



STARK COUNTY INFLUENZA SNAPSHOT, WEEK 44

Week ending November 6, 2010. With updates through 11/13/2010.

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

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

During week 44, (October 31 – November 5, 2010) local, state, and national influenza activity remained at low levels.

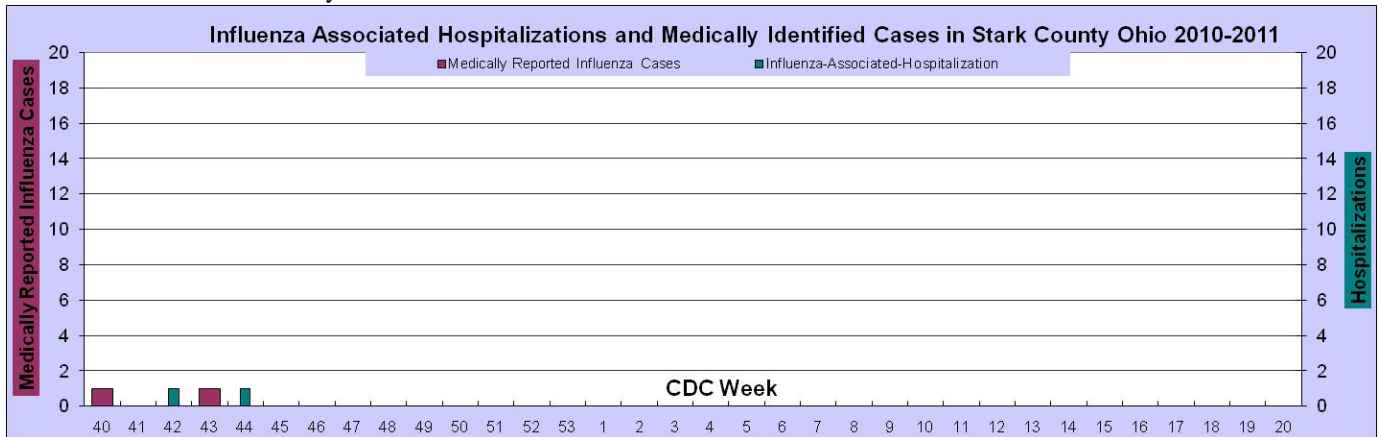
- During CDC Week 44, one laboratory report of influenza and **no Influenza-associated hospitalizations** were reported to Public Health in Stark County. The season-to-date total is two influenza-associated hospitalizations and two laboratory reported cases of influenza. (Graph 1)
- Of the known cases of influenza in Stark County, **all have been type A**. One was sub typed as an Influenza A (H3). The Centers for Disease Control and Prevention (CDC) reports 55% of type A influenza as H3. Additional antigenic characterization of a select number of the CDC H3 isolates reveals that they are A/Perth/16/2009-like, the influenza A (H3N2) component of the 2010-11 influenza vaccine.
- The CDC further reports, that Influenza A (H3N2) and 2009 influenza A (H1N1) continue to show high levels of resistance to the adamantanes (amantadine and rimantadine).
- Demographics for known influenza cases in Stark County: The **age range is 2 to 31 years with 75% African American**. (Demographic information is limited due to the low number of reports)
- Three Stark County Sentinel Providers had a combined percentage of patient visits for influenza-like-illness (ILI) of 0.87%. Additionally, two of three Sentinel Providers, revealed NO patient visits for ILI. The National level of ILI visits **remained constant** at 1.3%. The National level is well below the baseline level of 2.5%. (Graph 2)
- The percentage of visits to emergency departments in Stark County displaying symptoms consistent with Constitutional and Respiratory (C & R) syndromes was 20.63%. This percentage is **barely above** the expected 20.32% for this time of year. The total number of patient visits by Stark County residents, to emergency departments, **declined** to an average of 476 hospital emergency room visits per day. The amount of visits by Stark County residents slightly exceeds the predicted value for week 44. (Graph 3)
- Over-the-counter sales of both Cough/Cold Products and Thermometers remain **below expected levels**. (Graph 4)
- The state of Ohio remains at **sporadic** geographic influenza activity. National geographic indicators of influenza indicated slight increases in geographical activity with only Hawaii, Pennsylvania, and South Carolina reporting local activity. Sporadic activity was reported by 34 states. (See National map)
- The first influenza-associated pediatric death was reported to CDC during week 44 in a child from Texas. This death was associated with an influenza A virus for which the subtype was not determined.
- National Pneumonia and Influenza (P & I) Mortality Surveillance **increased to 6.7%** of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I. This percentage is **below** the epidemic threshold of 6.9% for week 44.

