



Public Health Division Influenza Report

2009-2010 Weekly Influenza Surveillance Report

Updated: Monday, November 16, 2009

Weekly updates will resume on Friday, November 20, 2009



Weekly Snapshot

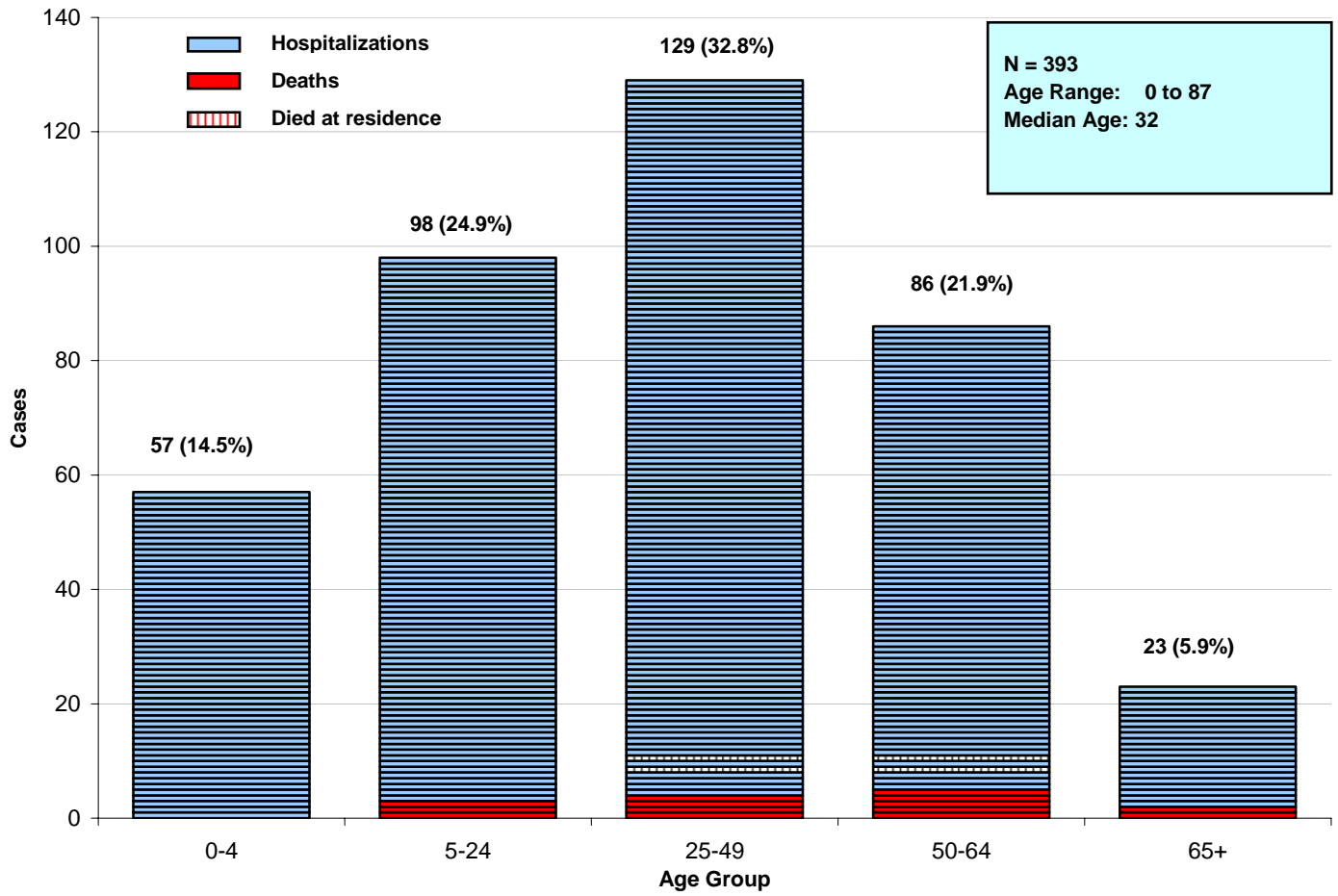
A total of 389 hospitalized persons or persons in intensive care units (ICU) with laboratory-confirmed H1N1 were reported from week 17 (ending 5/2/09) to week 45 (ending 11/14/09) in Sacramento County. During week 45 an additional 30 hospitalized persons or persons in intensive care units were reported. As of November 14, 2009 the majority of laboratory confirmed H1N1 hospitalized persons or persons in intensive care units were between the ages of 25 to 49 years (32.8%), followed by persons ages 5 to 24 years (24.9%). A total of 75.3% (3 out of 4) H1N1 hospitalized persons or persons in intensive care units were less than 50 years of age. As of November 14, 2009 nineteen Sacramento County residents with H1N1 influenza have died. Of the nineteen H1N1 deaths 4 were not hospitalized. During week 45, 3 H1N1 confirmed deaths were reported. All 3 deaths occurred at the residents homes.

