



STARK COUNTY INFLUENZA SNAPSHOT, WEEK 51

Week ending December 25, 2010. With updates through 01/03/2011.

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

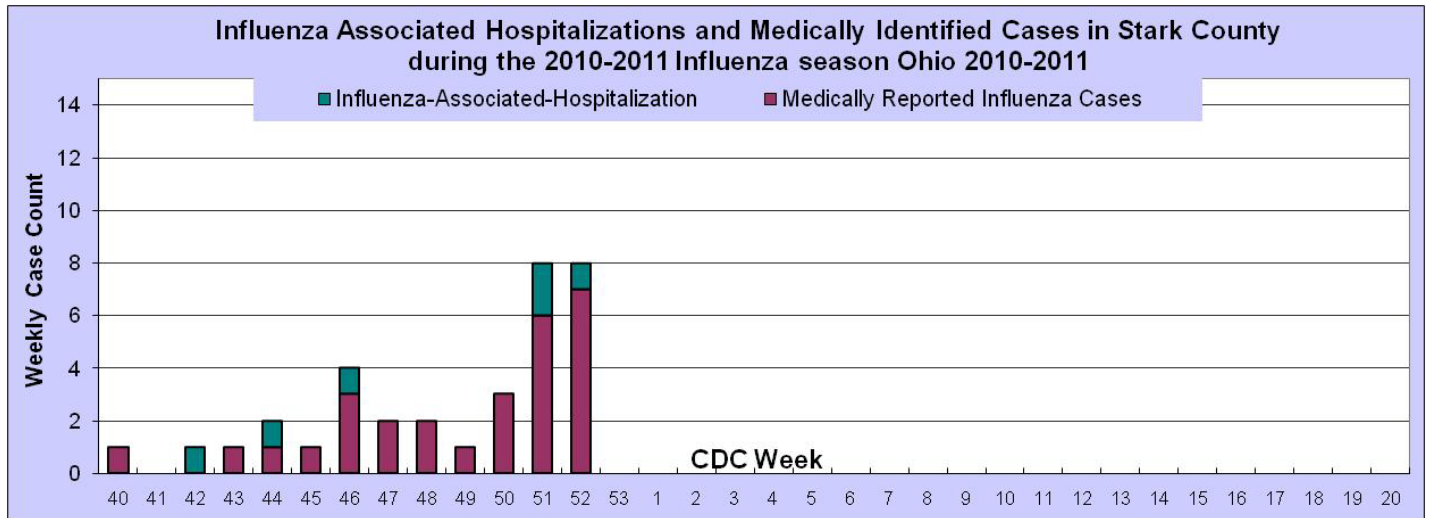
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During week 51, (December 19, 2010 – December 25, 2010) numerous indicators of influenza activity revealed increases within Stark County and the Nation. Further, the increases show evidence of a continuing trend in elevated influenza activity.

