STARK COUNTY INFLUENZA SNAPSHOT, WEEK 50

Dec 11, 2011 – Dec 17, 2011

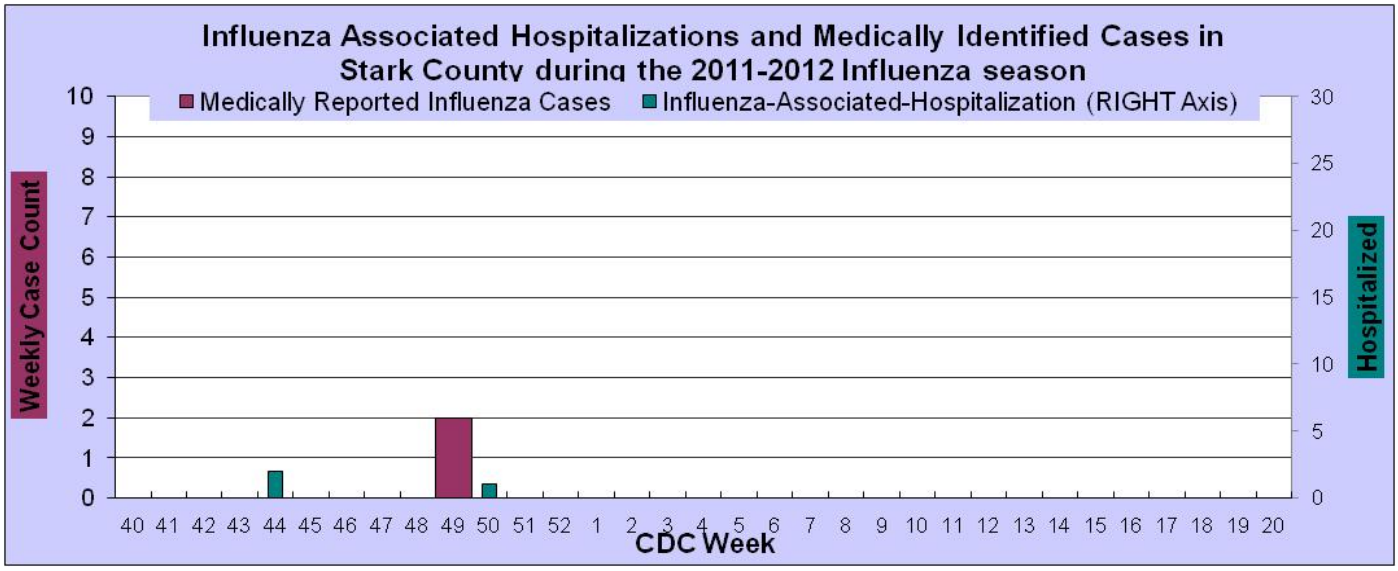
All data are preliminary and may change as additional information is received.
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During week 50, there was one influenza associated hospitalization and overall minimal influenza activity in Stark County, Ohio and the Nation.