Additional information for this report is expected within the next two weeks. This includes but is not limited to School surveillance for ILI and total absenteeism and a new category of Emergency Department Visits referred to as ILI +Fever.

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

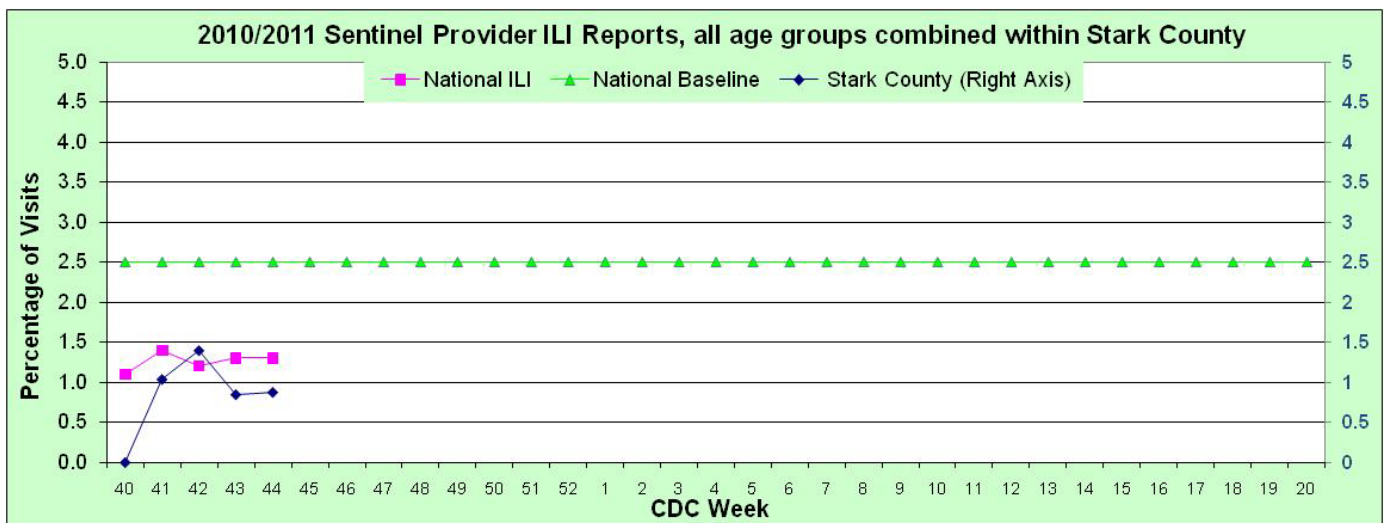
Graph 1: Influenza Cases reported to Local Health Departments

Note: Influenza is only reportable if associated with a hospitalization; therefore, this only represents a small number of actual influenza cases in Stark County.