- CDC Week 51 shows a rise in both medically/laboratory (herein after referred to as lab reports) reported cases of influenza and influenza-associated hospitalizations. Two hospitalizations and six lab reports were received in Stark County. The season-to-date total is six influenza-associated hospitalizations and twenty-eight lab reported cases of influenza. (Graph 1)
- Demographics for influenza-associated hospitalized cases in Stark County: the age range is 6 to 80 years with a **median of 52 years** and 33% African American.
- Demographics for lab reported influenza cases in Stark County: the age range is 2 years to 71 years with a **median of 31.5 years** and 26% self-identified as African American.
- Of the cases of influenza in Stark County reported with influenza type, all continue to be exclusively **type A**. Six of these were further sub typed as influenza A (H3). The State of Ohio also has confirmation of circulation of the influenza A (H1).
- The Centers for Disease Control and Prevention (CDC) has antigenically characterized 117 influenza viruses [13 2009 influenza A (H1N1) viruses, 54 influenza A (H3N2) viruses, and 50 influenza B viruses] collected by U.S. laboratories October 1, 2010. **All** antigenic characterizations were represented in the 2010-11 influenza vaccine.
- Stark County Sentinel Providers continue to report <0.25% of patient visits attributed to ILI. The National level of ILI visits **increased** to 2.7%, climbing **above** the baseline level of 2.5%. (Graph 2)
- The total number of patient visits, by Stark County residents, to emergency departments **remained steady** at an average of 461 hospital emergency room visits per day. However, a nearly **17% increase** in visits to area emergency departments was noted in week 52.
- The percentage of visits to emergency departments in Stark County displaying chief complaint symptoms consistent with Constitutional and Respiratory (C & R) syndromes remained constant at 19.5%, though as can be seen in the graph it **increased** 10% to 21.55% in week 52. The changes reflect expected seasonal trends for influenza surveillance. (Graph 3)
- The percentage of visits to emergency departments in Stark County displaying chief complaint symptoms consistent with the syndrome classifier, fever + ILI is 1.1%, remaining **below** the expected level of 1.29%. (Graph 3)
- Consistent **increases** in Over-the-counter sales of Cough/Cold Products and Thermometers have been observed in the past three weeks. (Note, December 25 was eliminated due to store closures). (Graph 4)
- School absenteeism, as reported by 19 schools in Stark County, increased to 4.5%. However due to the holidays and the few number of schools reporting or in session, this value could be artificially elevated. (Graph 5)
- The state of Ohio remains at **sporadic** geographic influenza activity. National geographic indicators of influenza continue to indicate increases in geographical spread. Widespread activity was reported by five states, Regional influenza activity was reported by thirteen states, Local influenza activity was reported by 9 states, and sporadic activity was reported by 23 states. (See National map)
- 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 **mirrors** the epidemic threshold of 7.5% for week 51 and is the first time this season to reach the epidemic baseline for P & I mortality.
- A third pediatric death associated with influenza was reported to the CDC this season. The infant was a resident of New York City and was confirmed with influenza A (H3)

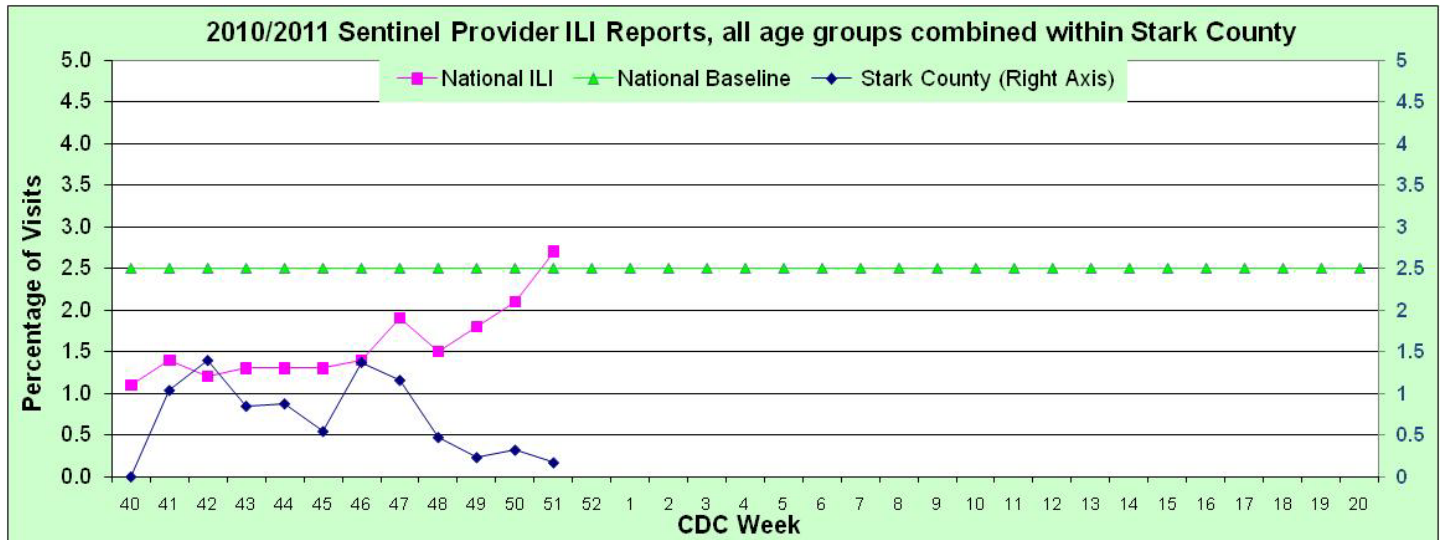
For questions, or to receive this report weekly by email, send requests to either chenning@cantonhealth.org or schankz@starkhealth.org.

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.



