STARK COUNTY INFLUENZA SNAPSHOT, WEEK 07

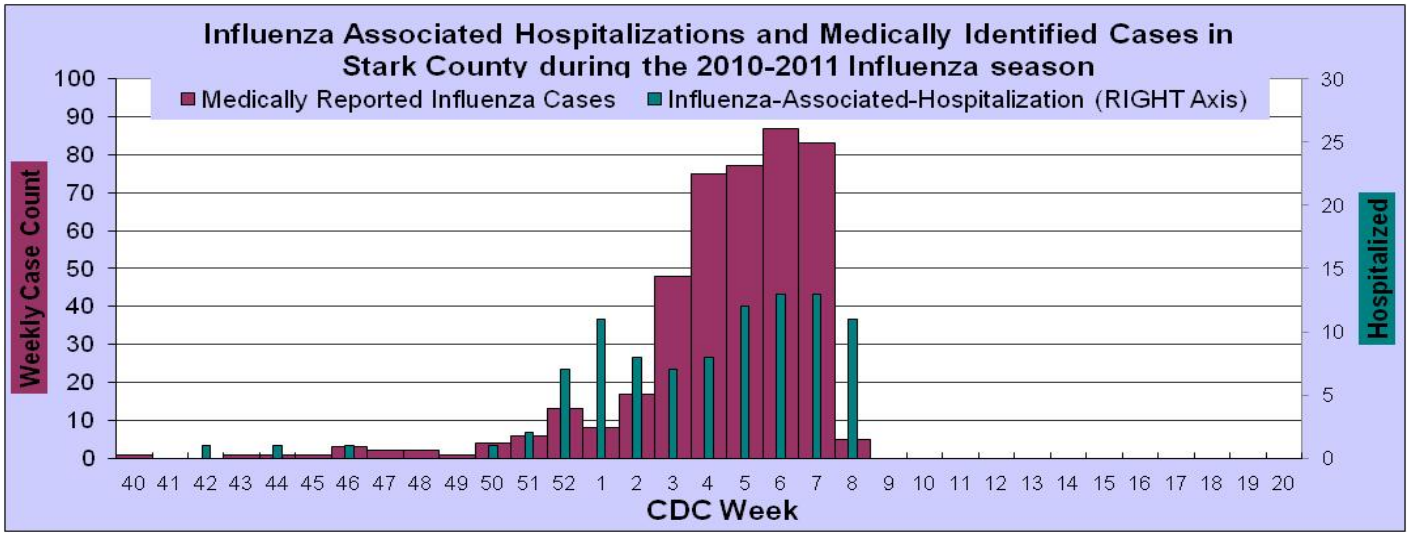
Week ending February 19, 2011. With updates through 02/25/2011.
All data are preliminary and may change as additional information is received.
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During week 07, (February 13, 2010 – February19, 2011) influenza-like-illness (ILI) activity remained elevated in Stark County, Ohio and Nationally. Locally, increases were seen in hospitalizations, the number of influenza B cases, school absenteeism and hospital visits.