Human Cases of H1N1 Influenza

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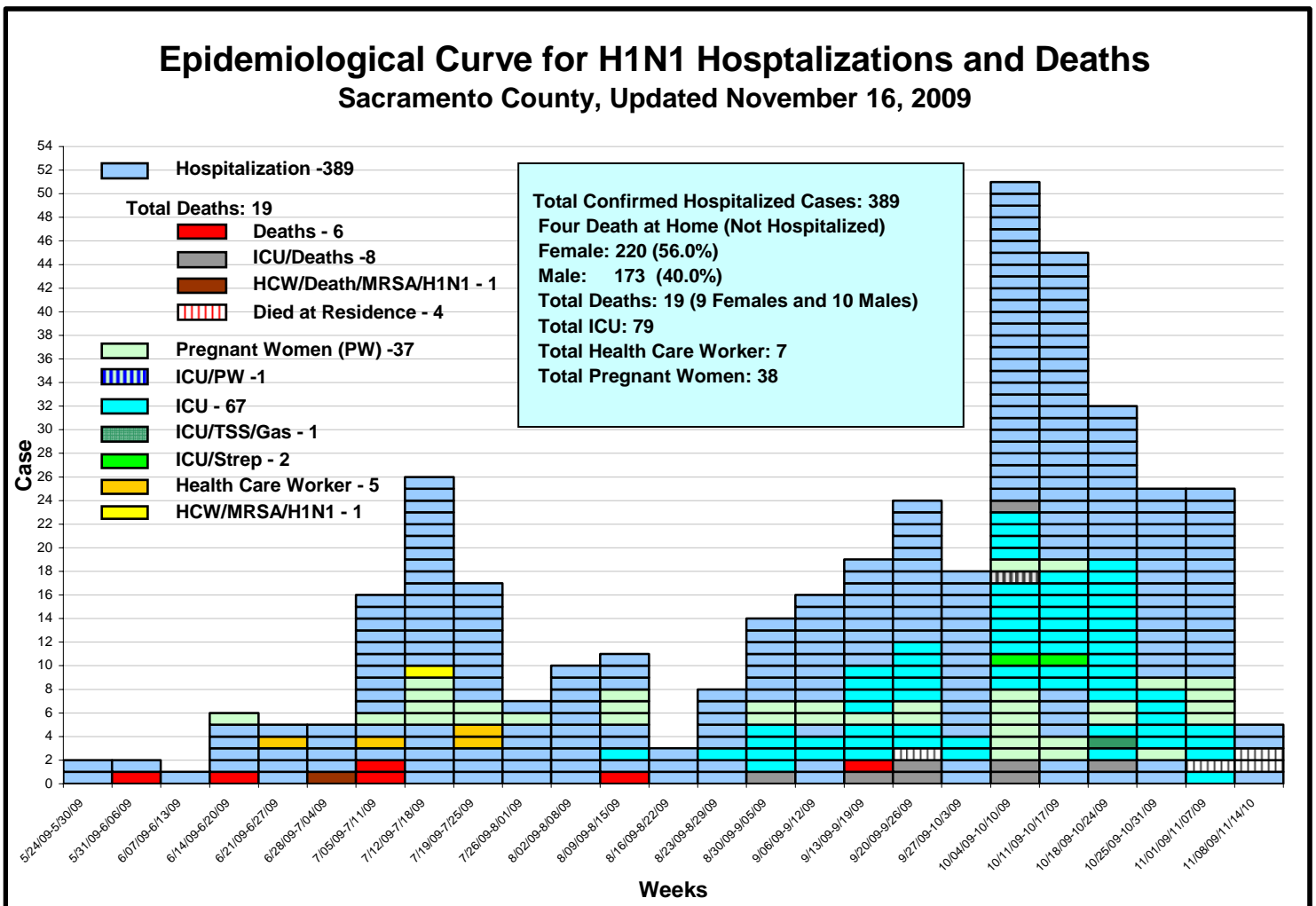
H1N1	Confirmed
Total H1N1 Cases	393
Hospitalizations	389
Non-Hospitalized Deaths	4
Hospitalized Deaths	15

