STARK COUNTY INFLUENZA SNAPSHOT, WEEKS 11 & 12

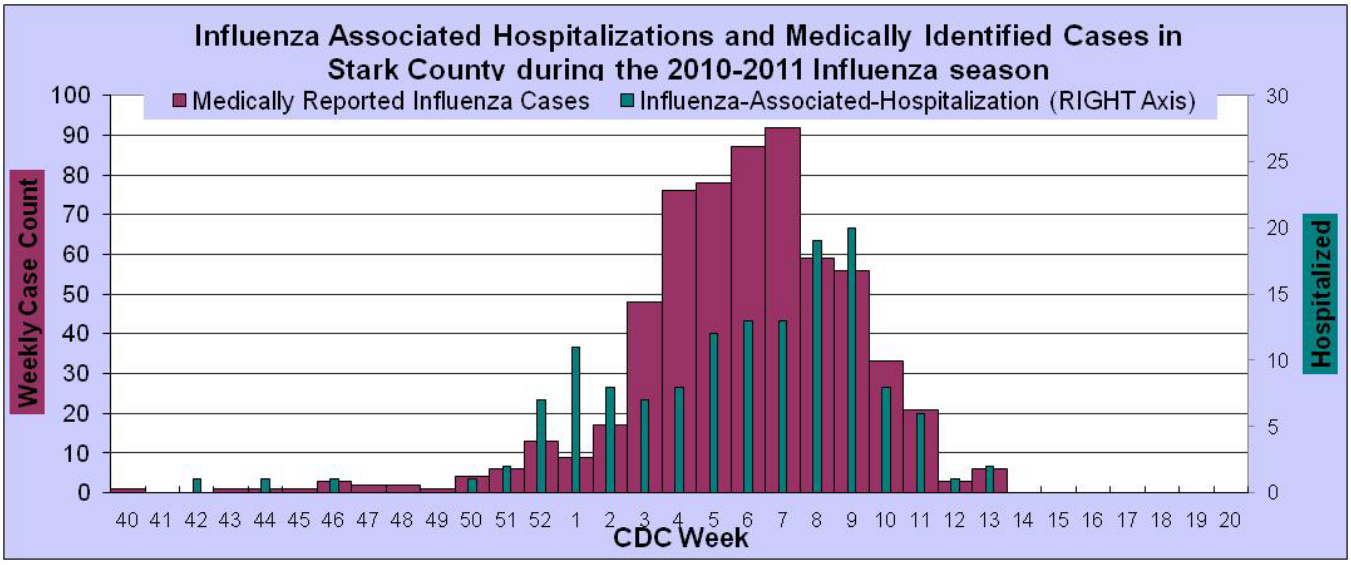
Weeks ending March 26, 2011. With updates through 04/01/2011.
All data are preliminary and may change as additional information is received.
NOTE: Compilation of multiyear averages do not include the 2009/2010 H1N1 season.

During weeks 11 and 12, (March 13, 2011 – March 26, 2011) nearly all surveillance tools for influenza activity, revealed decreasing trends in Stark County. Unfortunately, with a 50% increase in the population rate of confirmed cases amongst seniors in Stark County, they continue to be disproportionately affected by influenza.