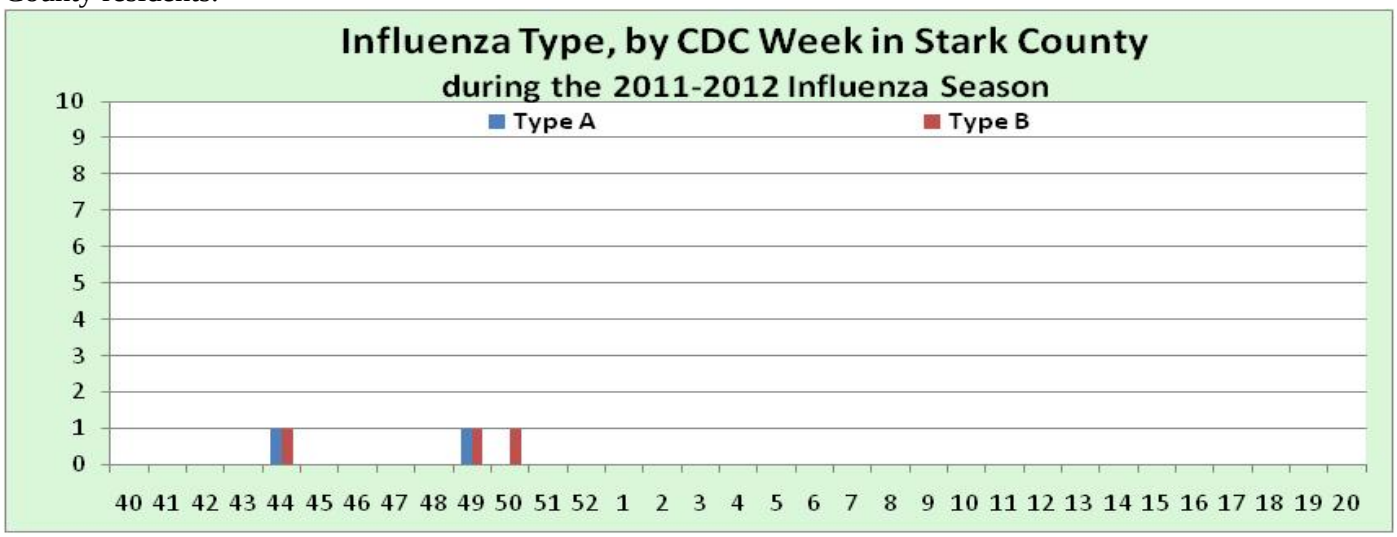
- One Hospitalization and no new medically/laboratory reported cases were reported in Stark County residents during week 50**.** A total of 3 hospitalizations have been reported this season. (Graph 1)
- Influenza-associated hospitalized cases in Stark County ranged in age from 62 - 87years with a **median of 80 years.** With only 3 reports this season, 100% reported their race as Caucasian.
- The population age rate for those seeking medical diagnosis and obtaining a lab result positive for influenza is nearly inverse of those requiring hospitalization. Those that sought medical treatment and did not require hospitalization were primarily young.
- Strains of Influenza in Stark County residents: 1-Influenza A (H3), 3-Influenza B, and 1-Type A with unknown characterization. (See Graph 2) The CDC has antigenically characterized 63 influenza viruses since Oct 1, 2011: nine 2009 influenza A (H1N1), 43 influenza A (H3N2) viruses, and 11 influenza B viruses (7 Victoria Lineage and 4 of the Yamagata Lineage which is not part of this seasons vaccine**)**.
- On December 23rd the CDC published *Influenza A (H3N2)v Transmission and Guideliness*. This report provides the new nomenclature for the novel virus and describes three cases, one in an adult with occupational exposure and two in children involving limited human-to-human transmission in a day care setting. From August 17 to December 23, 2011, CDC received reports of 12 human infections with influenza A (H3N2)v viruses that have the matrix (M) gene from the influenza A (H1N1)pdm09 virus (formerly called swine-origin influenza A [H3N2] and pandemic influenza A [H1N1] 2009 viruses, respectively). The 12 cases occurred in five states, and 11 were in children. Six of the 12 patients had no identified recent exposure to swine. Three of the 12 patients were hospitalized, and all have recovered fully. The full report is online at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e1223a1.htm.
- Week 50 National outpatient activity of influenza-like-illness (ILI), as reported by Sentinel Providers, **increased** slightly to 1.4%. The National outpatient activity level is well below the epidemic baseline of 2.4%. Stark County Sentinel Providers reported a **decrease** to 0% of patients with ILI. (Graph 3)
- Emergency Department visits specifically for symptoms consistent with Constitutional and Respiratory (C & R) syndrome and ILI + Fever continued their seasonally predicted increasing trends. Currently 28% of all visits by Stark County Residents are for symptoms consistent with C & R Syndrome. Note: In 2011, Aultman and Mercy stat cares were added as a data source. These facilities have historically seen more patients for C & R & ILI + Fever syndromes than their main hospital counterparts. Therefore an overall increase in volume and percentage over the previous year's average is expected.(Graph 4)
- Over-The-Counter (OTC) Cough and Cold Products and Thermometer sales are below baseline levels and are following seasonally expected trends. (Graph 5)
- With 60 schools reporting, total school absenteeism **decreased** slightly to 3.8%. Reports of absenteeism due to ILI were minimal. (Graph 6)
- During week 50, an **increase** to 37 states, including the State of Ohio reported Sporadic influenza activity. (Sporadic activity is defined as small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI). Nationally two states, Alabama, and Virginia, reported Local influenza activity, and no states reported Widespread or Regional geographical influenza activity. (See Map)
- During CDC Week 50 , National Pneumonia and Influenza (P & I) Mortality Surveillance of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I, **decreased** to 6.4%. This is below the P & I epidemic threshold, now at 7.3%.
- No influenza-associated pediatric deaths have been reported to the CDC this season

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.

