



INFLUENZA WATCH LOS ANGELES COUNTY

Los Angeles County (LAC) The total number of positive flu tests decreased in week 3 (Figure 1). While we would normally expect flu activity to be steadily increasing during this time of year, the % of flu tests that tested positive continues its downward trend and is well below 2007-08 and 2008-09 levels (Figure 1). RSV activity is lower compared to last season but continues to increase as expected (Figure 2). The percent of emergency department visits due to ILI increased slightly in week 3 but remains lower than previous years (Figure 3).

Table 1: Surveillance System Overview

SURVEILLANCE SYSTEM*	Week 3	2009-10 YTD
Percent Positive Influenza Tests [±]	1.1	15.1
Percent Positive RSV Tests [‡]	25.0	3.4
Percent Flu A / Flu B [±]	85.7 / 14.3	99.6 / 0.4
Severe Pediatric Influenza Cases [†]	1 (0)	100 (9)
Respiratory Outbreaks	0	361
Influenza Deaths	0	87

*See <http://lapublichealth.org/acd/flu.htm> for a description of surveillance methods. 2009-2010 surveillance started on 8/30/09 (week 35) and ends May 22, 2010 (week 20)

± Sentinel sites (9 participating facilities in week 3)

‡ Sentinel sites (4 participating facilities in week 3)

†The number of deaths is indicated by the parenthesis.

California During week 3 (Jan17-23), influenza activity in California remained **sporadic**.

<http://www.cdph.ca.gov/PROGRAMS/VRDL/Pages/CaliforniaInfluenzaSurveillanceProject.aspx>

United States Flu activity remained the same in the US during week 3 (Jan 17-23) in which no states reported widespread activity, 5 states reported regional activity, 9 states reported local activity, 33 states reported sporadic activity, and 3 states reported no activity. All subtyped flu A viruses reported to CDC in week 3 were pandemic H1N1 (pH1N1) viruses.

www.cdc.gov/flu/weekly

Figure 1: Total Positive Flu and % Positive Flu by Week

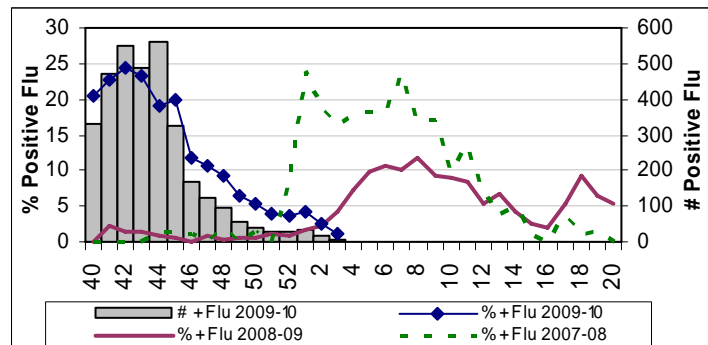


Figure 2: Total Positive RSV and % Positive RSV by Week

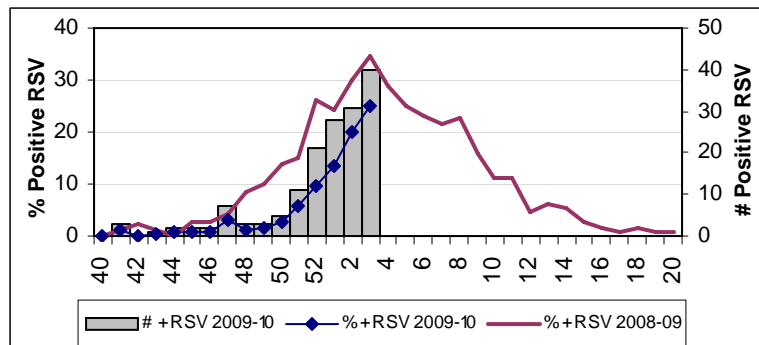
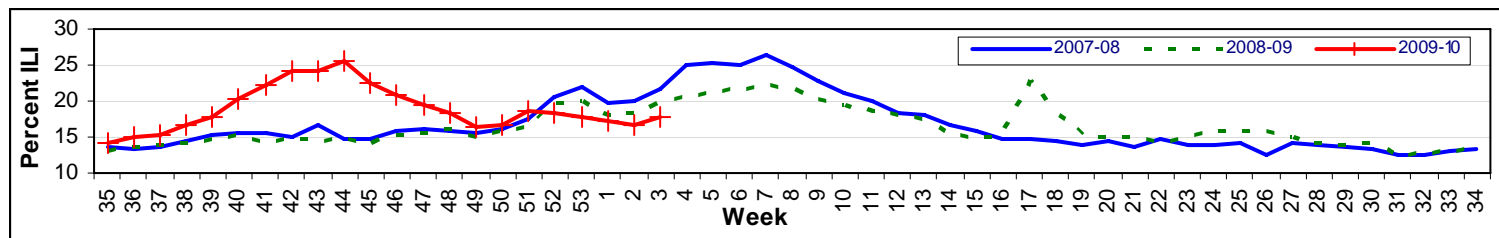


Figure 3: Percent of Emergency Department Visits for Influenza-Like Illness by Week, All Ages



In the News An article published in *Lancet* on Jan 10 discusses the results of a serological study of the incidence of pH1N1 infection in England. In the study, 1,403 samples collected in 2008 (prior to the first wave of the pandemic) were compared to 1,954 samples taken in August and September of 2009 (after the first wave). The proportion of the samples from 2008 with pre-existing antibodies increased with age. The difference in the proportion of samples with antibodies between baseline (2008) and Aug/Sep of 2009 was substantial for persons <24 years old, but no difference was observed for older age groups. Pre-existing antibodies may have provided protection against infection in older age groups. The authors of the study estimate that, in areas of high incidence, 1 child in every 3 was infected with pH1N1 during the first wave. This is 10 times higher than previous estimates based on clinical surveillance and stresses the importance of vaccinating children to help prevent the spread of pH1N1.