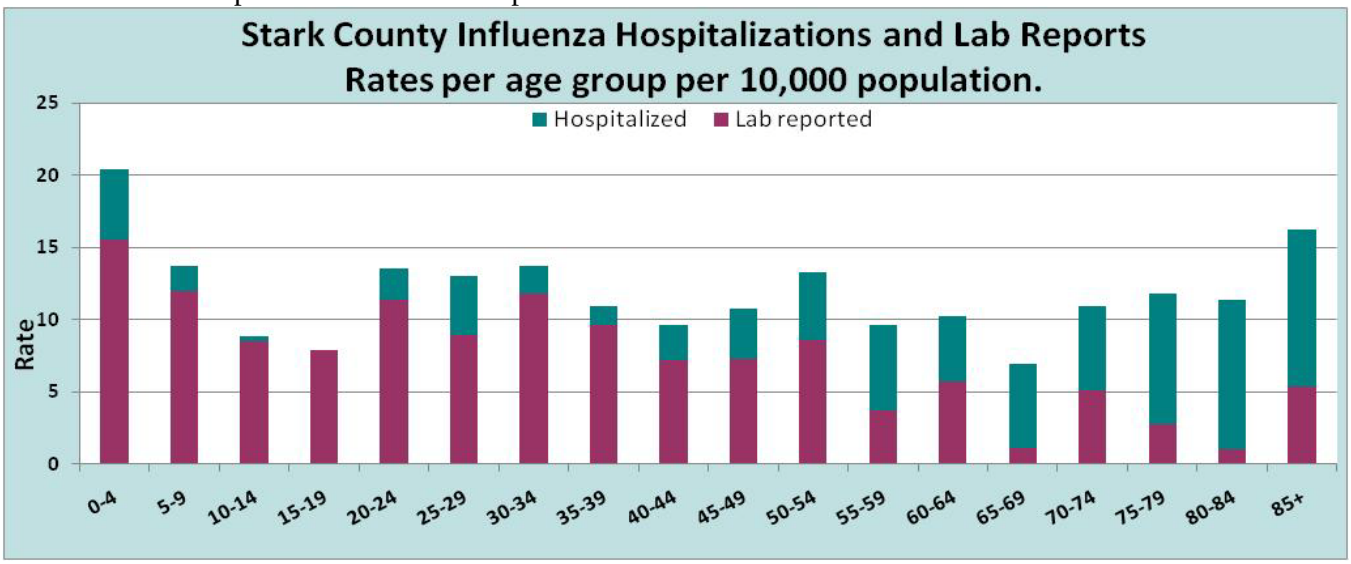
- Hospitalizations and Medically/Laboratory reported cases (herein after referred to as lab reports) continued to **decrease** during both weeks 11 and 12**.** Only one influenza-hospitalization occurred during week 12, and six were reported in week 11. (Graph 1)
- Demographics for the 141 influenza-associated hospitalized cases during the 2010-2011 in Stark County: the age range is 4 months to 90+ years with a **median of 55 years** and 8.89% self reported as African American.
- Demographics for the 615 lab reported influenza cases in Stark County: the age range is 1 month to 90+ years with a **median of 30 years** and 13.9% self- identified as African American.
- The population rate of seniors affected by influenza **increased 50%** from 10.8 per 10,000 population in week 10, to 16.2 per 10,000 population in week 12. This rate includes hospitalizations and lab reports. The overall disease burden continues to be highest in those 0-4 years of age, at 20.45 per 10,000 population. (Graph 2)
- Week 12 National indicators of outpatient activity of influenza-like-illness (ILI), as reported by Sentinel Providers, **declined** to 2.0%, below the epidemic baseline of 2.5%.The local level also **decreased,** it is now 0.34%.(Graph 3)
- Total emergency department patient visits and visits specifically for symptoms consistent with Constitutional and Respiratory (C & R) syndrome and ILI + Fever remained steady and **below** expected levels. During week 12, 22.5% of patient visits were for C & R and 1.61% were for ILI + Fever. (Graph 4)
- Over-The-Counter (OTC) cough and cold product sales dropped to the lowest levels this season, while OTC sales of Thermometers remained steady and well below baseline levels. (Graph 5)
- Twenty-eight (28) schools reported absenteeism data this week. Due to spring break, there are only half the number of reporting schools. Absenteeism remained **steady** at 4.3% of which 0.4% is due to ILI. (Graph 6)
- During week 11, Ohio reported a change in geographical influenza activity, from Widespread to Regional. In week 12 Ohio continues to report Regional activity. For the fourth week, a **decrease** in the number of states reporting Widespread geographical activity was noted. Ten (10) states continue to report **Widespread** geographical influenza activity. (See Map)
- During CDC Week 12 , National Pneumonia and Influenza (P & I) Mortality Surveillance of all deaths reported through the 122 Cities Mortality Reporting System as due to P & I, **increased** to 8.7%. This is the ninth consecutive week that the P & I has exceeded the epidemic threshold.
- Nationally, eighty-nine influenza-associated pediatric deaths have been reported to the CDC this season (one from Ohio). Thirty-three of the 89 (37%) deaths reported were associated with influenza B viruses; 21 (24%) were associated with 2009 influenza A (H1N1) viruses; 17 (19%) deaths reported were associated with influenza A (H3N2) viruses, and 18 were associated with an influenza A virus an unknown subtype.