H1N1 Hospitalizations By Age Group, Sacramento County Updated November 16, 2009



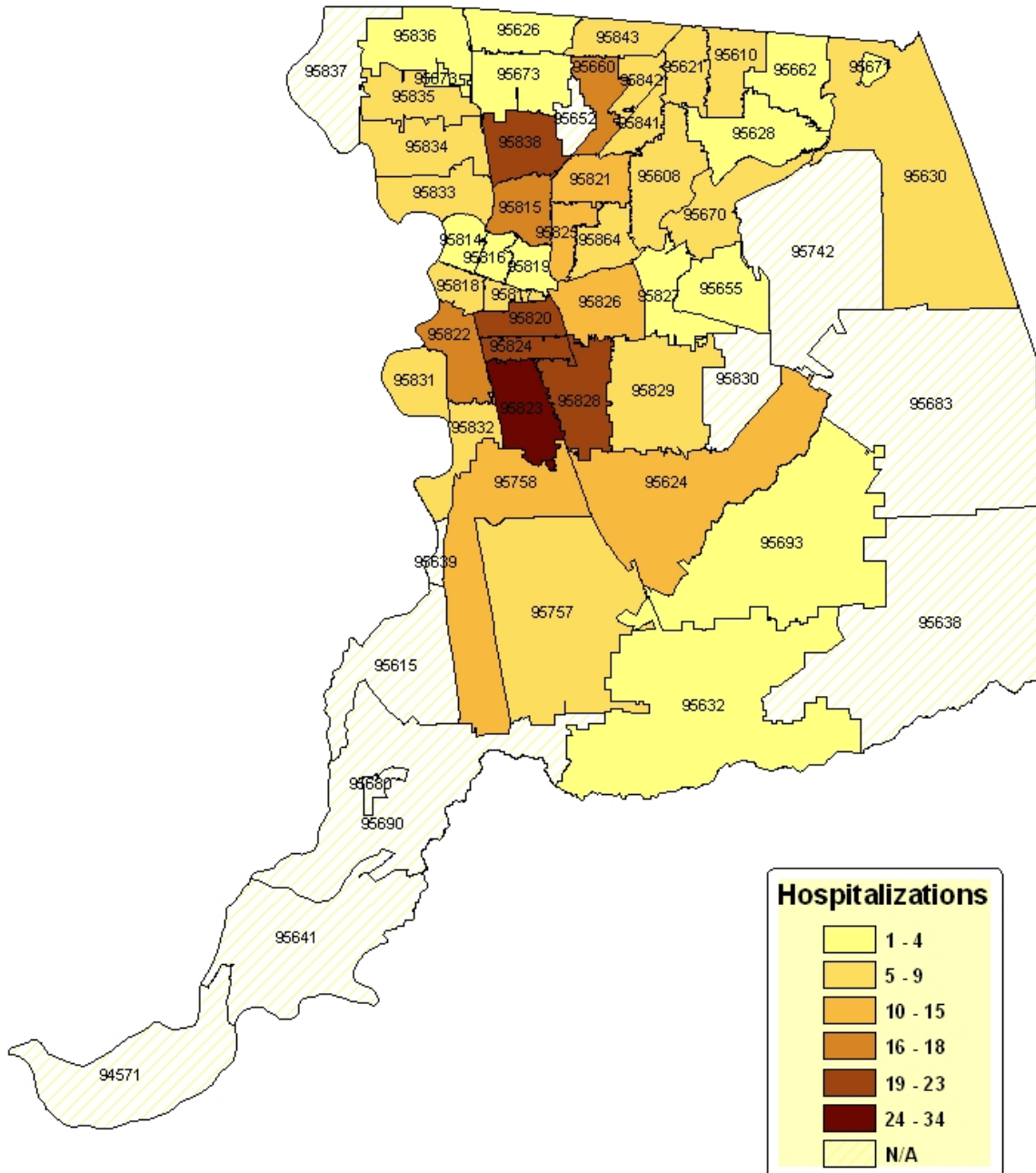
Epidemiological Curve of Hospitalizations & Deaths by Week of Onset:

