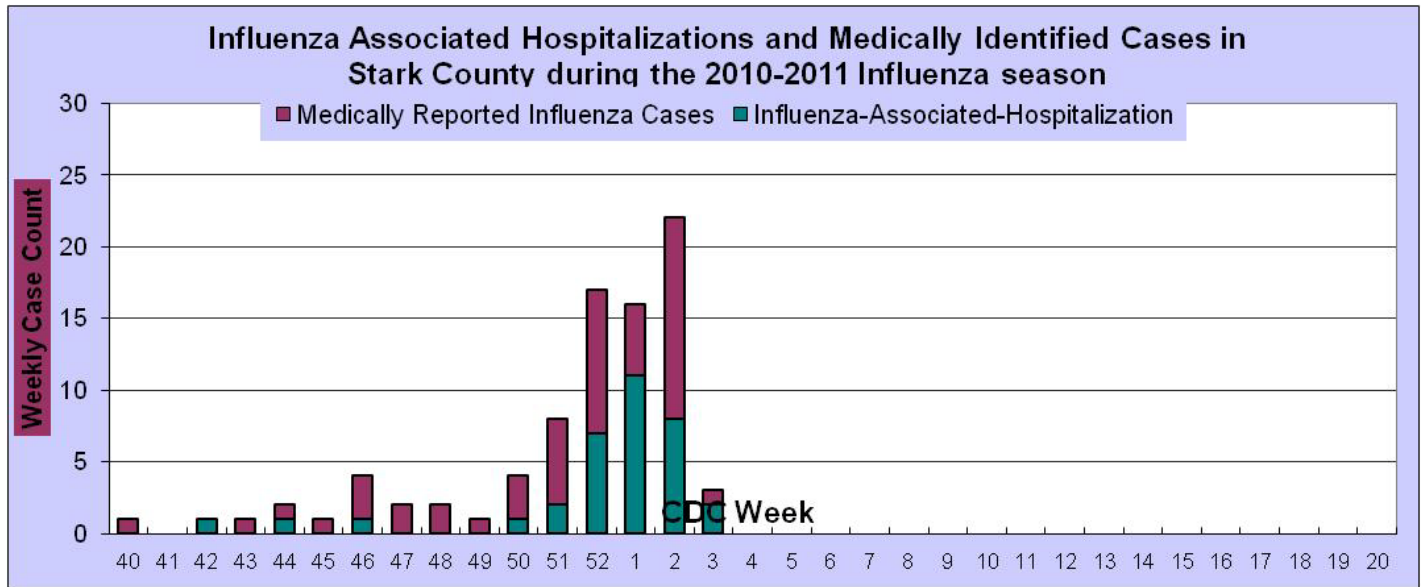
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During week 02, (January 9, 2010 – January 15, 2011) seasonal patterns of influenza illness continued. Additionally, concerns regarding hospitalized pregnant patients and a large number of false negative rapid influenza test results were noted.