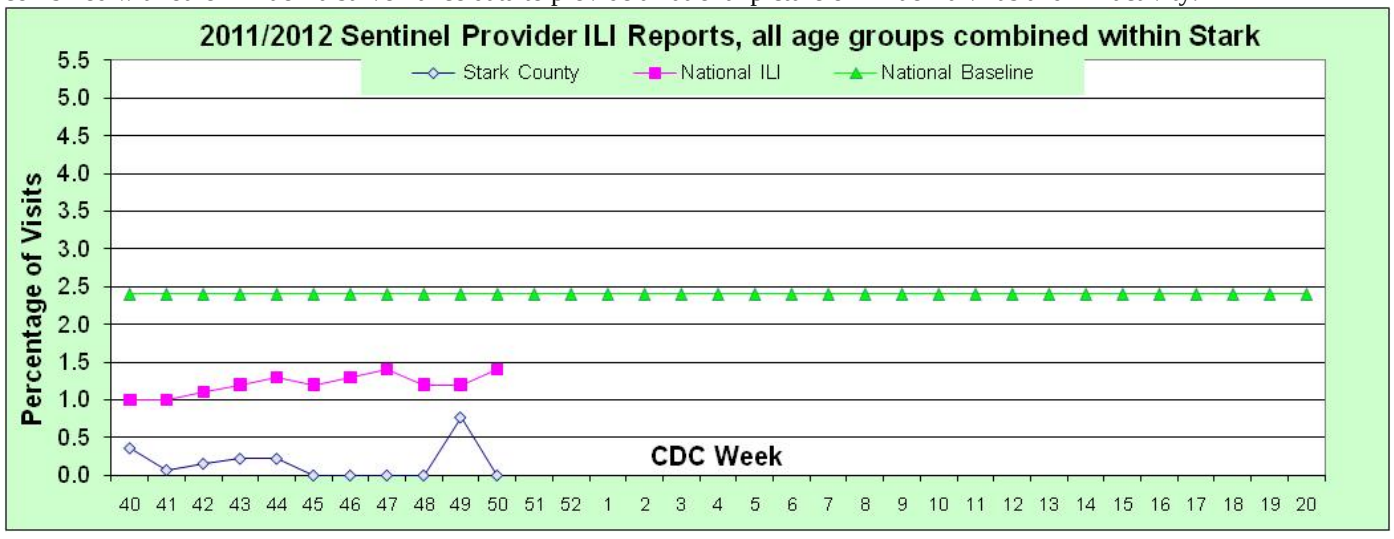


Graph 2: Stark County Influenza Type, by CDC Week in Stark County. The graph depicts the number of cases reported with hospitalization and by the medical community combined, per CDC week. All cases are Stark County residents.

