



STARK COUNTY INFLUENZA SNAPSHOT, WEEK 03

Week ending January 22, 2011. With updates through 01/31/2011.

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

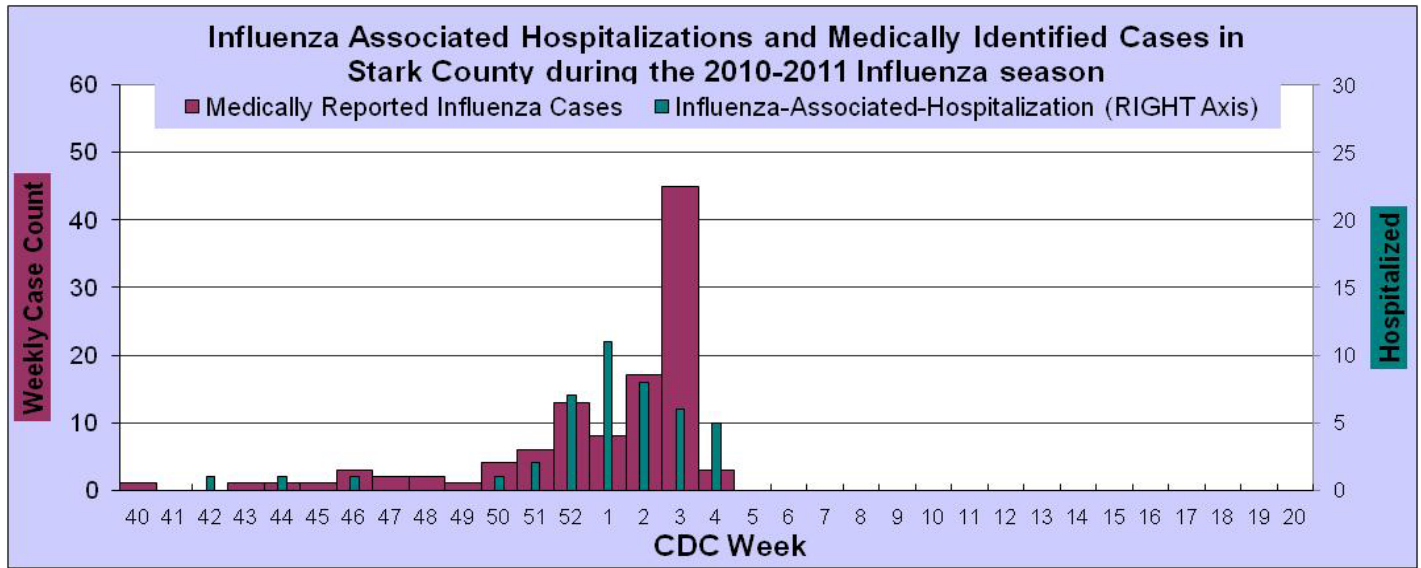
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During week 03, (January 16, 2010 – January 22, 2011) the state of Ohio increased its level of influenza activity to widespread. Locally, increases were noted in multiple influenza-like-illness syndromic surveillance tools and case report gathering.