- Week 2 saw a slight **decrease** in the number of influenza-associated hospitalizations and an **increase** in medically/laboratory reported cases (herein after referred to as lab reports). Eight hospitalizations and 14 lab reports were received in Stark County. (Graph 1)
- Of note during week 2, two of the hospitalizations were confirmed as pregnant women with influenza A.
- Additionally, during week 2 a trend in Negative influenza rapid (EIA) tests with Positive viral cultures was observed. At least 6 hospitalizations in 2011 were rapid test negative for influenza and viral culture positive. This further supports the following CDC statement: ‘(Rapid tests) have limited sensitivity to detect influenza virus infection and negative test results should be interpreted with caution given the potential for false negative results.’ See the following website for additional CDC comments regarding lab testing and interpretation: http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm.
- Demographics for influenza-associated hospitalized cases in Stark County: the age range is 4 months to 90+ years with a **median of 52 years** and 15% African American.
- Demographics for lab reported influenza cases in Stark County: the age range is 2 years to 76 years with a **median of 31.5 years** and 22% self- identified as African American.
- Stark County has confirmation of hospitalized patients with both Influenza A and B, and at least one was sub-typed as Influenza A (H3). Ohio has further confirmation of circulation of influenza A (H1).
- CDC has evidence of the following circulating strains in the United States: 2009 influenza A (H1N1), influenza A (H3N2), influenza B viruses (Yamagata, Victoria) since October 1, 2010. All influenza A’s were represented in the 2010-11 influenza vaccine, however one of the two lineages of influenza B, the Yamagata lineage, is **not a component** of the 2010-2011 influenza vaccine.
- With only two Stark County Sentinel Providers reporting during week 2, a modest decrease in the percentage of patient visits attributed to ILI was seen. The National level of ILI visits **increased above** the baseline level of 2.5%, with 2.9% of visits for ILI during CDC Wk 2. (Graph 2)
- The total number of patient visit, by Stark County residents, to emergency departments followed typical seasonal patterns by showing a **decrease**. The current average is 489 per week. (Graph 4)
- The percentage of visits to emergency departments in Stark County displaying chief complaint symptoms consistent with Constitutional and Respiratory (C & R) syndromes **decreased** 4% to 21.4%. (Graph 3)
- The percentage of visits to emergency departments in Stark County displaying chief complaint symptoms consistent with the syndrome classifier, fever + ILI posted its third week of gains. Fever+ILI remains **above** the expected level of 1.72% at 1.88%. (Graph 3)
- Over-the-counter sales of Cough/Cold Products continued to follow post holiday trends and **decreased** in week 2. Thermometers sales remained relatively constant and well below expected levels. (Graph 5)
- School absenteeism fell slightly to 3.7%, with 55 schools reporting. Note, most schools averaged only 3 days of attendance during week 2 due to weather and non-weather related closures. (Graph 6)
- The state of Ohio level of influenza activity **remains** at **Regional**. National geographic indicators of influenza continue to indicate increases in geographical spread, particularly in the eastern and southern states. (See National map)
- Ten influenza-associated pediatric deaths occurring during the 2010-2011 season have been reported to the CDC (None from Ohio); five deaths were associated with influenza A (H3) virus infection, three deaths were associated with influenza B virus infection, and two were associated with an influenza A virus for which the subtype was not determined
- National Pneumonia and Influenza (P & I) Mortality Surveillance **increased to 7.5%** of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I. This percentage is **below** the epidemic threshold of 7.8% for week 02.

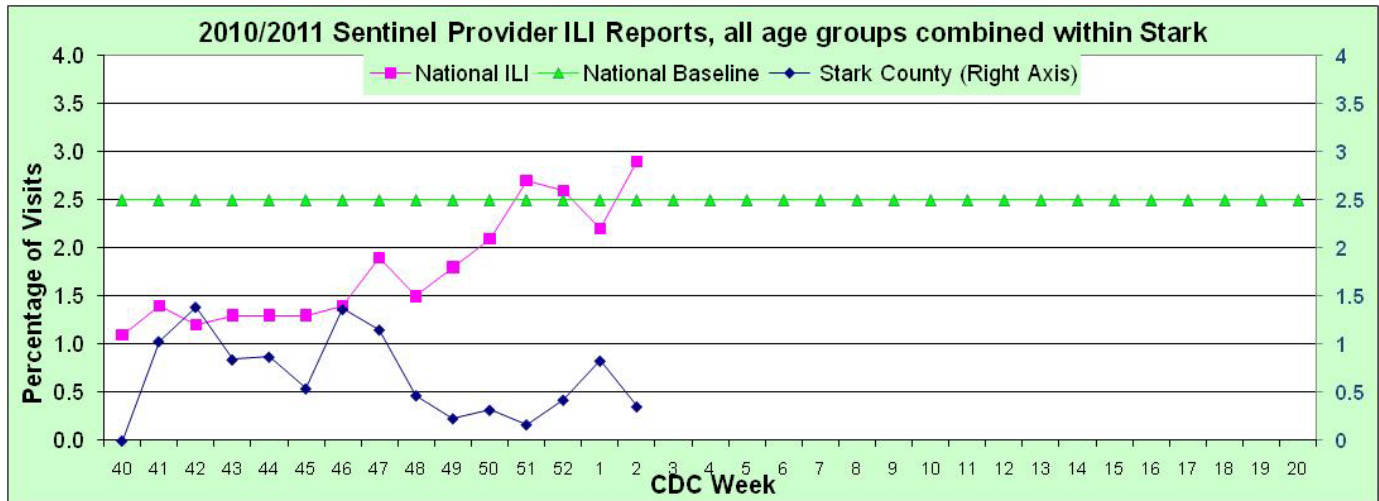
For questions, or to receive this report weekly by email, send requests to either chenning@cantonhealth.org or schanzk@starkhealth.org.