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.

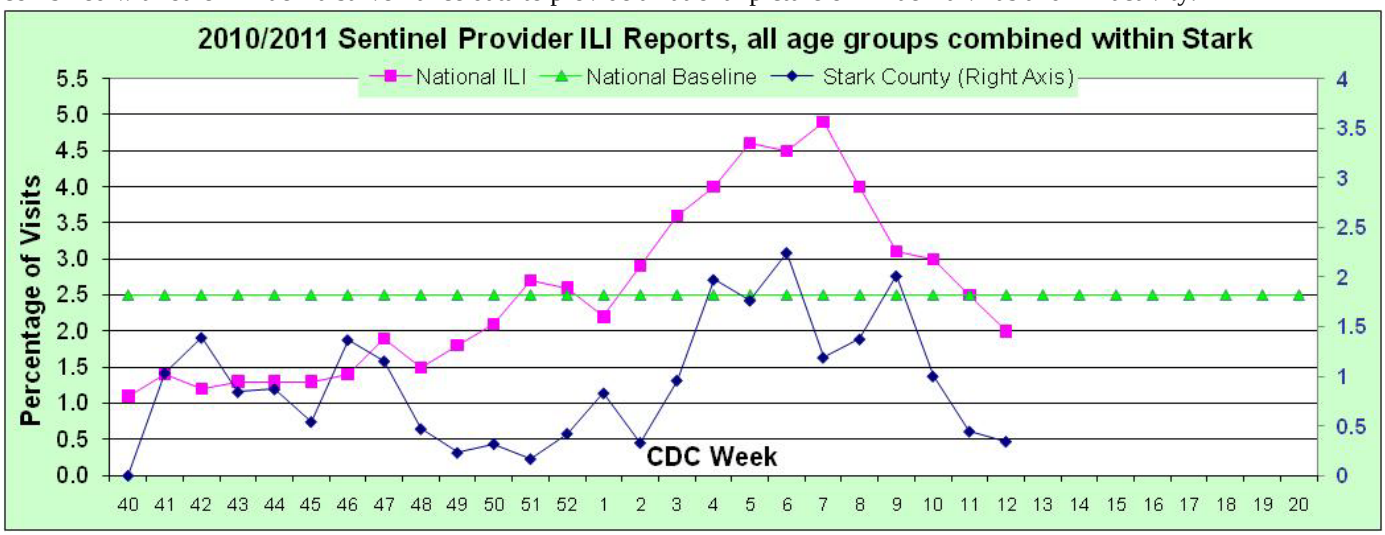


Graph 2: Stark County Rates per 10,000 population Influenza-Associated Hospitalizations and Lab Reported cases. The graph shows the age population category rate for the number of influenza-associated cases stacked with lab reports that have been reported in the 2010-2011 influenza season.