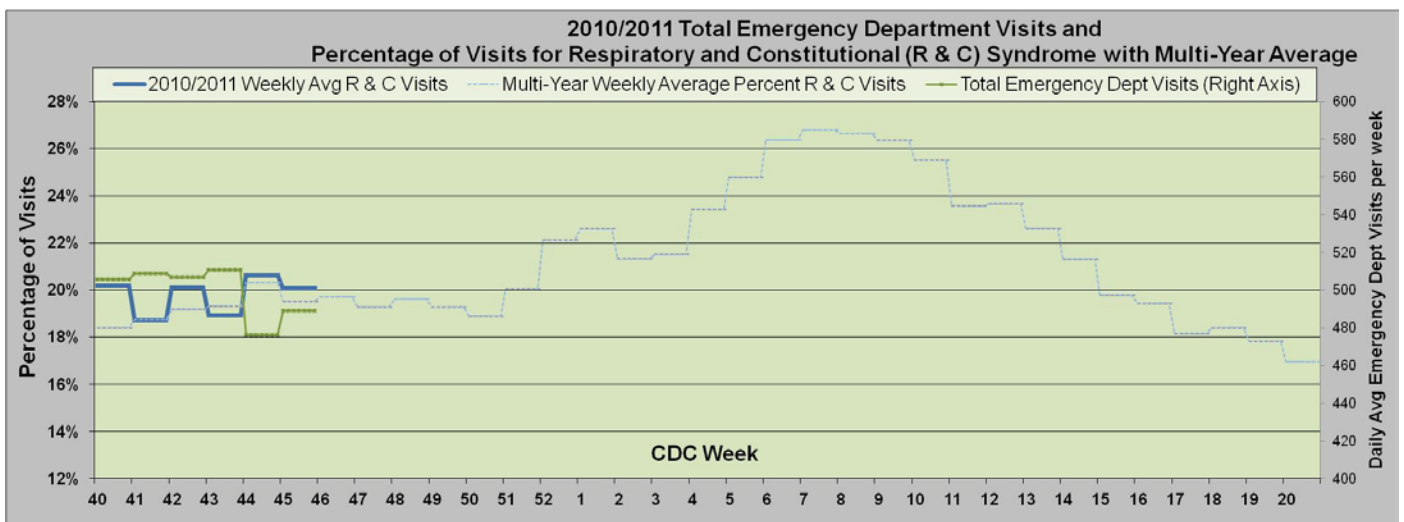
Graph 2: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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 provider’s are combined with other influenza surveillance data to provide a national picture of influenza virus and ILI activity.



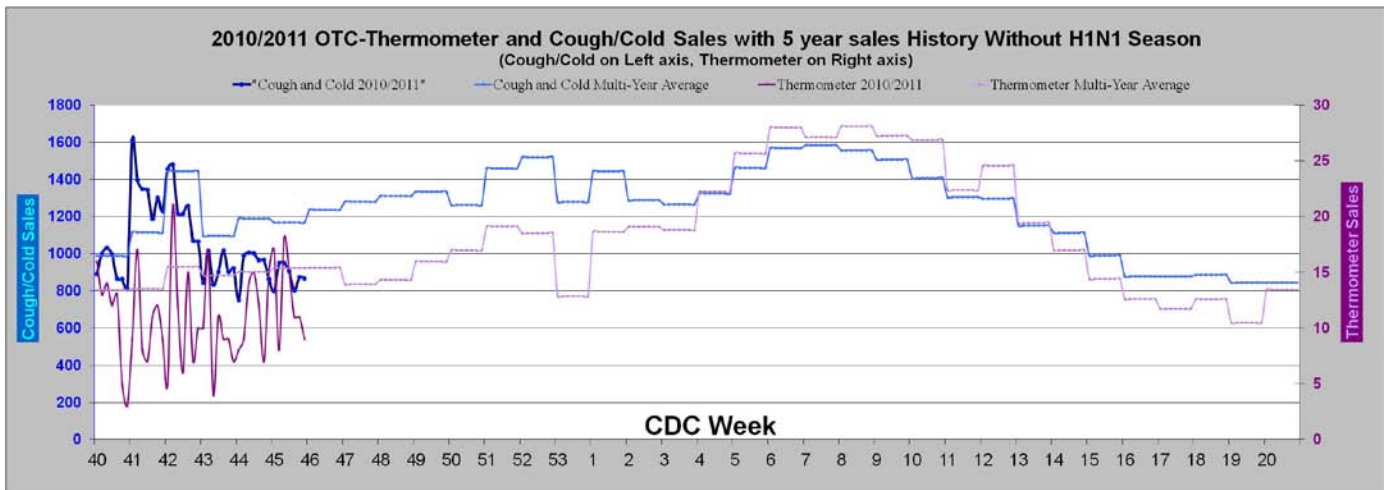
Graph 3: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