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.



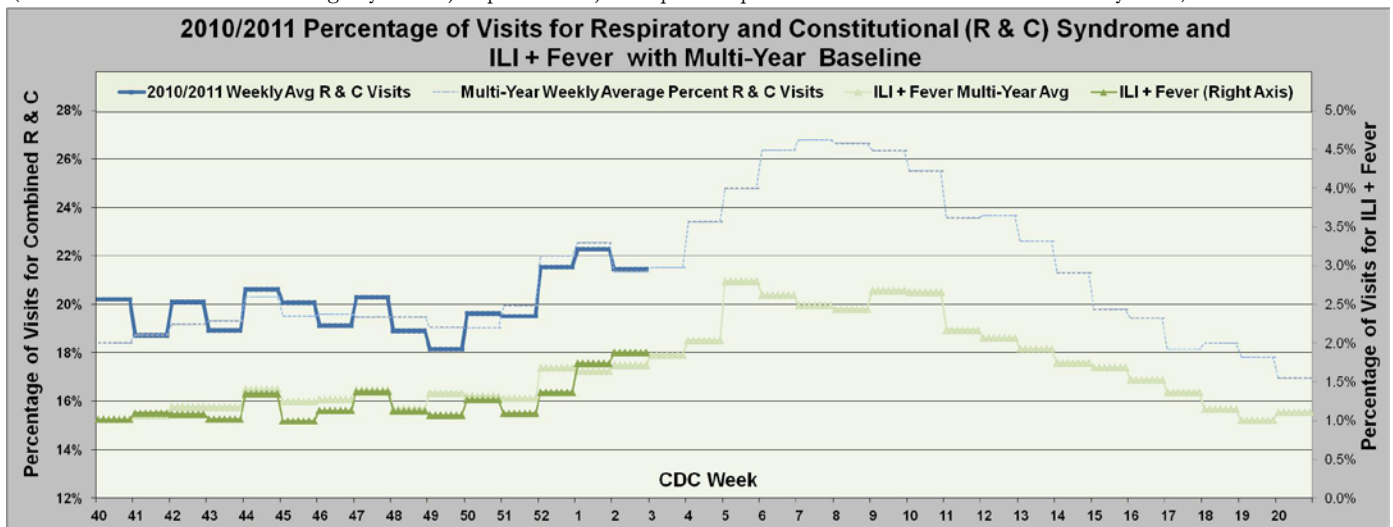
Graph 2: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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.