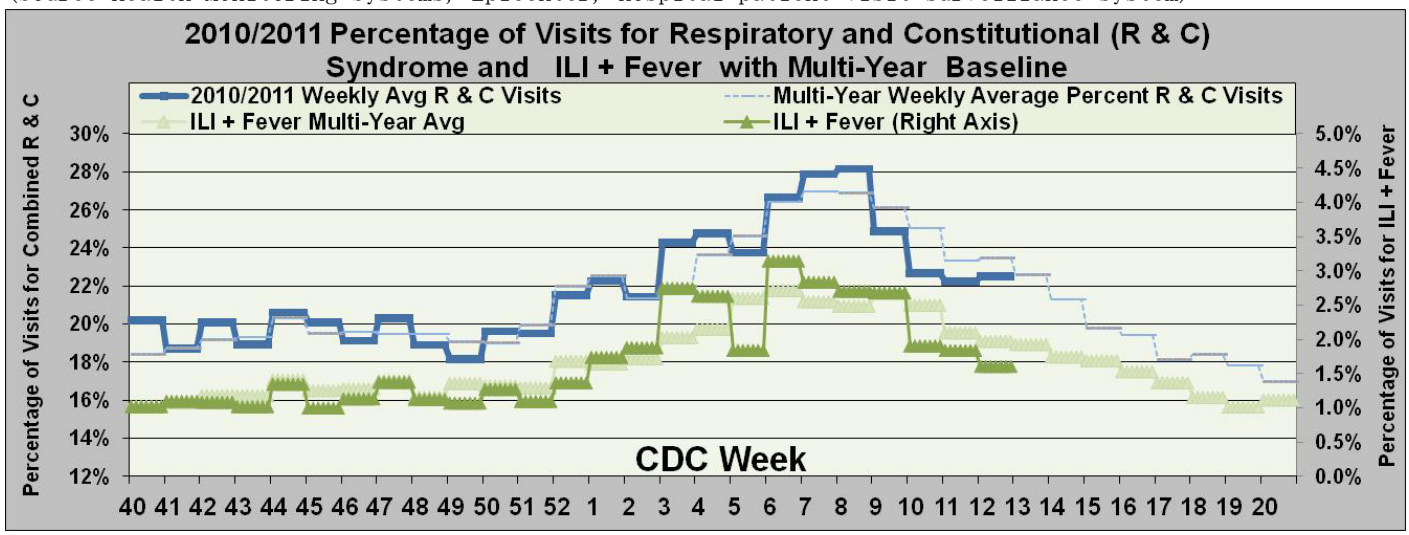


Graph 3: Sentinel Provider Reported Influenza-Like-Illness in Stark County

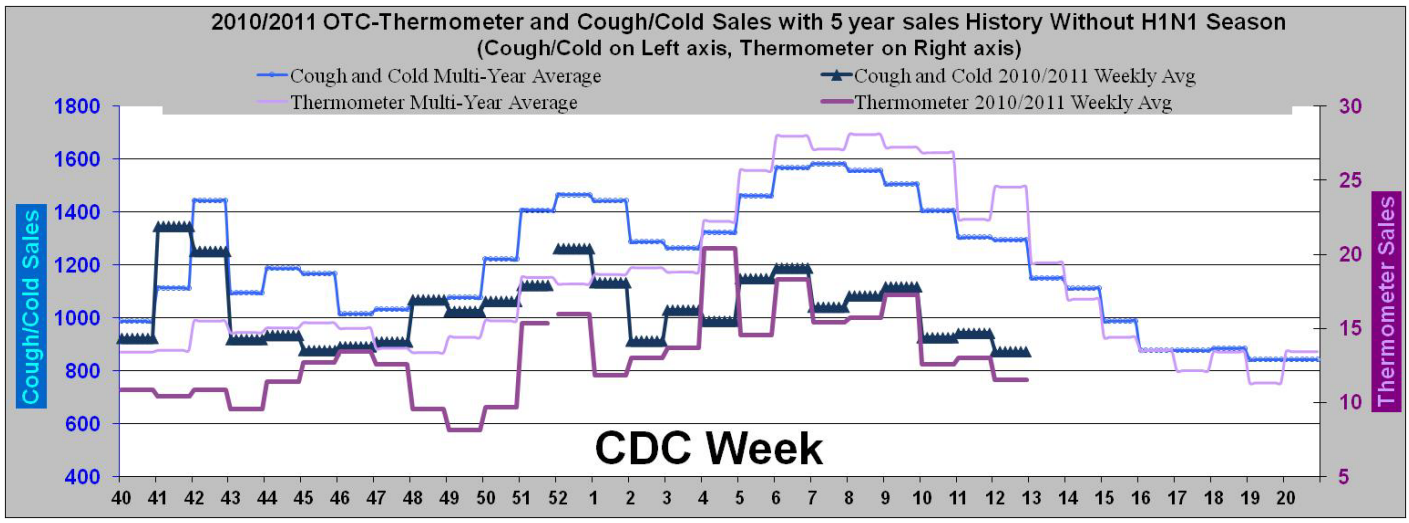
Sentinel Providers-An influenza sentinel provider conducts surveillance for influenza-like illness (ILI) in collaboration with the state health department and the Centers for Disease Control and Prevention (CDC). Data reported by Stark Counties 4 providers are combined with other influenza surveillance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



