



INFLUENZA WATCH LOS ANGELES COUNTY

Los Angeles County (LAC) The total number of positive influenza tests as well as the percent of influenza tests that tested positive increased in week 37 (Figure 1). Two severe pediatric flu cases occurred during week 37. Nine new ILI (influenza-like illness) outbreaks (eight in elementary schools and one in a juvenile detention center) were reported during week 37. The percent of emergency department visits due to ILI is slightly higher compared to the same time in previous years (Figure 2).

Surveillance System Overview

SURVEILLANCE SYSTEM*	Week 37	2009-2010 YTD
Percent Positive Influenza Tests [±]	16.4	13.1
Percent Positive RSV Tests [‡]	0.0	0.4
Percent Flu A / Flu B [‡]	100 / 0	99.7 / 0.3
Severe Pediatric Influenza Cases [†]	2 (0)	7 (2)
Respiratory Outbreaks	9	18

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

± Sentinel sites (7 participating facilities in week 37)

‡ Sentinel sites (3 participating facilities in week 37)

†The number of deaths is indicated by the parenthesis.

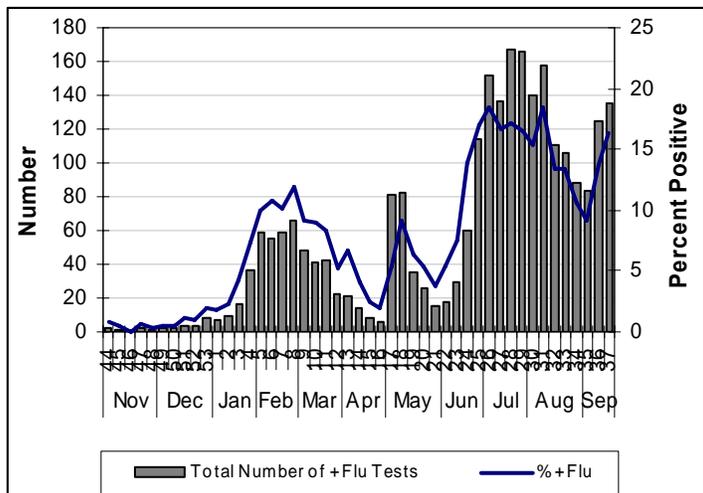
California During week 36 (September 6-September 12), influenza activity in California remained **regional**.

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

United States Influenza activity increased across the United States during week 36 (September 6-September 12). In week 36, 21 states reported widespread activity, 9 states reported regional activity, 11 states reported local activity, 8 states reported sporadic activity, and 1 state reported no activity. Approximately 99% of all subtyped influenza A viruses being reported to CDC in week 36 were novel influenza A (H1N1) viruses. <http://www.cdc.gov/flu/weekly>

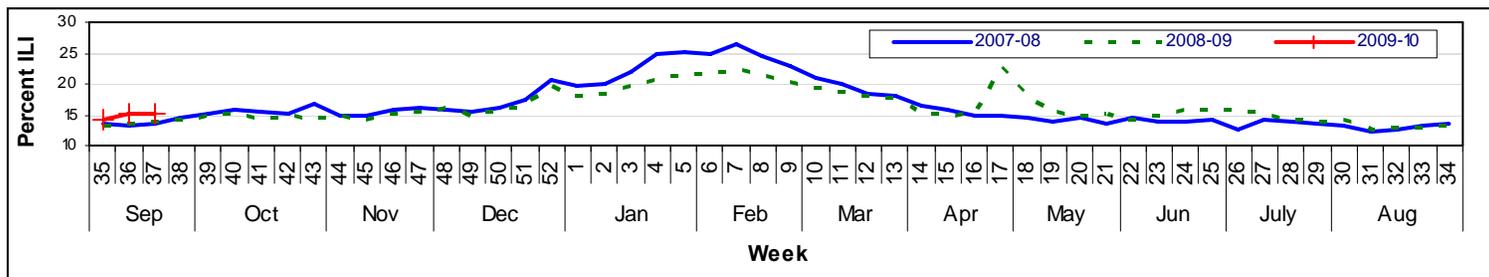
In the News In an MMWR dated September 25, 2009, the CDC discusses the performance of rapid diagnostic tests in two pandemic H1N1 outbreak investigations in Greenwich, CT that occurred in May of this year. Compared to real-time reverse transcriptase polymerase chain reaction (rRT-PCR), the sensitivity of the rapid influenza diagnostic test (RIDT) for detecting H1N1 was 47% while the specificity was 86%. Sensitivity and specificity did not seem to depend on the presence or absence of symptoms of influenza-like illness nor the length of time between illness onset and specimen collection. Of all the cases that tested positive for H1N1 by RIDT, 92% were confirmed by rRT-PCR to have H1N1 (positive predictive value). However, of all the cases that tested negative by RIDT only 32% were confirmed to be negative for H1N1 by rRT-PCR (negative predictive value). These findings reinforce CDC recommendations against using negative RIDT results for management of patients with possible H1N1 infection. <http://www.cdc.gov/mmwr/PDF/wk/mm5837.pdf>

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



*Influenza data represent testing completed in nine facilities except for weeks 36 and 37 when influenza data represent testing completed in 8 and 7 facilities respectively.