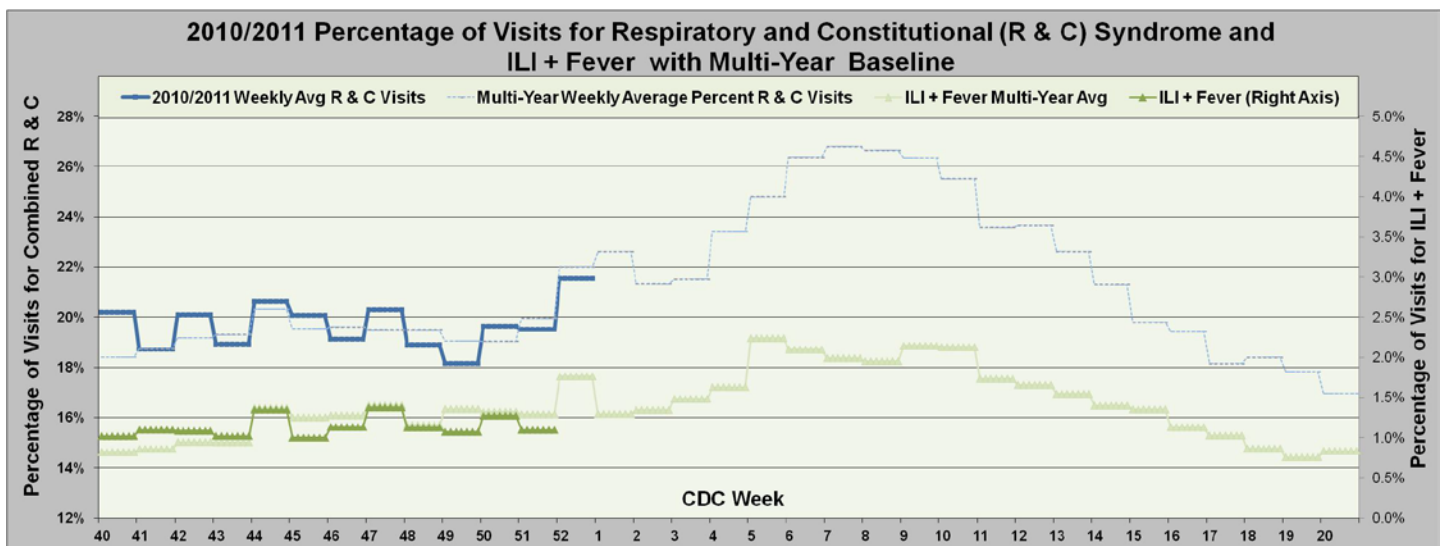
Graph 2: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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.



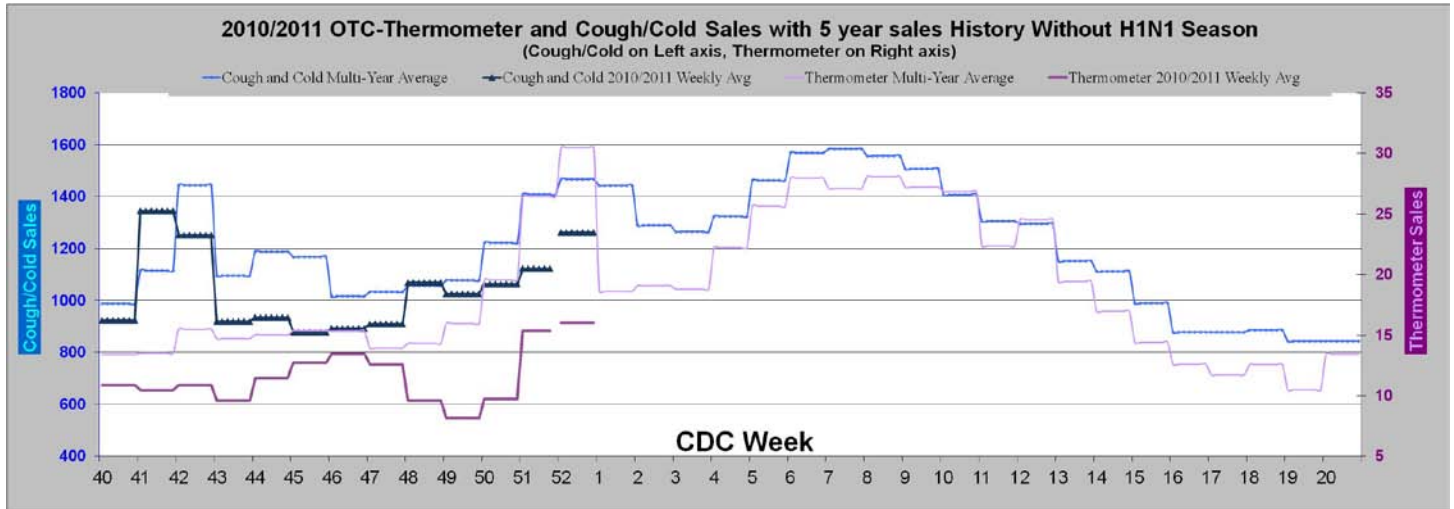
Graph 3: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