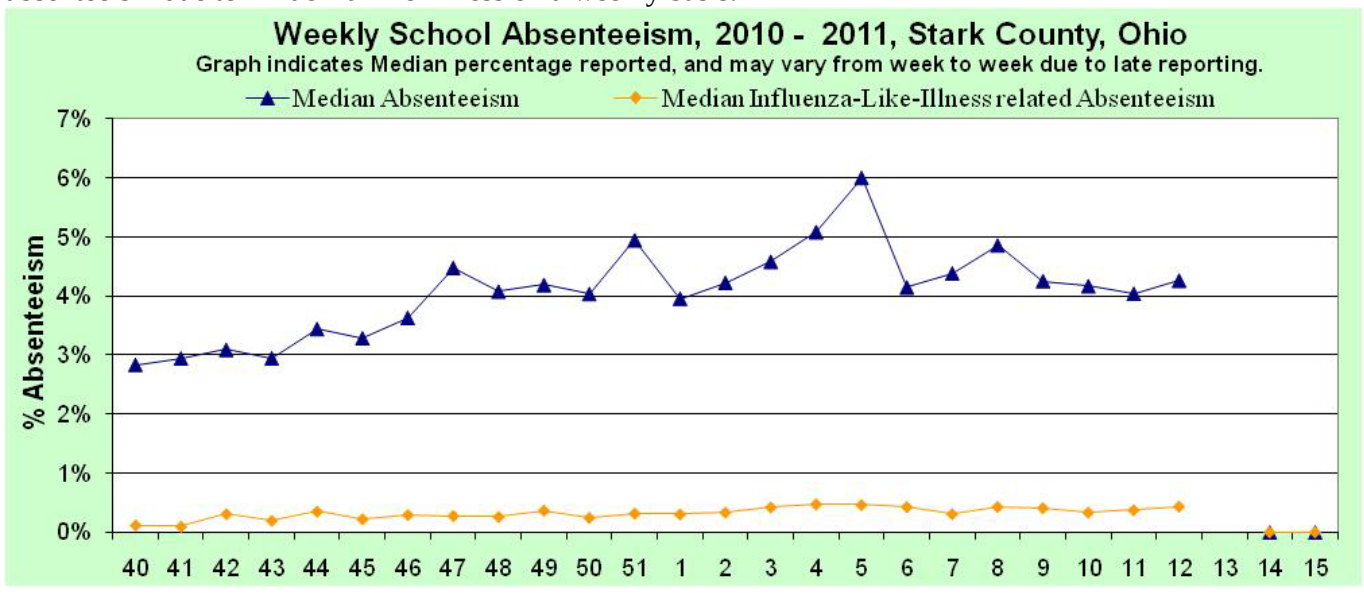
Graph 4: Emergency Department Visits for combined Respiratory and Constitutional Syndromes
(Source Health Monitoring Systems, EpiCenter, hospital patient visit surveillance system)



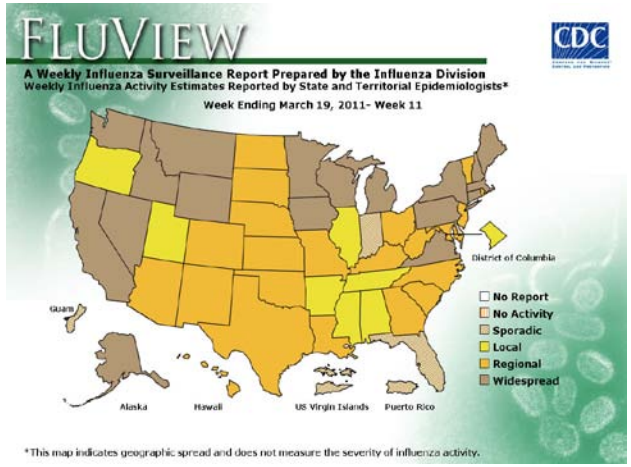
Graph 5: Over-The-Counter Sales of Cough/Cold Product Sales in Stark County Over-The-Counter Sales of Thermometers in Stark County
Source: RODS Real time Outbreak Disease Surveillance, Retail pharmaceutical sales.