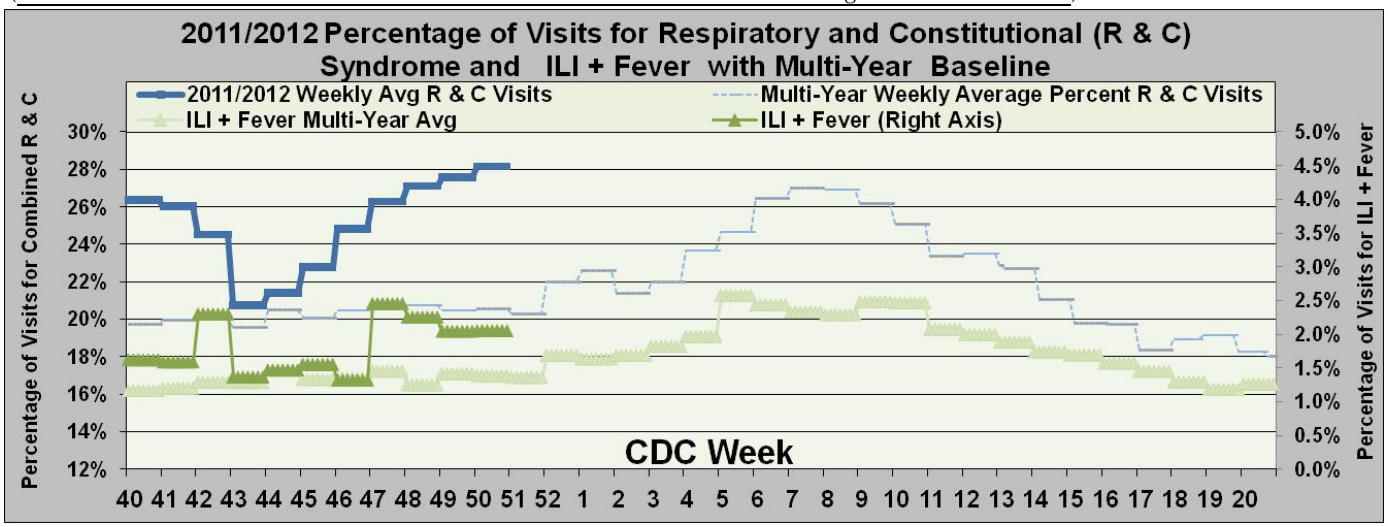


Graph 3: Sentinel Provider Reported Influenza-Like-Illness in Stark County

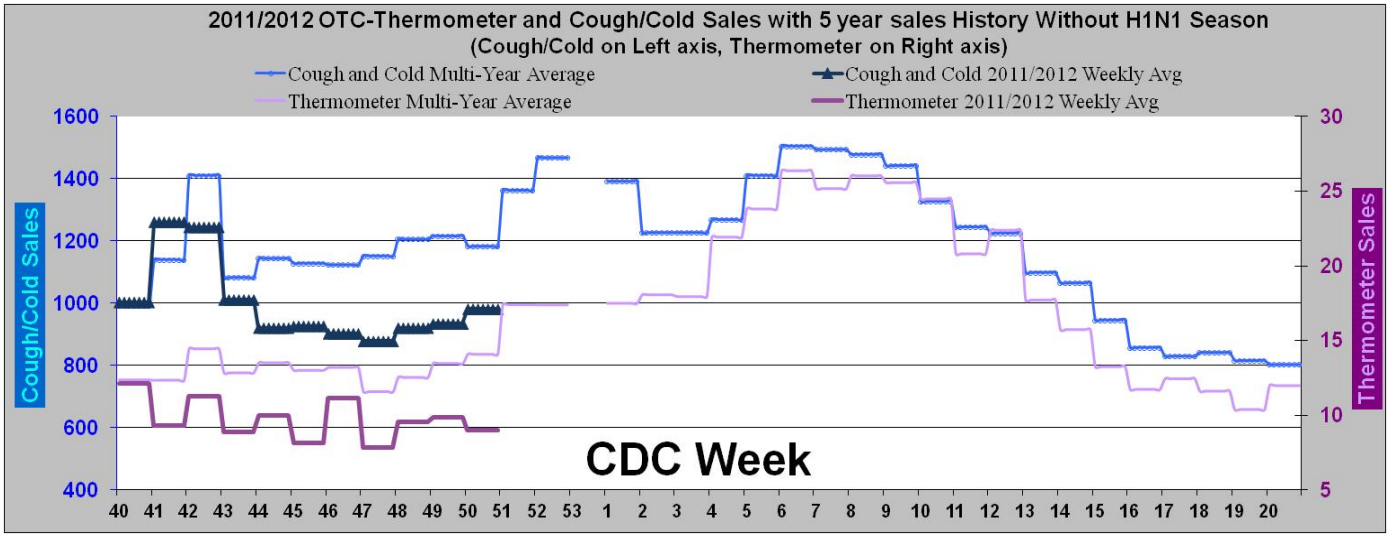
Sentinel Providers-An influenza sentinel provider conducts surveillance for influenza-like illness (ILI) in collaboration with the state health department and the Centers for Disease Control and Prevention (CDC). Data reported by Stark Counties 4 providers are combined with other influenza surveillance data to provide a national picture of influenza virus and ILI activity.