The epidemic curve below for laboratory confirmed H1N1 hospitalized persons or persons in intensive care units suggest person to person transmission. The epidemic curve shows dates of onset for hospitalized persons or persons in intensive care units with H1N1 occurring from May 27, 2009 to November 14, 2009. This curve shows the initial increase in the number of hospitalized persons or persons in intensive care units occurred the week of July 12, 2009 to July 18, 2009 (n=26). Of the 26 hospitalized or ICU H1N1 cases reported during this week, 4 were pregnant women and 1 case was a health care worker co-infected with Methicillin Resistant Staphylococcus Aureus (MRSA). To date we have 5 H1N1 hospitalized cases with co-infections. The epidemiological curve also shows the peak number of cases (n=96) occurred during the weeks of October 4, 2009 to October 17, 2009. Of the 96 hospitalized or ICU H1N1 cases during the peak, 11 were pregnant women, 24 cases were in ICU and 3 ICU cases died. Of hospitalized persons (47.4%) and persons who died were female. Of the laboratory confirmed H1N1 hospitalizations and ICU cases the majority occurred among residents who lived in zip codes 95823 (Florin/Sacramento), 95824 (Fruitridge), 95838 (Del Paso Heights), 95822, 95815 (Sacramento), 95828 (Florin), 95660 (North Highlands) and 95820 (Oak Park).



H1N1 Hospitalizations by Zip Code, Sacramento County

Updated November 16, 2009



Weekly School Absenteeism Reporting Results:

In Sacramento County 100% of the school districts report weekly to the Public Health Division excused absences at the school and district level. Epidemiology services staff calculate the median and range for each school weekly. Schools are asked to report daily if their absenteeism rate exceeds 10% on any given day, to date; schools have reported exceeding 10% absenteeism 57 times and on 19 occasions schools have reported exceeding greater than 20% absenteeism. The highest school absenteeism rate reported during week 45 was 41.5%. Schools are also asked to report influenza like symptoms including fever, cough and muscle ache.