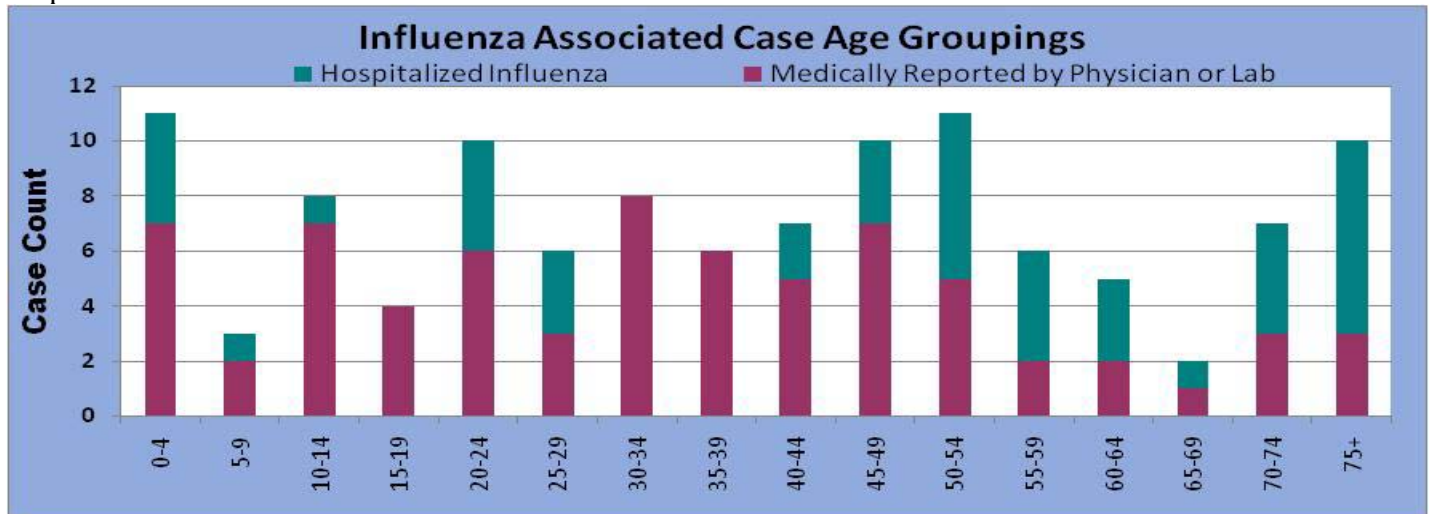
- Week 3 saw significant **increases** in medically/laboratory reported cases (herein after referred to as lab reports) and a slight **decrease** in the number of influenza-associated hospitalizations. Six hospitalizations and 39 lab reports were received in Stark County. (Graph 1)
- Demographics for influenza-associated hospitalized cases in Stark County: the age range is 4 months to 90+ years with a **median of 53 years** and 15% African American. (Graph 2)
- Demographics for lab reported influenza cases in Stark County: the age range is 3 months to 85 years with a **median of 33 years** and 19% self-identified as African American. (Graph 2)
- NEW: Graph 2 Age Groupings of Influenza Cases Reported to Local Health Departments. The graph shows the total number of influenza associated cases per age group. The two colors reflect the number hospitalized and not hospitalized. As can be seen on the graph, influenza has been well dispersed across all age groups, with the most affected age group 50-54 year olds, followed very closely by 0-4. Other conclusions may be interpreted from this graph; however, they are made without supporting data. For instance, the disparity seen between the numbers of medical reports versus hospitalizations in the oldest age group, may suggest that elderly are seeking treatment too late in their course of illness. This leads to a recommendation to advise the elderly not to wait when experiencing flu like symptoms. (Graph 2)
- Circulating strains of influenza confirmed in Ohio include influenza A (H3), influenza A (H1) and influenza B. CDC has evidence of the following circulating strains in the United States this season: 2009 influenza A (H1N1), influenza A (H3N2), influenza B viruses (Yamagata, Victoria). 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.
- Both local and national indicators of outpatient activity, as reported by Sentinel Providers, revealed **increases** in influenza-like-illness (ILI). The national level of ILI visits is 3.6%, well **above** the baseline level of 2.5%. (Graph 3)
- The total number of patient visits and the percentage of visits to emergency departments in Stark County displaying chief complaint symptoms consistent with Constitutional and Respiratory (C & R) syndromes, and fever + ILI **increased** and are **above baseline levels**. (Graph 4)
- Over-the-counter sales of Cough/Cold Products and Thermometers remained below baseline levels. However, thermometers sales **increased nearly 50%** in CDC week 4. (Graph 5)
- With 58 schools reporting, school absenteeism increased to 4.8%. For the first time this season, a notable increase of absenteeism was due to influenza-like-illness (ILI). ILI absenteeism doubled from the average for the season of less than 0.30% to a current level of 0.63%. (Graph 6)
- The state of Ohio level of influenza activity **increased to Widespread**. National geographic indicators of influenza continue to indicate increases in geographical spread, particularly in the entire southern region and all across the eastern seaboard states. (See National map)
- Thirteen influenza-associated pediatric deaths occurring during the 2010-2011 season have been reported to the CDC (None from Ohio); Seven of the 13 deaths reported were associated with influenza A (H3) virus infection, four 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 **remained steady at 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 7.9% for week 03.

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.

