



INFLUENZA WATCH LOS ANGELES COUNTY

Los Angeles County (LAC): Seasonal Surveillance RSV continued to decrease during weeks 15-18 (April 19-May 9). One additional severe pediatric influenza case occurred in week 17 for a total of 9 children who were admitted to the ICU with flu this season. This case tested positive for novel H1N1. Twelve respiratory outbreaks occurred in schools during weeks 15-18, 3 of which were confirmed H1N1, 2 probable novel H1N1, 2 influenza B, 1 seasonal influenza A H1N1, 2 negative for influenza, and 2 pending lab results. Please see below for more information regarding swine flu surveillance in LAC.

Surveillance System Overview

SURVEILLANCE SYSTEM*	Week 18	2008-2009 YTD
Percent Positive Influenza Tests [±]	9.2	5.3
Percent Positive RSV Tests [†]	1.6	15.4
Percent Flu A / Flu B [±]	53 / 47	73 / 27
Severe Pediatric Influenza Cases [‡]	0	9 (0)
Respiratory Outbreaks	0	19
Influenza Vaccines Administered (PH)	--	62,652

*See <http://lapublichealth.org/acd/flu.htm> for a description of surveillance methods.

± Sentinel sites (8 participating facilities).

‡ Sentinel sites (4 participating facilities).

†The number of deaths is indicated by the parenthesis.

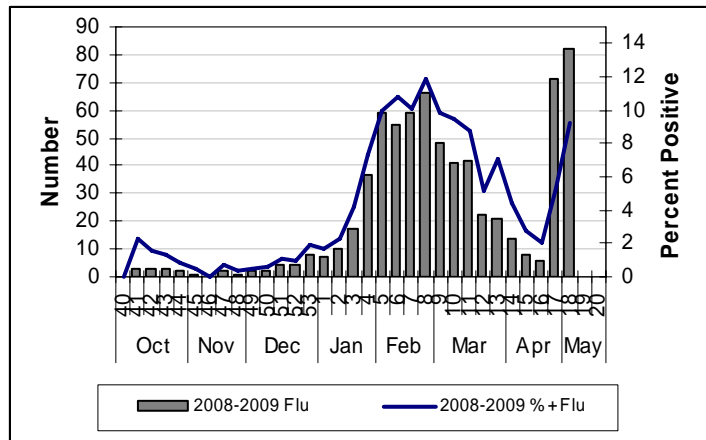
California Influenza activity in California was upgraded to **widespread** in week 17 (April 26-May 2) due an increase in lab reports of influenza A throughout the state.

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

United States Influenza activity increased across the United States. The CDC reports that as of May 13th, 45 states including the District of Columbia reported 3,352 confirmed cases of H1N1 influenza and 3 deaths due to H1N1.

<http://www.cdc.gov/h1n1flu>

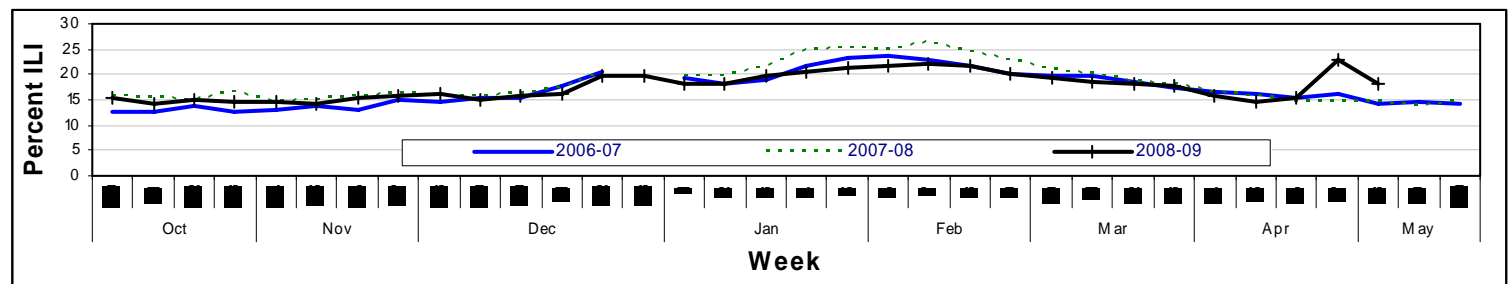
Figure 1: Total Positive Flu and % Positive Flu by Week



Influenza data represent testing completed in nine facilities.