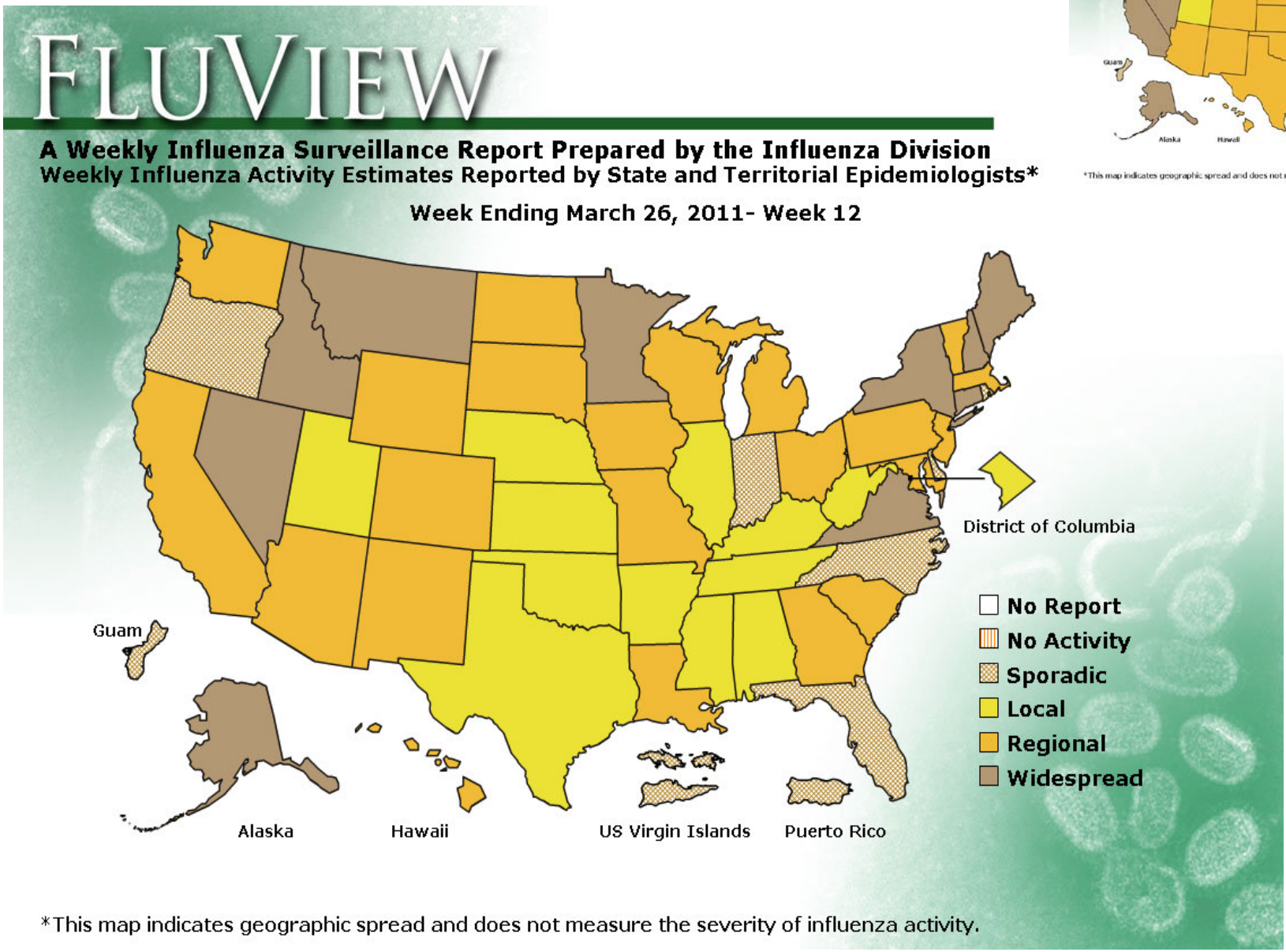


Graph 6: School Absenteeism. School systems from throughout Stark County report total absenteeism and absenteeism due to influenza-like-illness on a weekly basis**.**



Map: Weekly Geographic Influenza Activity Estimates Reported by State and Territorial Epidemiologists (Inset is previous week)
(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.