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

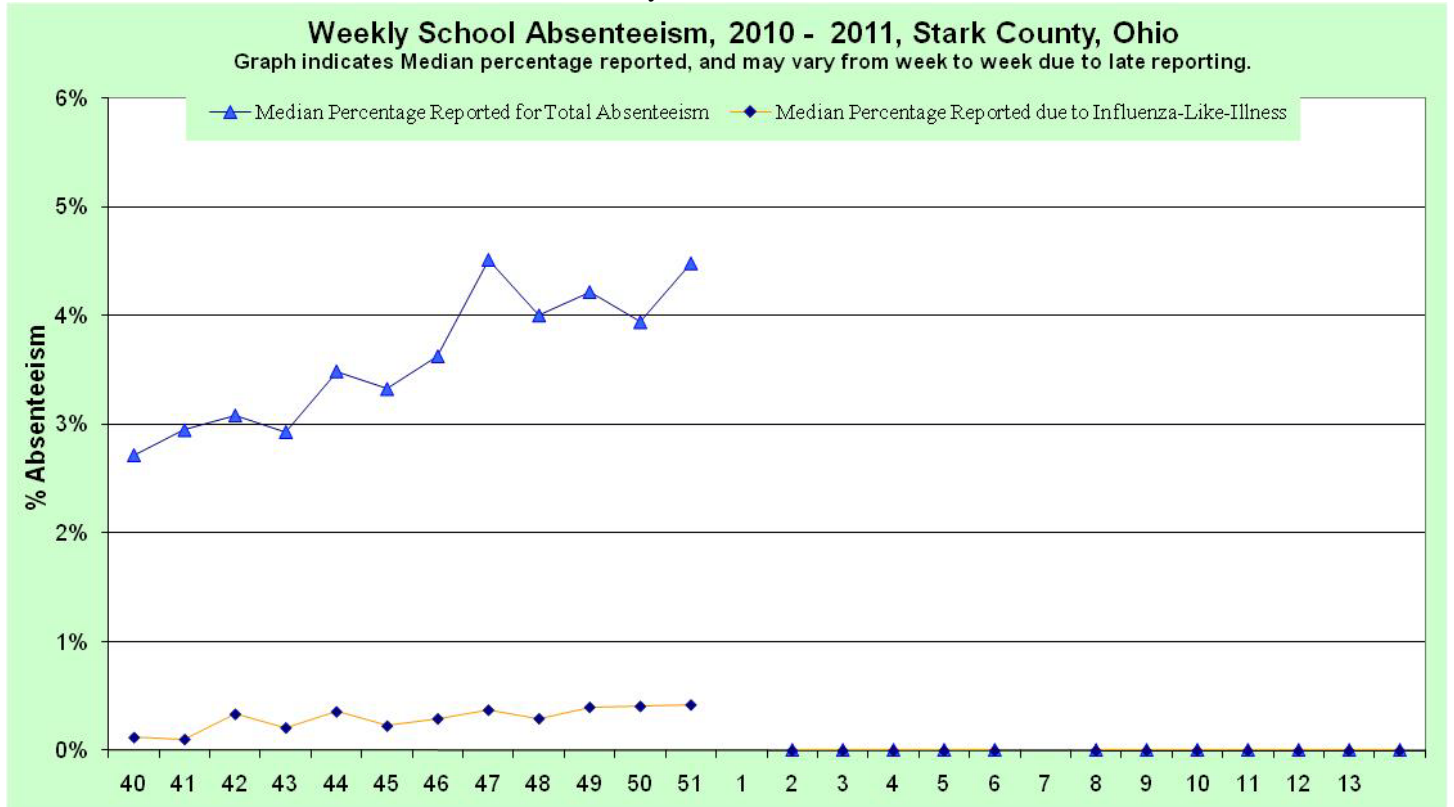


Graph 4: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

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



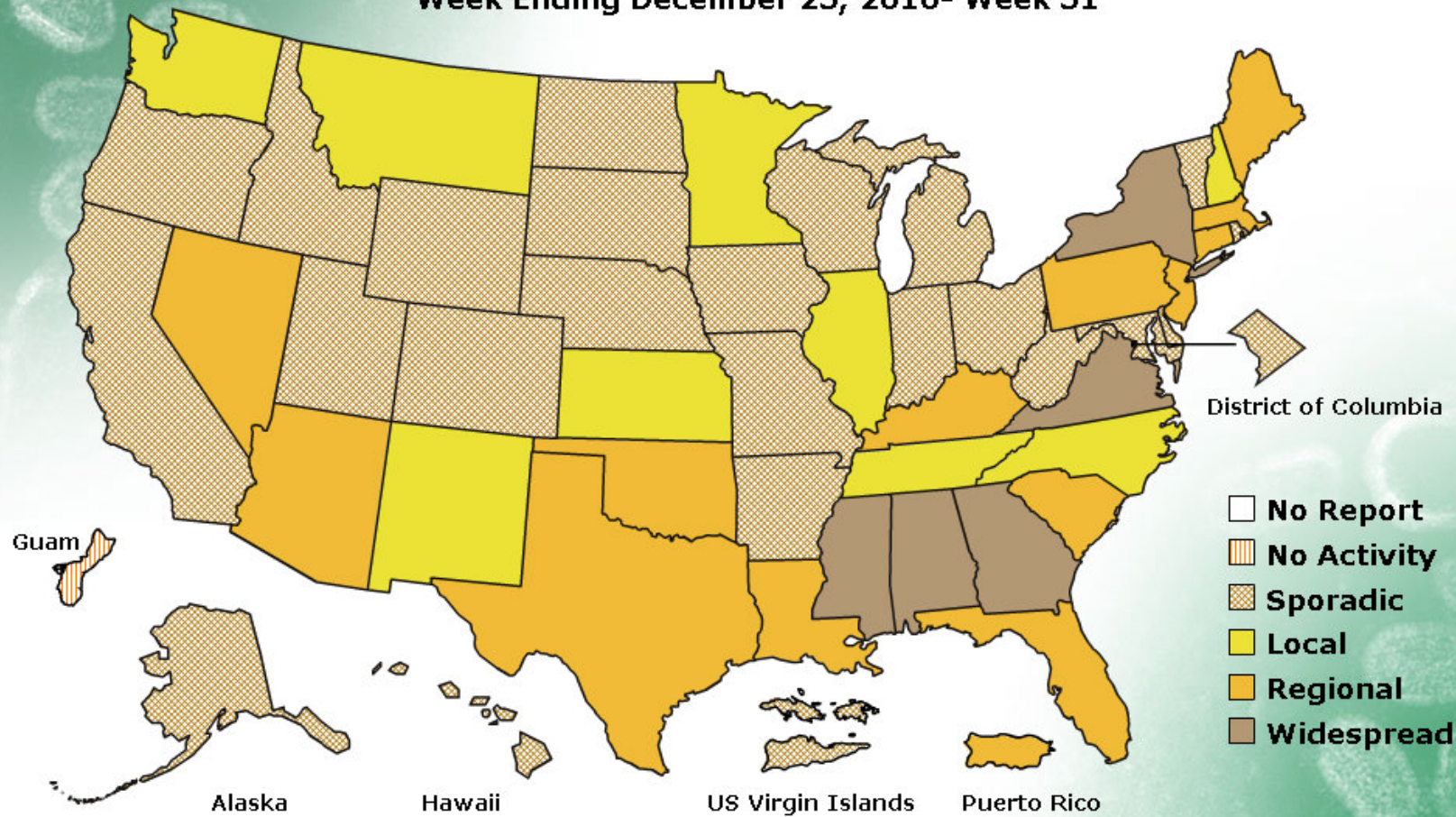
Graph 5: School Absenteeism. School systems from throughout Stark County report total absenteeism and absenteeism due to influenza-like-illness on a weekly basis.



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 December 25, 2010- Week 51



*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.