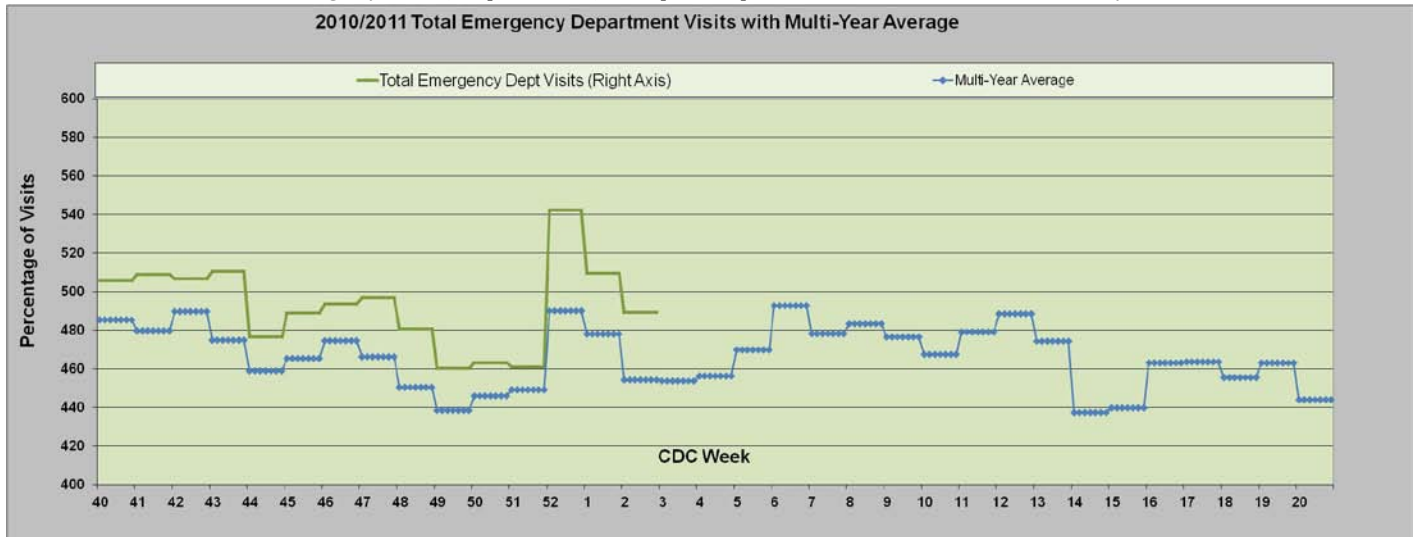
Graph 3: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

(Source Health Monitoring Systems, EpiCenter, hospital patient visit surveillance system)



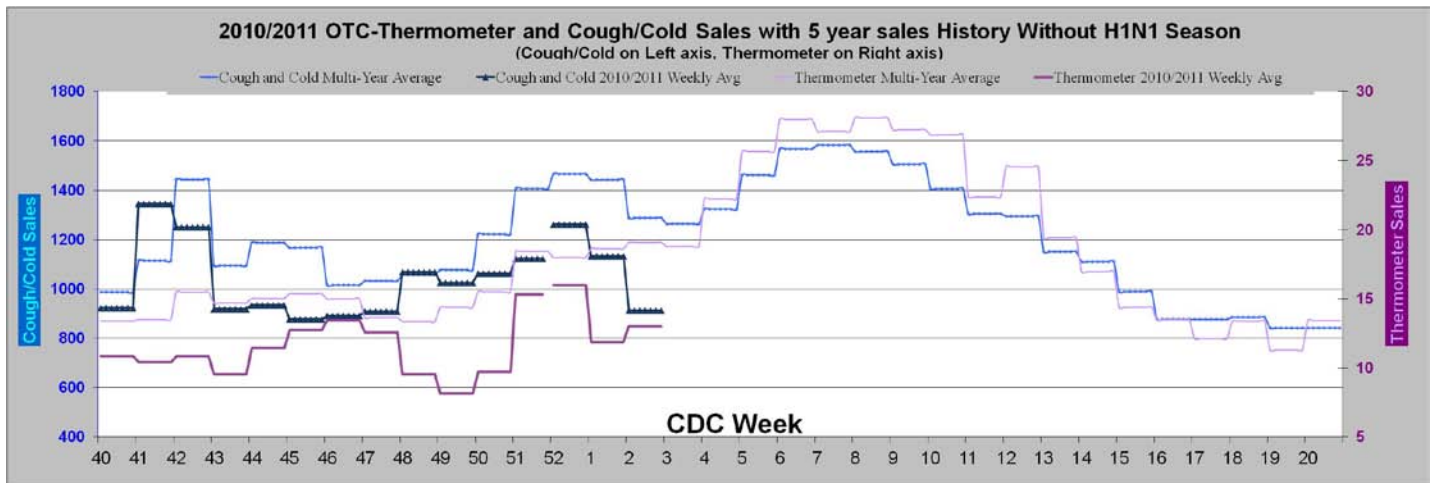
Graph 4: Total Emergency Department Visits