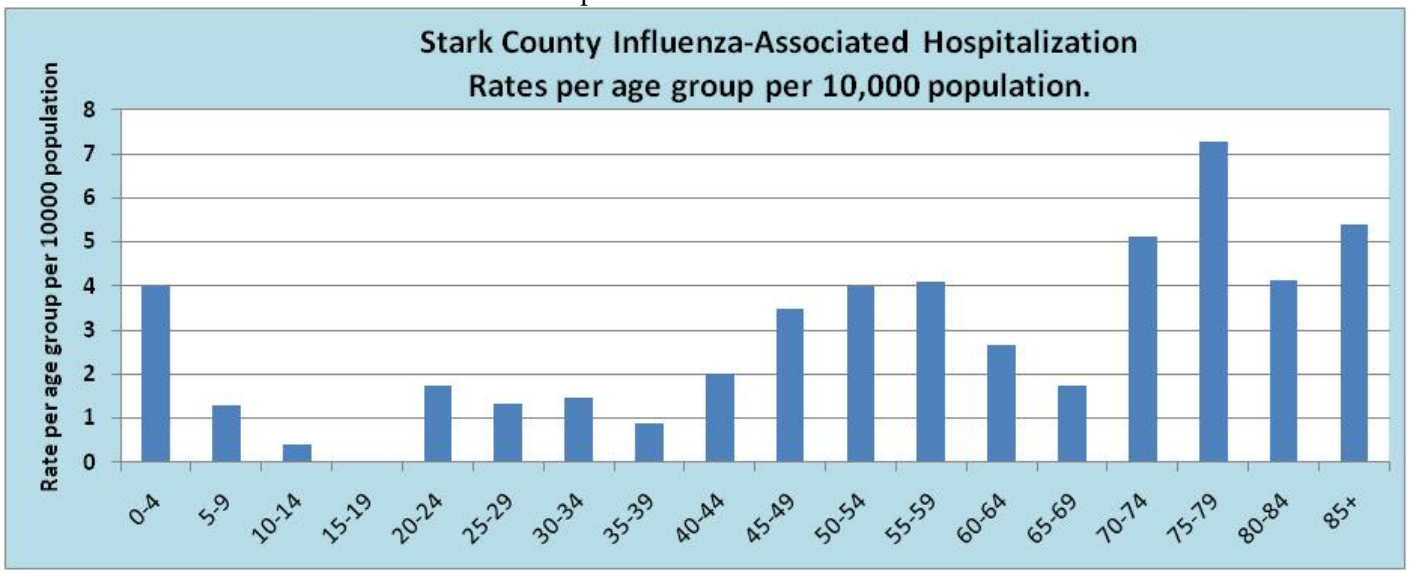
- Hospitalizations for influenza remained at **season high levels**, while the medically/laboratory reported cases (herein after referred to as lab reports) **decreased slightly**. Thirteen (13) hospitalizations and an additional 83 lab reports of influenza were received in Stark County. (Graph 1)
- 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 8.7% self reported as African American. (Graph 2)
- Demographics for lab reported influenza cases in Stark County: the age range is 3 months to 90+ years with a **median of 28 years** and 15.6% self- identified as African American. (Graph 2)
- Hospitalization in seniors continues at disproportionately high levels. As seen in the graph, the 4 highest rates of influenza associated hospitalization are in those age groupings 70 and over, with rates as high as 7 per 10,000 population.(Graph 2)
- The total number of influenza B cases identified in Stark County continues to increase, with 11 in week 7. Historically this is significant, as the number of influenza B cases tends to increase as influenza A cases have peaked. **Additionally**, influenza B cases are associated with 39% of all influenza related pediatric deaths nationally, thereby increasing the need for parents and caregivers to be alert of complications in children and to seek medical treatment if symptoms persist or worsen.
- National indicators of outpatient activity of influenza-like-illness (ILI), as reported by Sentinel Providers, continued at a level nearly double the baseline of 2.5% The National ILI is 4.9%, and with only two reporters in the county, the local level dropped to 1.19%.(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 **remained above baseline levels.** C & R visits continued to **increase**, now accounting for nearly 29% of all visits to area Emergency Departments.(Graph 4)
- Over-the-counter sales of both Cough/Cold items and Thermometers **decreased** during CDC week 7. Both Thermometer and Cough/Cold Products sales are below baseline levels. (Graph 5)
- With 57 schools reporting, school absenteeism **increased slightly.** The median percentage of school absenteeism increased to 4.4% and specific reports of ILI **dropped** to 0.3%. (Graph 6)
- During CDC Week 7, forty-four (44) states, **including** Ohio, reported **Widespread** geographical influenza activity. This is an **increase** from 37 in week 6 and covers the majority of the contiguous states. (See Map)
- During CDC Week 7, six additional influenza-associated pediatric deaths were reported to the CDC, for a total of 41 deaths during the 2010-2011 season (none from Ohio). Sixteen of the 41 deaths reported were associated with influenza B viruses, 10 deaths reported were associated with influenza A (H3) viruses, eight were associated with 2009 influenza A (H1N1) viruses, and seven were associated with an influenza A virus for which the subtype was not determined.
- During CDC Week 7 , National Pneumonia and Influenza (P & I) Mortality Surveillance of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I, **declined** to 8.3%, remaining **above** the epidemic threshold of 8.0%.
- Circulating strains of influenza, confirmed in Ohio, include influenza A (H3), influenza A (H1N1) and influenza B/Brisbane-like. 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 and 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.