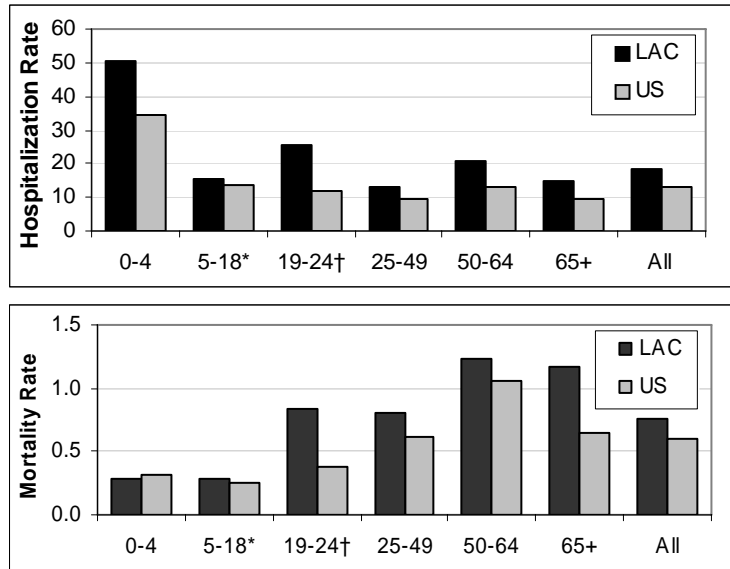
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Analysis of Influenza Cases in Los Angeles County (LAC)

Figure 4: Influenza Hospitalization and Mortality Rates, Aggregate Reporting 08/30/09-01/16/10



Laboratory-confirmed influenza hospitalization and mortality rates calculated from aggregate data were higher in Los Angeles County compared to the United States as a whole among all age groups except among children aged 0-4 years in which the mortality rate for LAC was lower than that found nationally (Figure 4). Both locally and nationally, the highest hospitalization rate occurred among children aged 0-4 years. Yet, this same age group had one of the lowest mortality rates. Adults aged 50-64 years had the highest mortality rate both in LAC and in the US as a whole. Please note, however, that the difference between LAC and US rates may be due to differences in completeness of reporting as well differences in underlying population distributions.

Since the beginning of the pandemic in April, 2009 there have been 352 ICU admissions and 133 deaths due to confirmed pH1N1 in Los Angeles County according to individual case reporting. Of the 133 deaths, 116 had been admitted to the ICU. The number of ICU admissions and deaths remains low during this time of year (Figure 5).

*Denominator data for LAC includes persons 5-19 years of age. Thus the rate for this age group will be an underestimate for LAC.
 †Denominator data for LAC includes persons 20-24 years of age. Thus the rate for this group will be an overestimate for LAC.

The number of hospitalizations due to *any* influenza as well as the rate (per 1,000 hospital beds) of laboratory-confirmed influenza decreased in week 3 (Figure 6).

Figure 5: Number of Pandemic H1N1 Cases by Week of Onset as of January 27, 2010, Individual Case Reporting

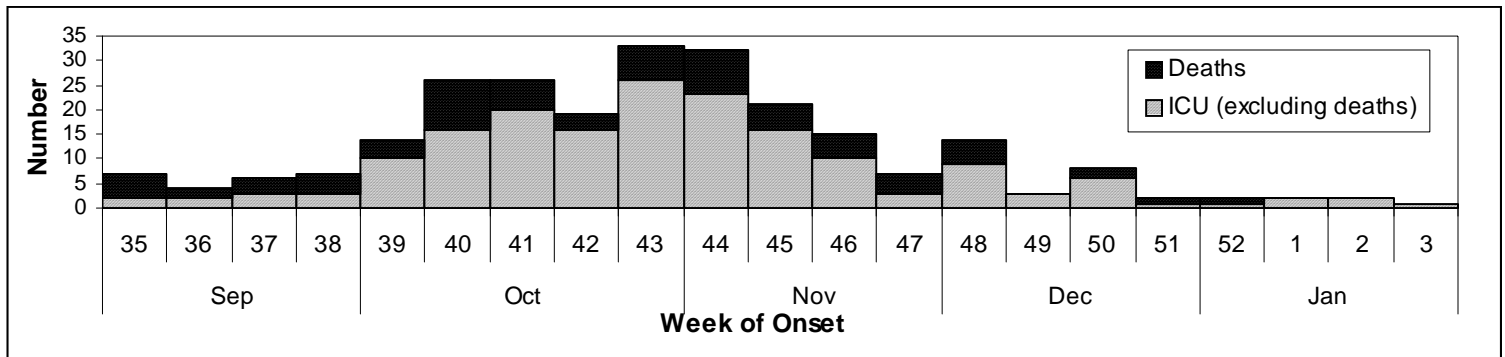


Figure 6: Number and Rate of Hospitalized Influenza (Any Influenza) Cases, Aggregate Reporting