LAC: Novel H1N1 Surveillance The number of positive influenza tests increased dramatically in weeks 17-18 (April 26-May 9). This is due partly to a large increase in the overall number of tests performed. Week 17 saw 2.25 times the number of tests performed relative to week 5 in which the total number of tests had previously peaked. Typically during flu season the percentage of tests that are positive for influenza is low in the beginning and end of the season, when the prevalence of influenza is low, and higher in the middle of the season when the prevalence of influenza is higher. The increase in percent positive during week 17 (Figure 1) suggests that the increase in positive tests was not solely due to increased testing but also a result of a true increase in the prevalence of influenza in LAC. Figure 2 shows a marked increase in the percent of ED visits for ILI. This increase likely reflects a worried well effect as well as an increase in true disease. See page 2 for more details.

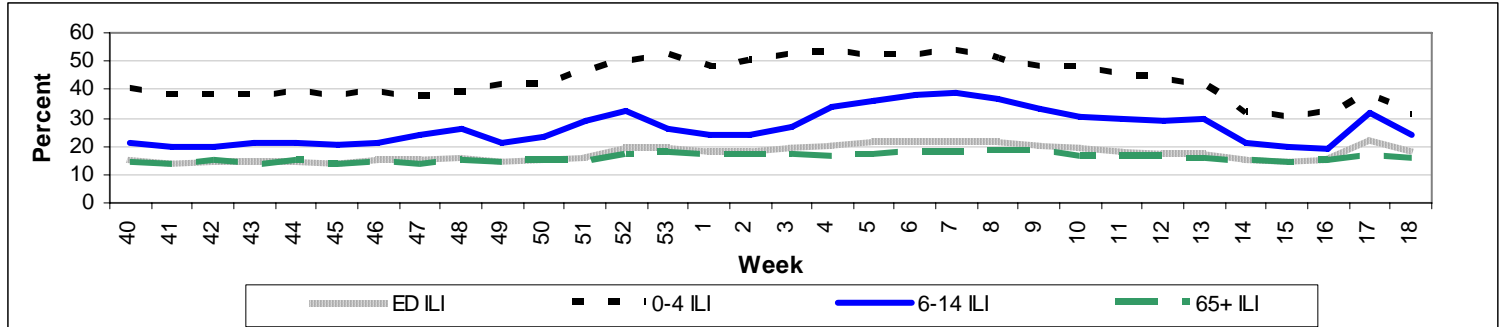
Figure 2: Percent of ED Visits for ILI by Week





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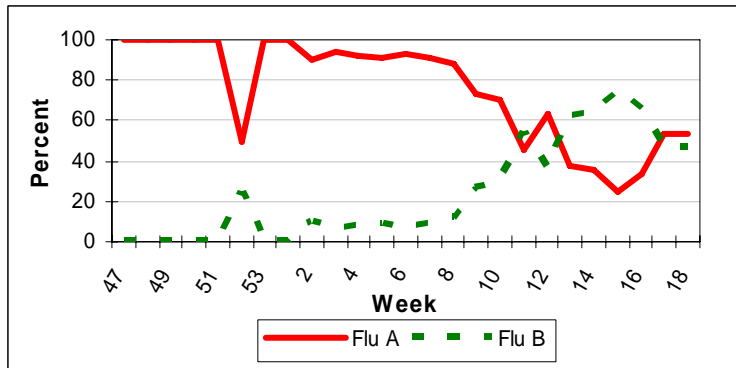
Figure 3: Percent of ED Visits for ILI by Age by Week



ILI Surveillance:

Further analysis of ILI surveillance data shows that the increase in ED visits for ILI during week 17 (April 26-May 2) occurred mainly among children (Figure 3). The largest increase occurred in children aged 6-14 years. Consistent with national data which show that less than 2% of confirmed H1N1 cases 60 years of age or older, LAC ILI surveillance shows a negligible increase in ED Visits for ILI among those aged 65 years and older. It is unclear whether or not this is a result of a true biological phenomenon or a result of selection bias whereby ill children were more likely to be brought to the ER by concerned parents.

Figure 4: Positive Tests, Percent Flu A vs. Percent Flu B



Influenza data represent testing completed in nine facilities.

Thermometer Sales:

Thermometer sales increased dramatically during week 17 (April 26-May 2). During this week, the number of thermometer sales was 1.5 times that of week 7 (February 15-February 21) when thermometer sales was originally at its peak (Figure 5). The increases in thermometer sales coincides with the rise in ED ILI and seems to parallel ED ILI throughout influenza season. Thermometer sales could prove to be an important surveillance tool to signal increased disease in the community and to prepare hospitals for a higher volume of ED visits and possible hospital admissions.

Influenza A vs. B:

Typically, influenza A is the predominant virus during the beginning and middle of flu season. Towards the end of the season, as influenza A begins to decline, influenza B tends to increase. This trend is illustrated in Figure 4 through week 16 (April 26-May 2). However, with the introduction of novel influenza A H1N1 virus during week 17 (May 3-May 9), the percent of all positive tests that were influenza A began to increase while the percent of positive tests that were influenza B began to decrease.

Figure 5: Thermometer Sales and ED ILI