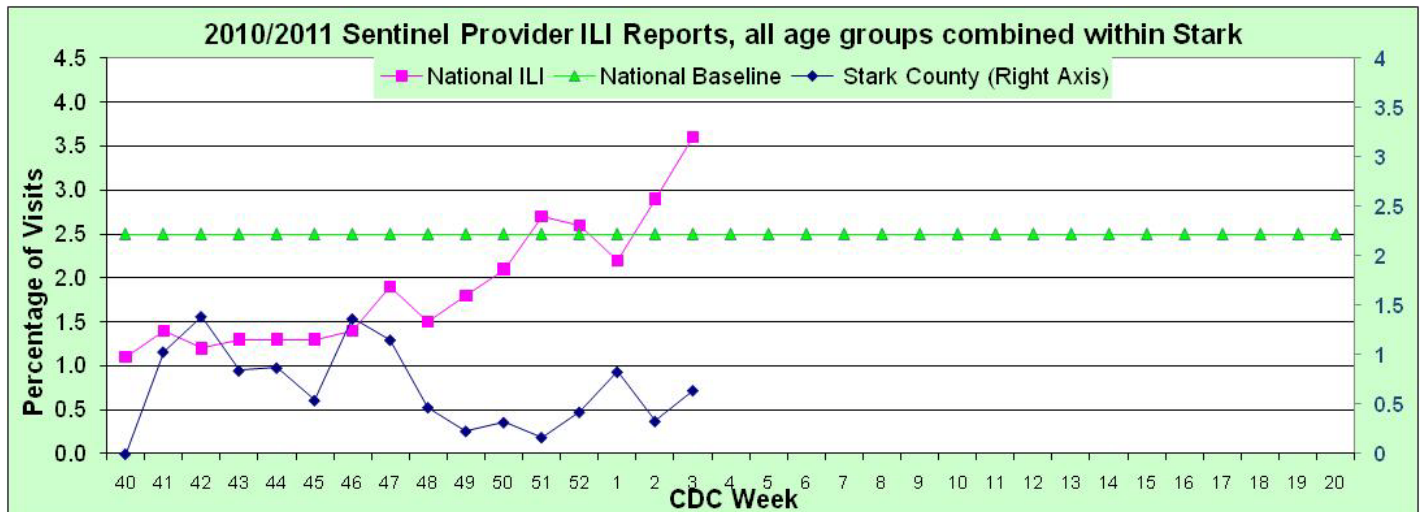


Graph 2: Age Groupings of Influenza Cases Reported to Local Health Departments. The graph shows the total number of influenza associated cases per age group. The two colors reflect the number hospitalized and not hospitalized.



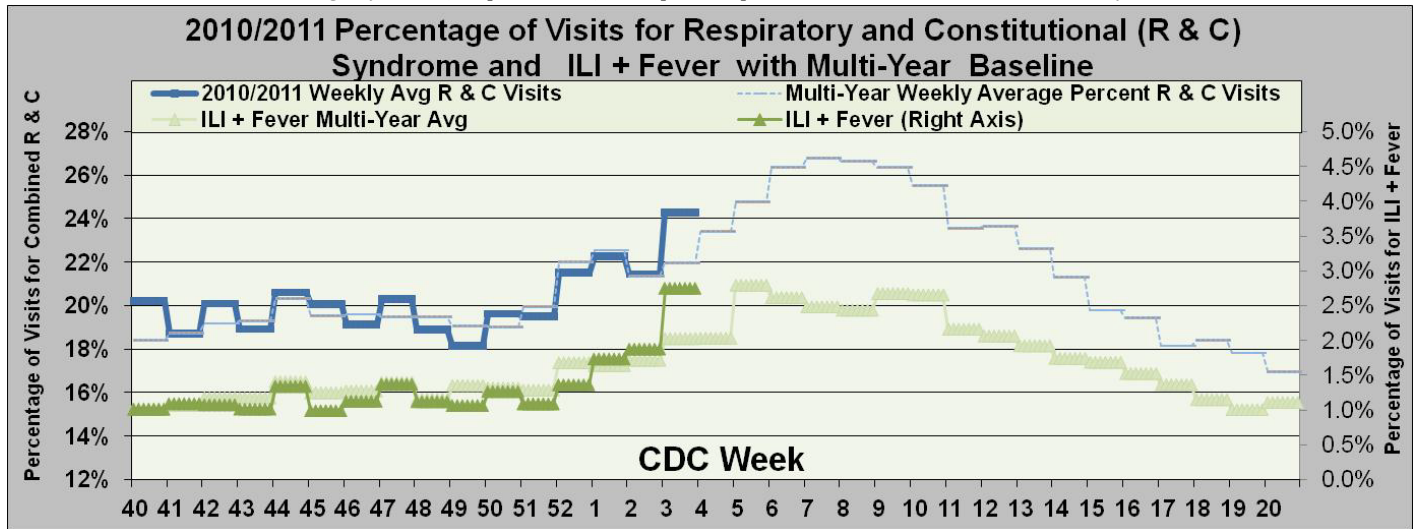
Graph 3: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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.