Figure 2: Percent of ED Visits for ILI by Week

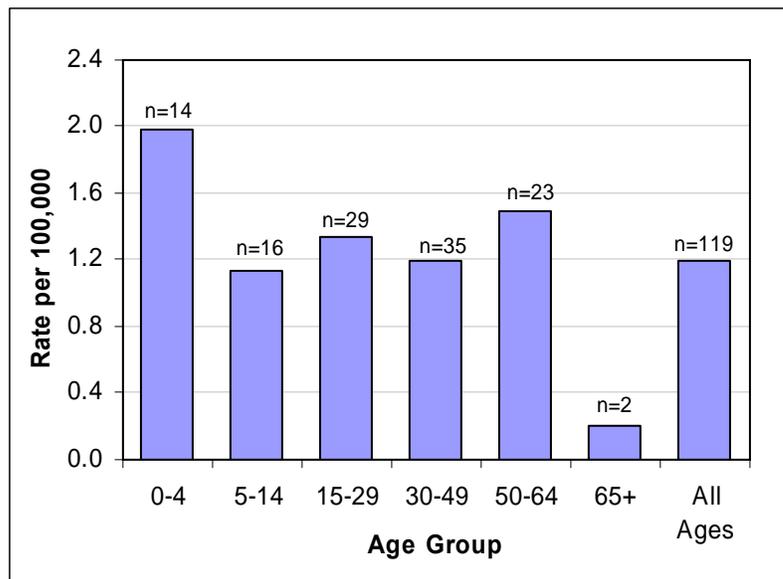




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Breakdown of Influenza Cases in Los Angeles County

Figure 3: Rate per 100,000 of H1N1 ICU/Deaths by Age Group



As of September 24, 2009 there have been 119 ICU/deaths due to confirmed pandemic influenza A type H1N1. Of these cases, 53 have been deaths. The highest rate (per 100,000 population) of ICU admission/death has occurred in persons 0-4 years of age (Figure 3). However, when we look at deaths alone, this age group has the lowest rate of death due to H1N1 with the exception of those aged 65 years and older. Of the 53 deaths due to H1N1, 81% had a past medical history. The most frequently cited underlying medical condition for children (<18 years) who died due to H1N1 was developmental delay followed by some kind of pulmonary condition. The most oft cited underlying medical condition for adult H1N1 deaths was obesity followed by metabolic disorder such as diabetes (Figure 4). Since aggregate reporting began in week 32 (August 9 - August 15), the rate of hospitalized cases due to any influenza remained relatively stable until week 37 (9/13-9/19) when an increase in the rate is noted (Figure 5). For more information on testing, treating, and preventing influenza in Los Angeles County go to: <http://publichealth.lacounty.gov/acd/h1n1.htm>.

Figure 4: Percentage* of H1N1 Deaths with Specific Underlying Medical Conditions as of September 24, 2009

Age	Cardiac	Pulmonary	Metabolic Disorder	Developmental Delay	Immuno-suppression	Pregnancy	Obesity	Obesity Only**	No Past Med Hx
<18 (n=10)	20%	50%	10%	80%	40%	0%	17%	0%	10%
≥ 18 (n=43)	30%	26%	35%	12%	16%	5%	68%	9%	21%
Total (n=53)	28%	30%	30%	21%	21%	4%	59%	8%	19%

*As many cases had multiple underlying medical conditions, percentages will total over 100%.

**Percentage of deaths that had obesity as the only underlying medical condition.

Figure 5: Hospitalized Influenza (Any Influenza) Cases through September 19, 2009, Aggregate Reporting

Week	Hospitals reporting	% of hospitals reporting*	Total hospitalized influenza cases	Rate** of lab confirmed influenza hospitalizations
8/9-8/15	63	67.02	29	2.51
8/16-8/22	69	73.4	23	1.75
8/23-8/29	66	70.22	30	2.50
8/30-9/5	62	65.96	30	2.75
9/6-9/12	58	61.7	18	1.96
9/13-9/19	62	65.96	44	4.15

*There are 94 acute care hospitals in Los Angeles County.

**Rate is per 100,000 hospital beds per reporting hospital.