Average Daily Absenteeism* for Schools with Enrollments of >= 100 Students

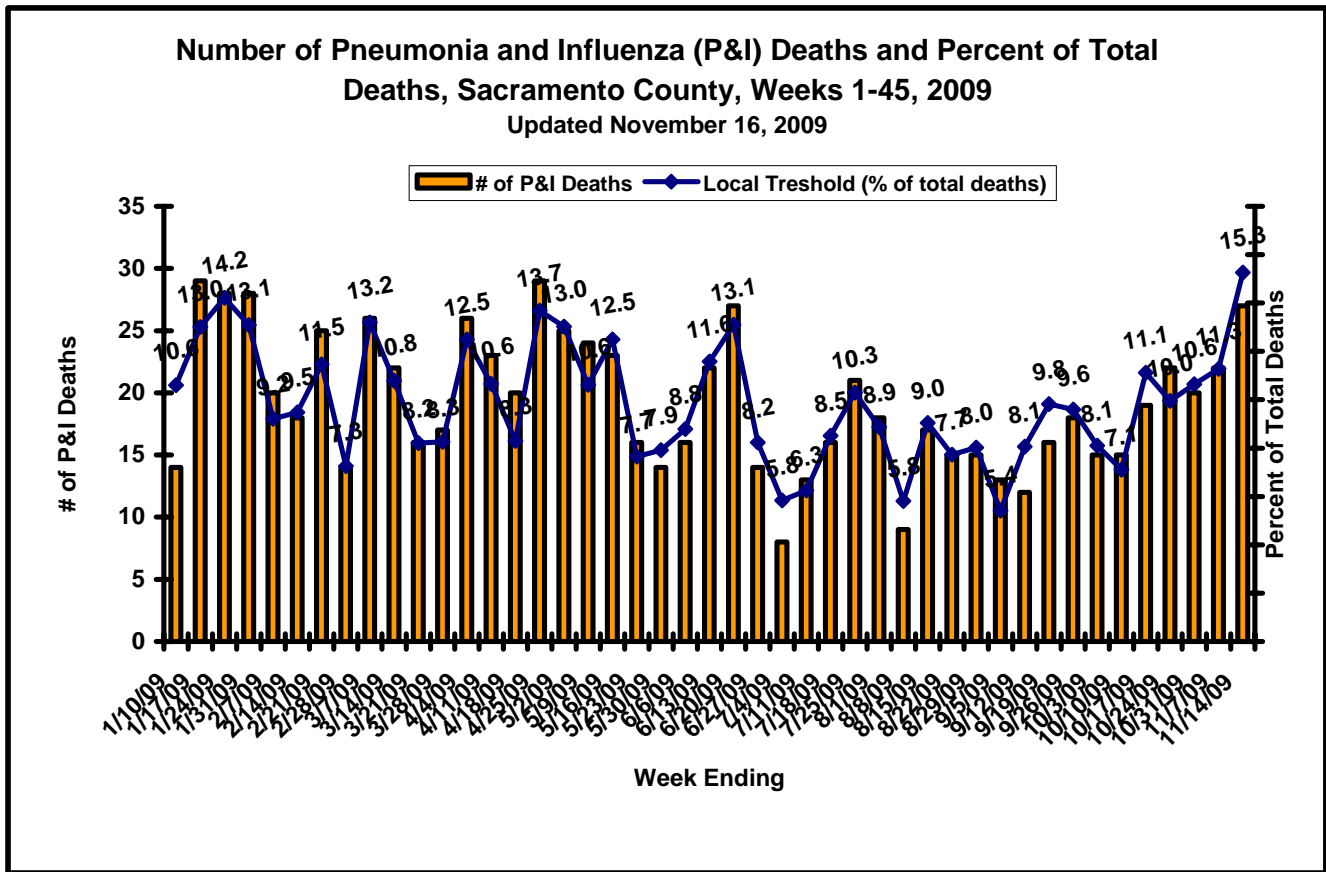
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Median	Range	No. of Schools Reporting >10% Absenteeism	No. Schools Reporting	Week Ending
2.0%	0.1%-9.0%	N/A	131	9/12/2009
1.6%	0.2%-5.8%	0	100	9/19/2009
1.8%	0.0% - 9.5%	0	125	9/26/2009
1.8%	0.0% - 6.1%	0	119	10/03/2009
2.6%	0.0% - 12.2%	2	157	10/10/2009
2.9%	0.3% - 14.6%	4	207	10/17/2009
2.9%	0.5%-36.2%	13	161	10/24/2009
2.5%	0.4%-37.0%	11	197	10/31/2009
2.7%	0.3%-40.9%	13	184	11/07/2009
2.5%	0.4% - 41.5%	14	203	11/14/2009

*A school can file a waiver to recoup the average daily attendance (ADA) loss from an occurrence such as an epidemic (Education Code Section 46392[a] [4]).