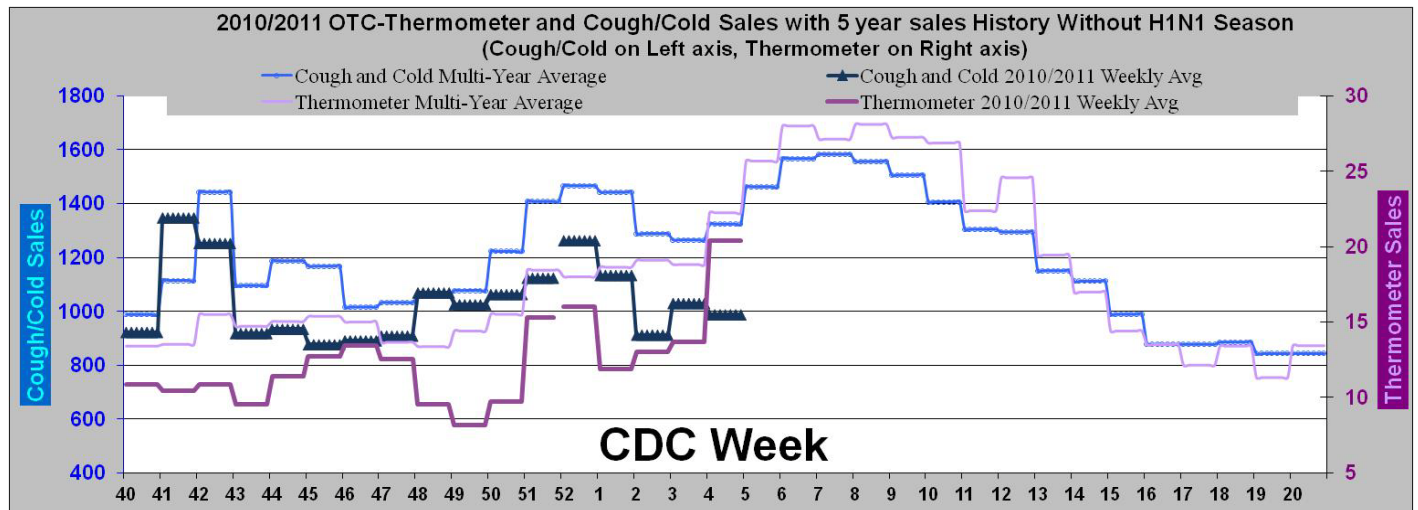
Graph 4: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

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

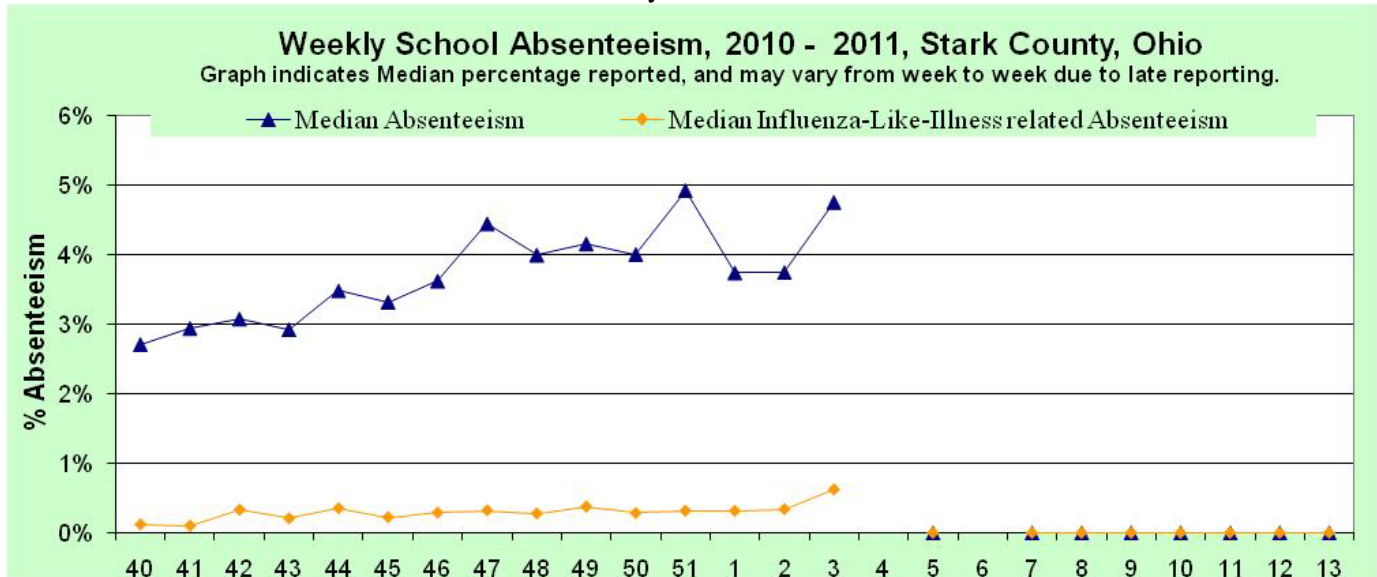


Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

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



Graph 7: School Absenteeism. School systems from throughout Stark County report total absenteeism and absenteeism due to influenza-like-illness on a weekly basis.