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.

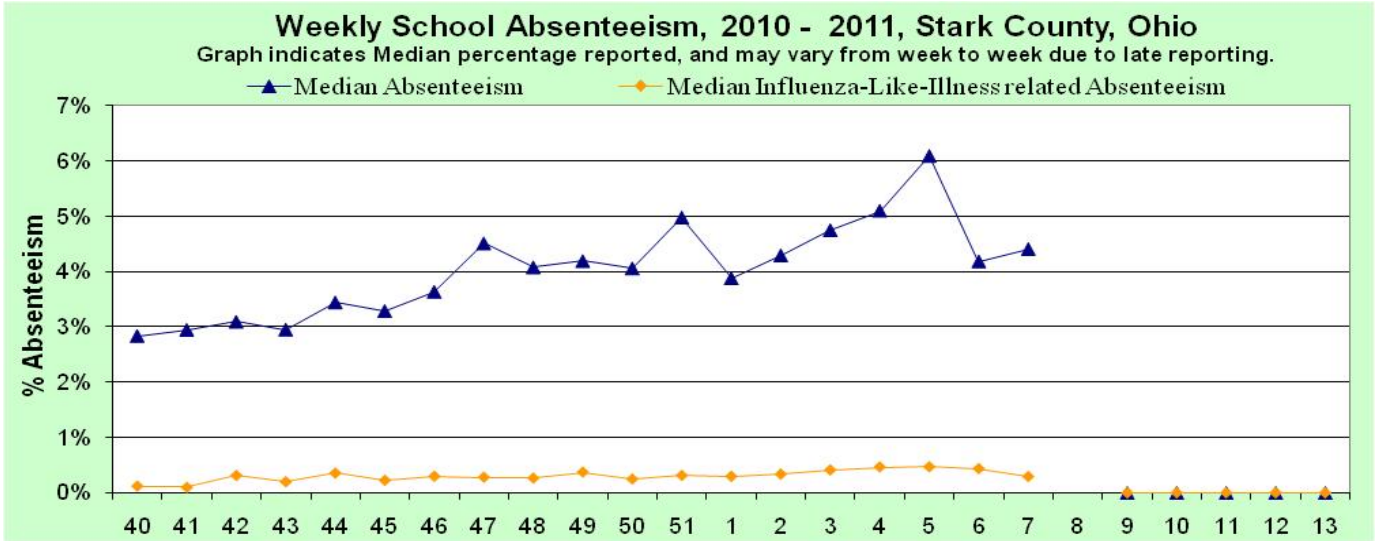


Graph 2: Stark County Influenza-Associated Hospitalizations. The graph shows the population category rate for the number of influenza-associated cases reported in the 2010-2011 influenza season.