(Source Health Monitoring Systems, EpiCenter, hospital patient visit surveillance system)

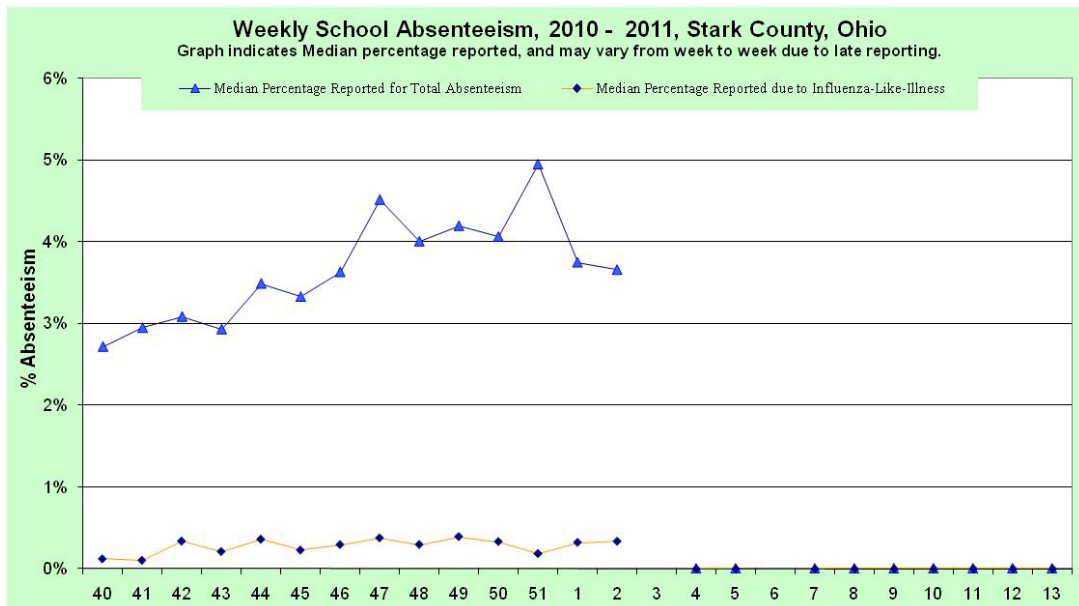


Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

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



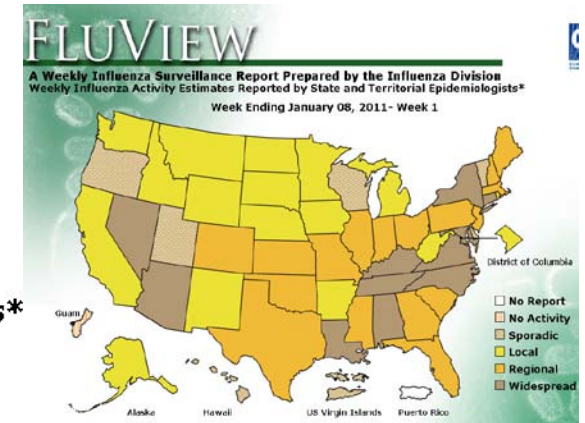
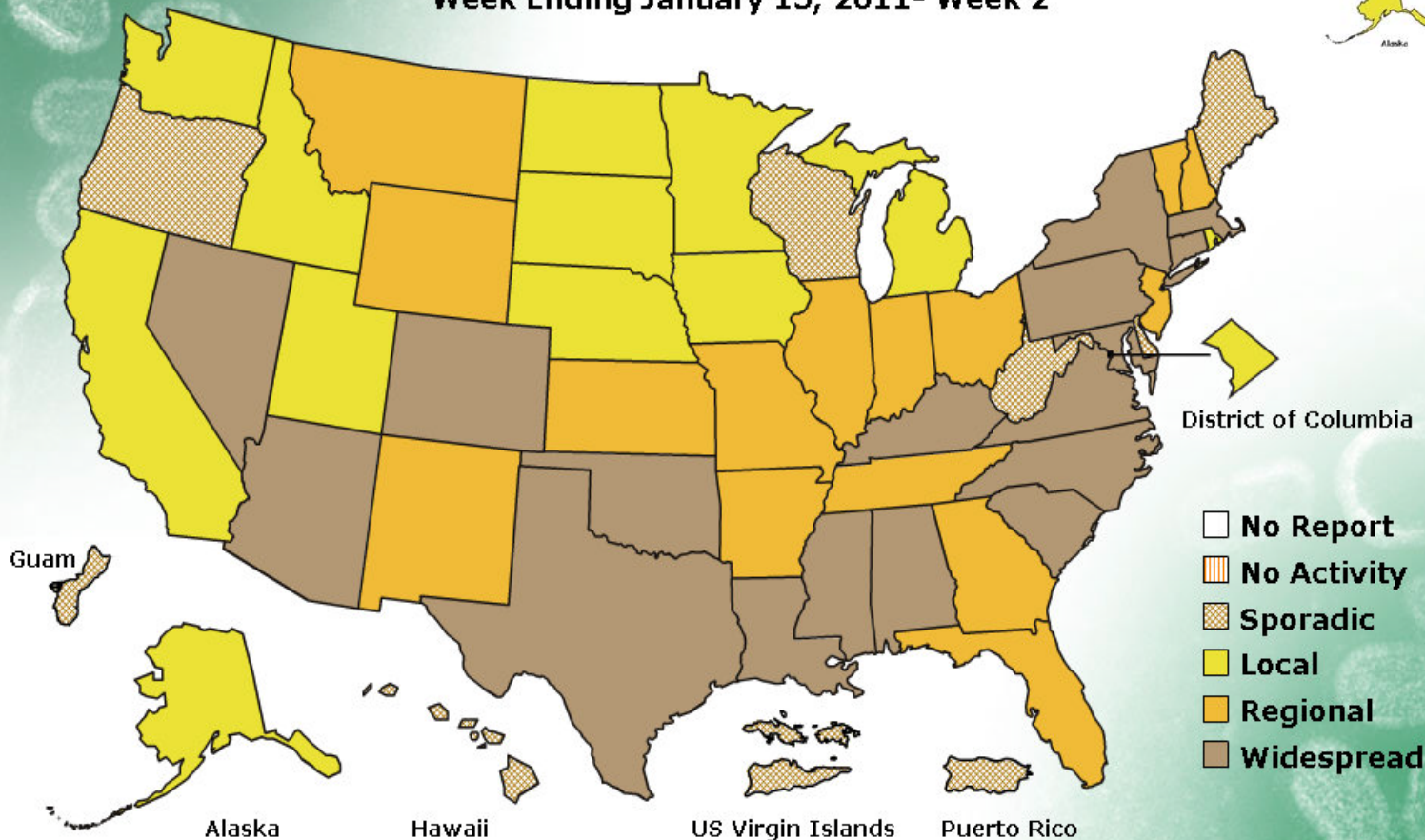
Graph 6: School Absenteeism. School systems from throughout Stark County report total absenteeism and absenteeism due to influenza-like-illness on a weekly basis.



Map: Weekly Geographic Influenza Activity Estimates Reported by State and Territorial Epidemiologists (Inset is previous week) (Source: <http://www.cdc.gov/flu/weekly>)

FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*
Week Ending January 15, 2011- Week 2



*This map indicates geographic spread and does not measure the severity of influenza activity.

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 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 coming soon the fever + ILI symptoms classifier are analyzed for influenza surveillance.

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.

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 4 in Stark County for the 2010-2011 season.

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.

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.

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.