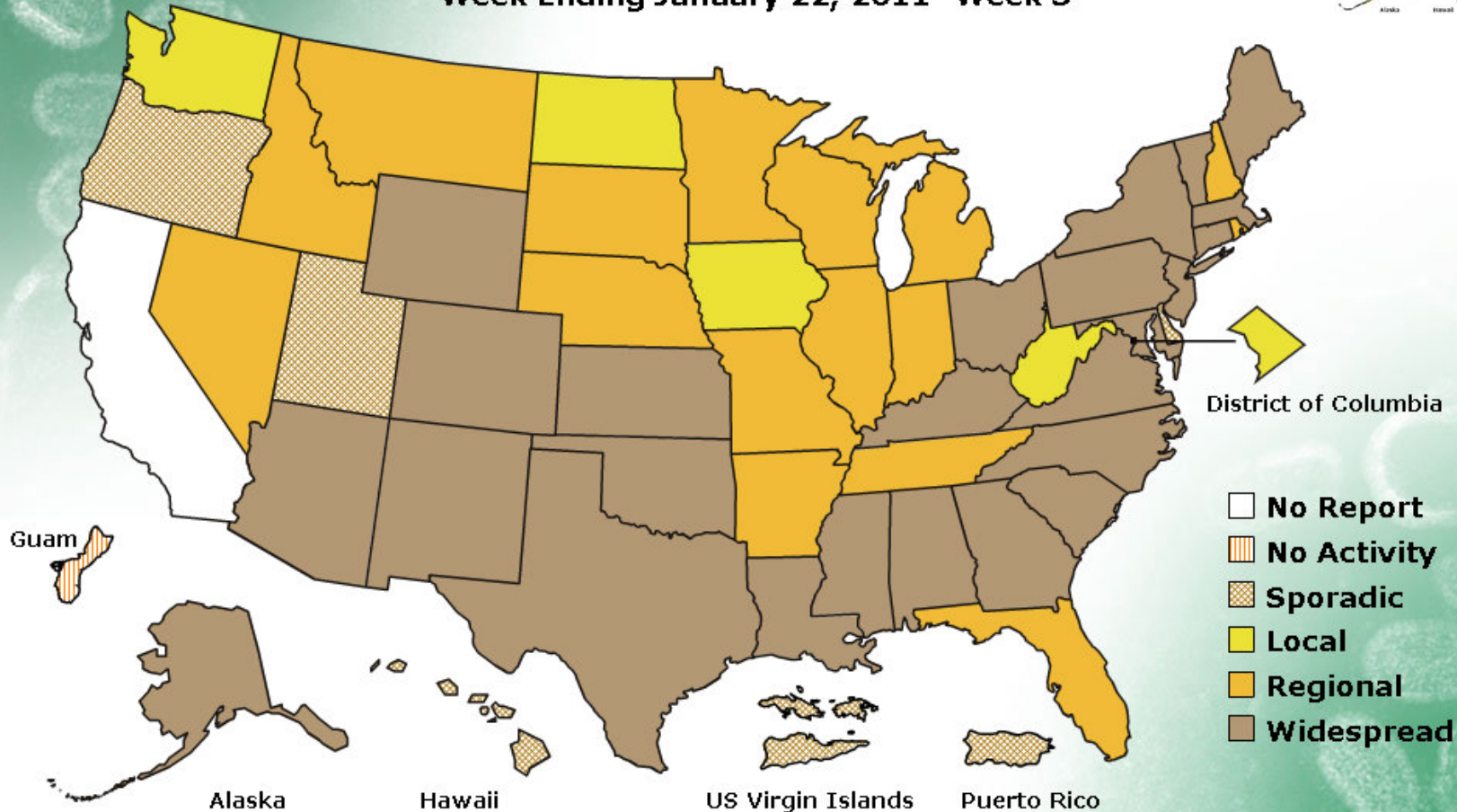


Map: Weekly Geographic Influenza Activity Estimates Reported by State and Territorial Epidemiologists (Inset is previous week) (Source: <http://www.cdc.gov/flu/weekly>)

FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending January 22, 2011- Week 3



*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.