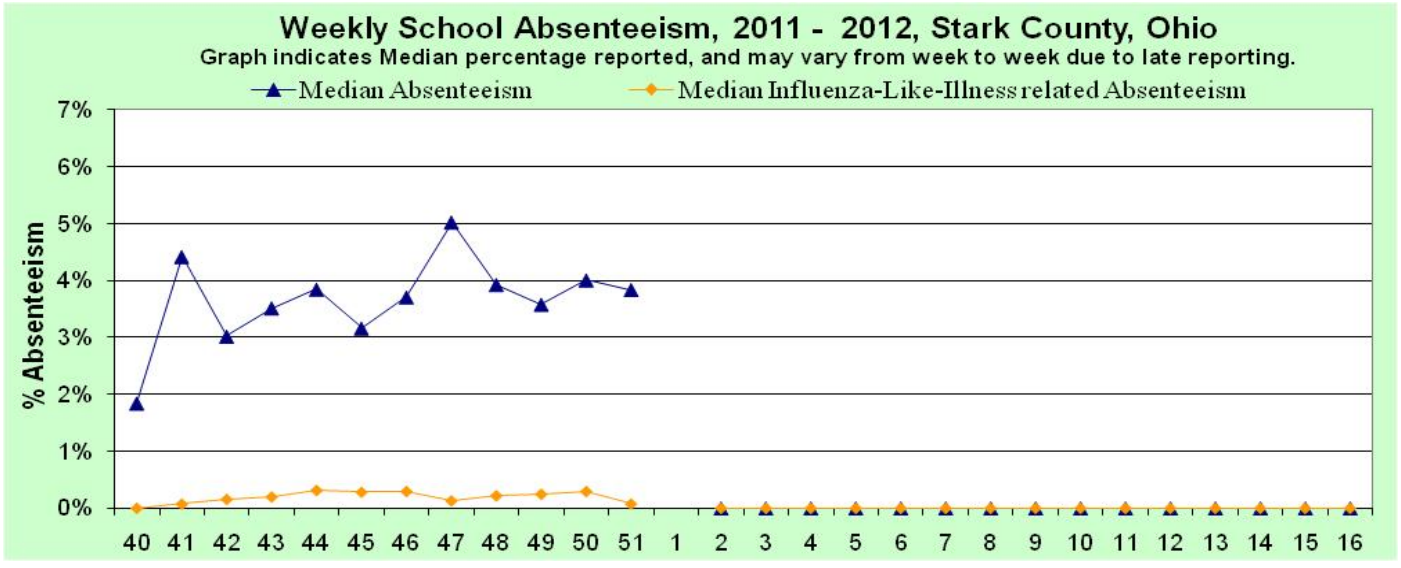
Graph 4: Emergency Department Visits for combined Respiratory and Constitutional Syndromes
(Source Health Monitoring Systems, EpiCenter, hospital patient visit surveillance system)
(Note a loss of data was observed from several facilities during CDC weeks 42-46)



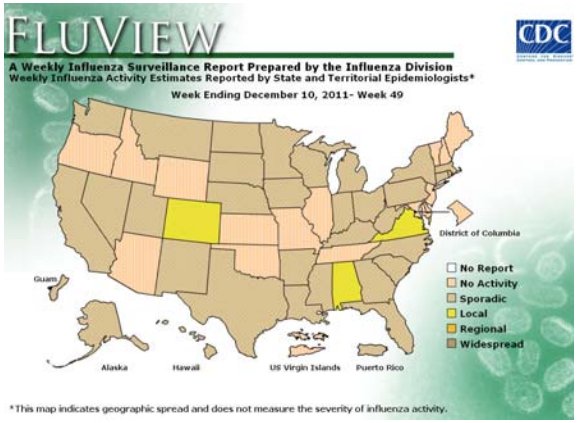
Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County
Source: RODS Real time Outbreak Disease Surveillance, Retail pharmaceutical sales.



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)



FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending December 17, 2011- Week 50

District of Columbia

Guam

Alaska

Hawaii

US Virgin Islands

Puerto Rico

- No Report
- No Activity
- Sporadic
- Local
- Regional
- Widespread

*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 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.