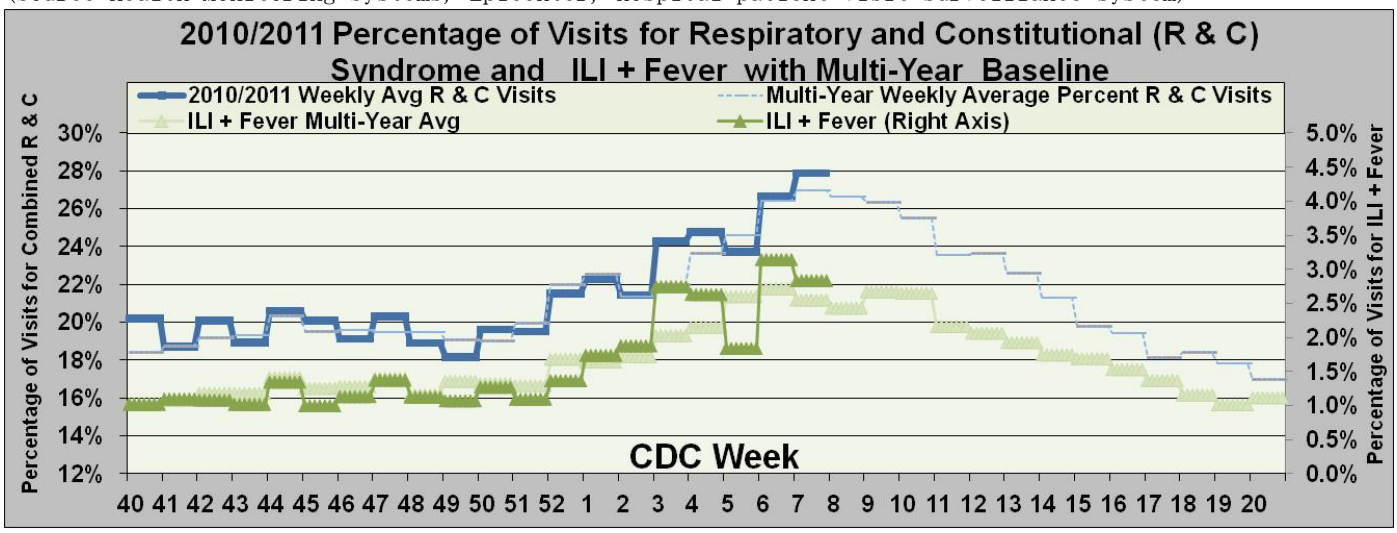
Graph 3: Sentinel Provider Reported Influenza-Like-Illness in Stark County

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.



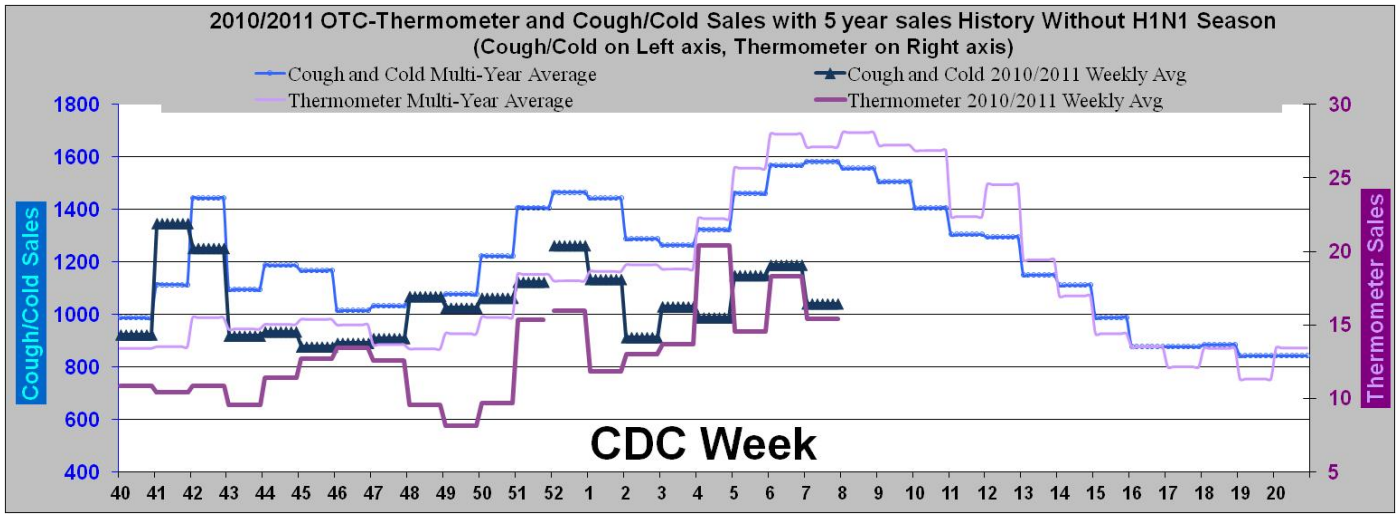
Graph 4: Emergency Department Visits for combined Respiratory and Constitutional Syndromes