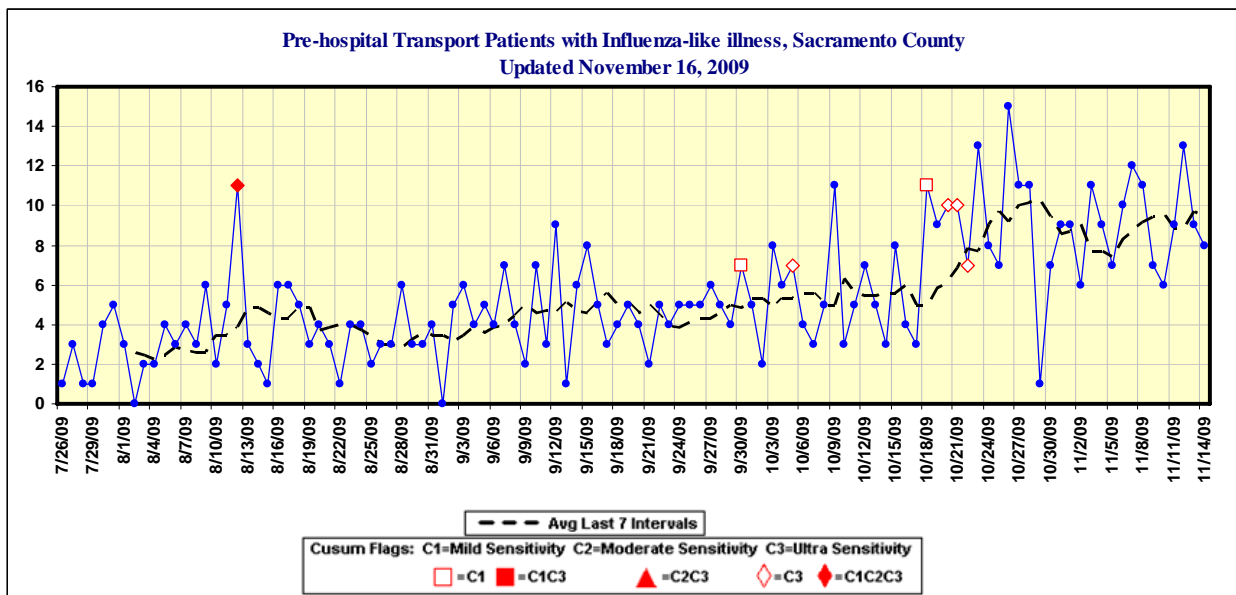
Weekly Pneumonia and Influenza Deaths:

During week 45, 15.3% of all deaths were attributed to pneumonia or influenza. At the national level the percent of all deaths attributable to pneumonia and influenza have not been reported yet. During week 44, 11.3% of Sacramento County deaths were attributed to pneumonia or influenza. The national epidemic threshold during week 44 was 7.8% for that week. During the peak of flu season, the national epidemic threshold typically ranges from 7.5 – 8.0%. The average epidemic threshold for the current year in Sacramento County is 9.9%.



Weekly Counts: Pre-hospital Transport Patients with Influenza Like-Illness

The graph below shows the daily counts of pre-hospital transport patients with influenza-like illness from the Sacramento Fire Department and Sacramento Metropolitan Fire Department. Together both agencies account for approximately 90% of all fire calls in Sacramento County. To date we have seen significant increase in influenza like-illness pre-hospital transport of patients during the month of October. We used CuSum statistical methods to indicate recent changes or deviations in data counts by comparing daily counts to a 7-day moving average. From July 26, 2009 to November 14, 2009 CuSum methods detected increases in influenza-like illness activity among pre-hospital transports on 7 days, 5 of which occurred during the month of October. From the graph below using the most sensitive CuSum method a strong statistically significant increase in transportation activity was detected on 8/12/2009 (n=11), 10/5/2009 (n=5), 10/20/2009 (n=10), 10/21/2009 (n=10) and 10/22/09 (n=7). The day with the highest number of pre-hospital patient transports with influenza like illness occurred on 10/26/2009 (n=15).



*Data above generated using the Centers for Disease Control and Prevention Early Aberration Reporting System (EARS).