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



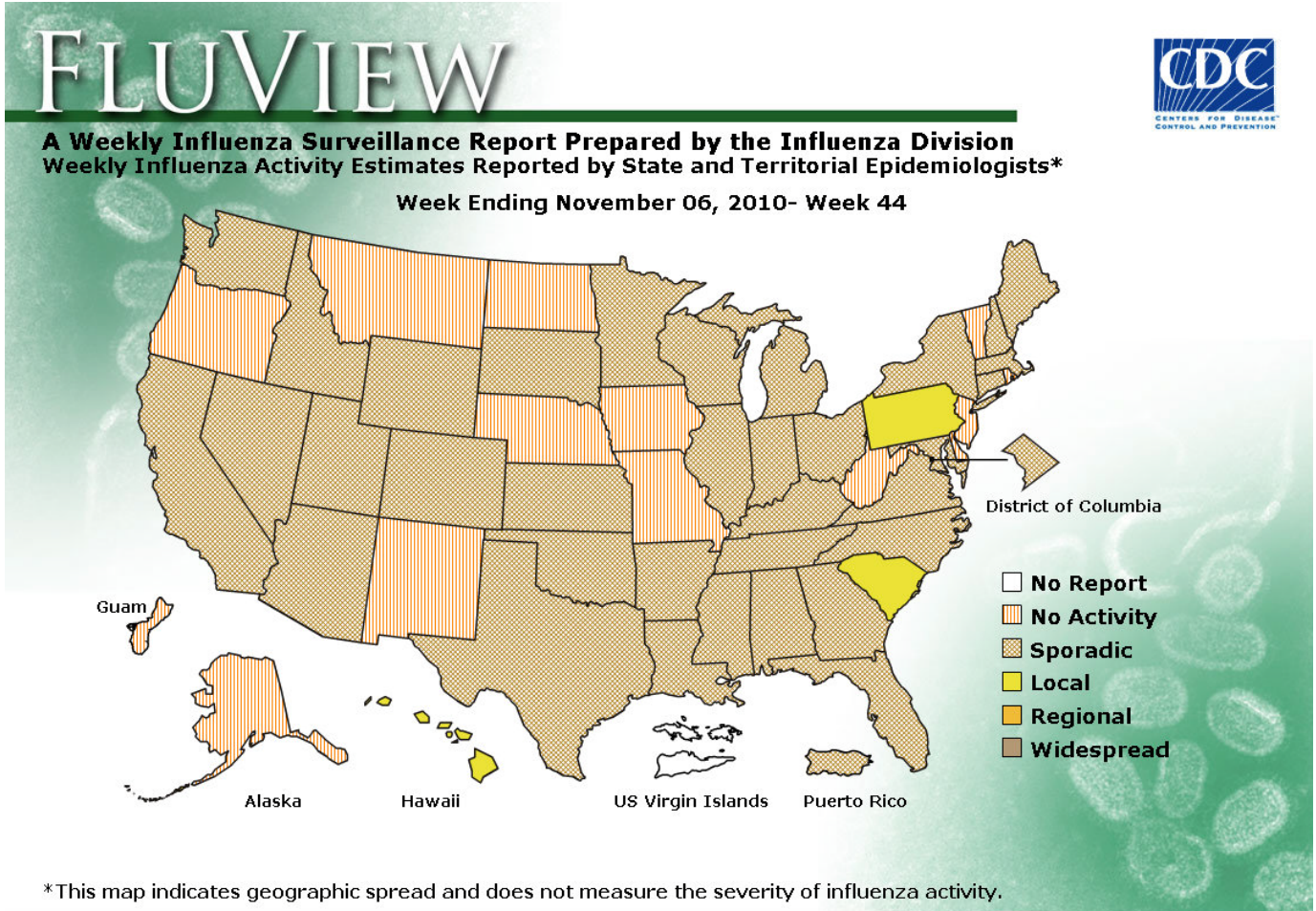
Graph 4: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

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



Graph 5: School Absenteeism. Coming Soon!

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



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.