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

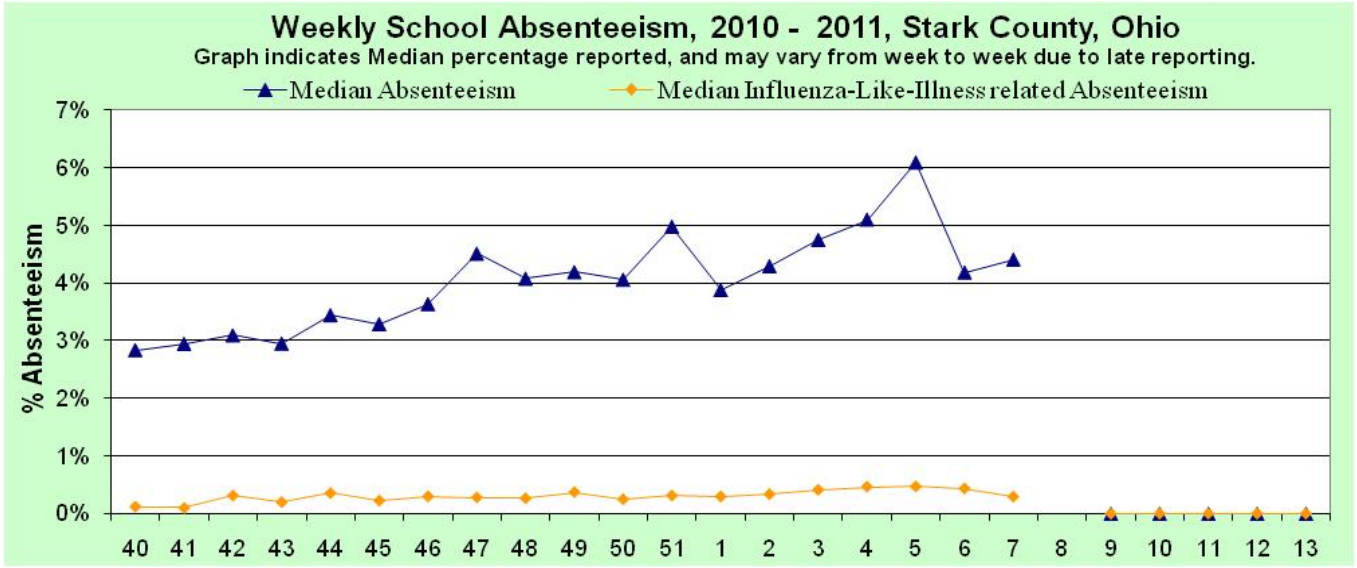


Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County

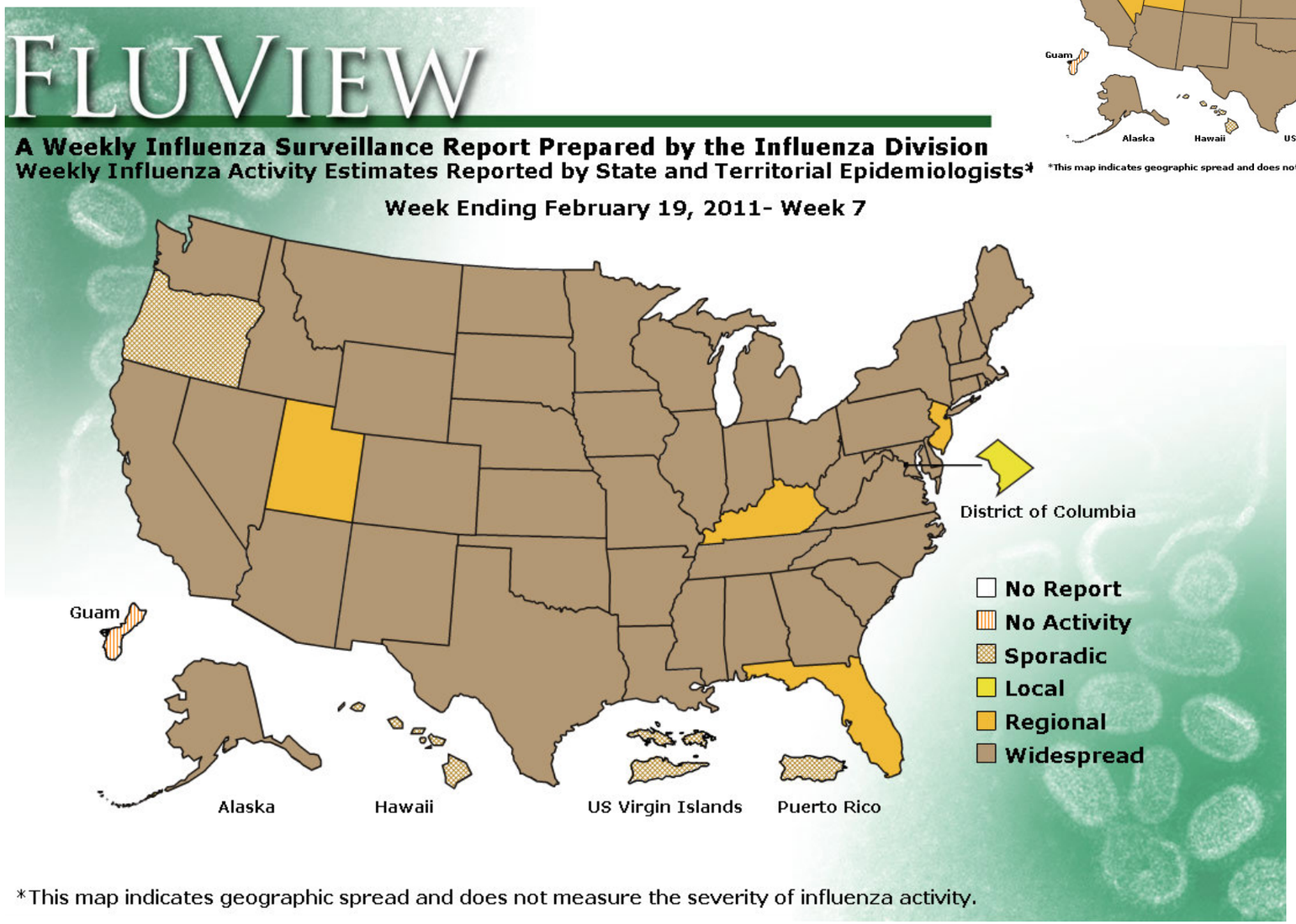
Source: RODS Real time Outbreak Disease Surveillance, Retail pharmaceutical sales.

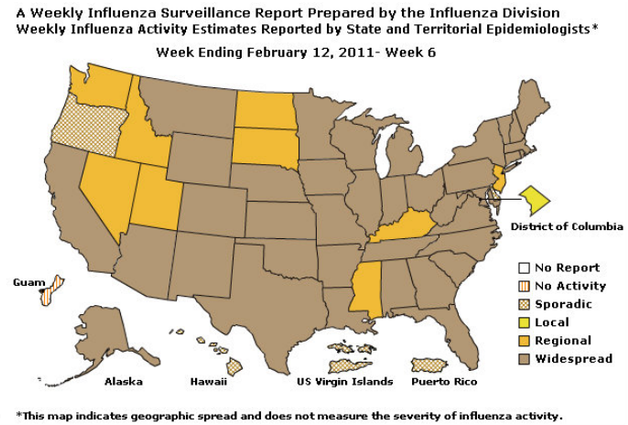


Graph 7: School Absenteeism. School systems from throughout Stark County report total absenteeism and absenteeism due to influenza-like-illness on a weekly basis**.**



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





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.