



INFLUENZA WATCH LOS ANGELES COUNTY

Los Angeles County (LAC) The total number of positive flu tests as well as the percent of flu tests that tested positive increased in week 41 (Figure 1). Seven severe pediatric flu cases occurred during week 41. Thirty-seven new ILI (influenza-like illness) outbreaks (34 in elementary schools, 1 in a high school, 1 in a juvenile detention center, and 1 in a nursing home) were reported during week 39. The percent of emergency department visits due to ILI continues to increase and is substantially higher relative to the same time in previous years (Figure 2), especially in those 5-14 years old (Figure 3).

Surveillance System Overview

SURVEILLANCE SYSTEM*	Week 41	2009-2010 YTD
Percent Positive Influenza Tests [±]	24.2	17.4
Percent Positive RSV Tests [‡]	2.5	0.3
Percent Flu A / Flu B [±]	100 / 0	99.6 / 0.4
Severe Pediatric Influenza Cases [†]	7 (0)	23 (3)
Respiratory Outbreaks	37	119

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

± Sentinel sites (8 participating facilities in week 41)

‡ Sentinel sites (3 participating facilities in week 41)

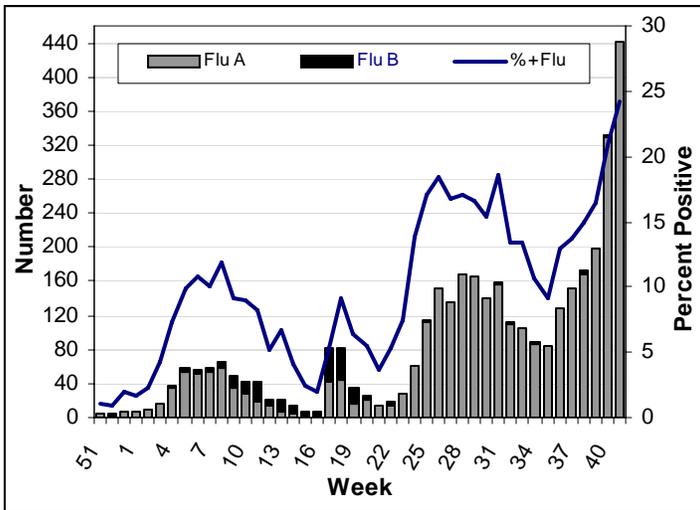
†The number of deaths is indicated by the parenthesis.

California During week 41 (October 11-October 17), influenza activity in California remained **widespread**.

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

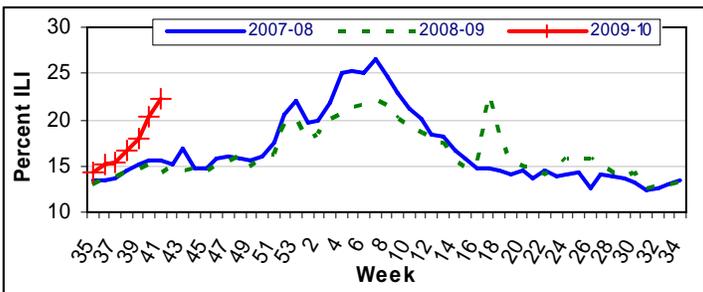
United States Influenza activity remained elevated across the United States during week 40 (October 4-October 10). In week 40, 41 states reported widespread activity, 8 states reported regional activity, and 1 state reported local activity. All subtyped influenza A viruses being reported to CDC in week 40 were novel influenza A (H1N1) viruses. <http://www.cdc.gov/flu/weekly>

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



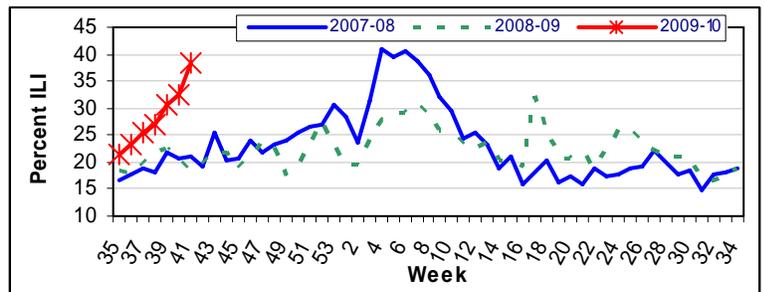
*Influenza data represent testing completed in nine facilities except for weeks 39 and 41

Figure 2: Percent of ED Visits for ILI by Week, All Ages



In the News A study published on October 20 in the American Journal of Preventive Medicine describes the epidemiology of a novel H1N1 outbreak at the U.S. Air Force Academy that occurred from June 26-July 24. Case counts peaked two days after a social event on July 4th. The incidence proportion among the basic training cadets was 11% with cases reporting cough, chills, sore throat, and headache, and fatigue most frequently. The mean duration of symptoms was 5.6 days. Disease severity was mild to moderate, and no hospitalizations or deaths due to H1N1 were reported in this healthy population. The duration of symptoms for cadets who were treated with oseltamivir did not differ in length from those who were not treated with the medicine. In addition, the study found that 24% of samples obtained 7 days from illness onset contained viable virus. http://www.ajpm-online.net/webfiles/images/journals/amepre/AJPM_Witkop.pdf

Figure 3: Percent of ED Visits for ILI by Week, 5-14 Years

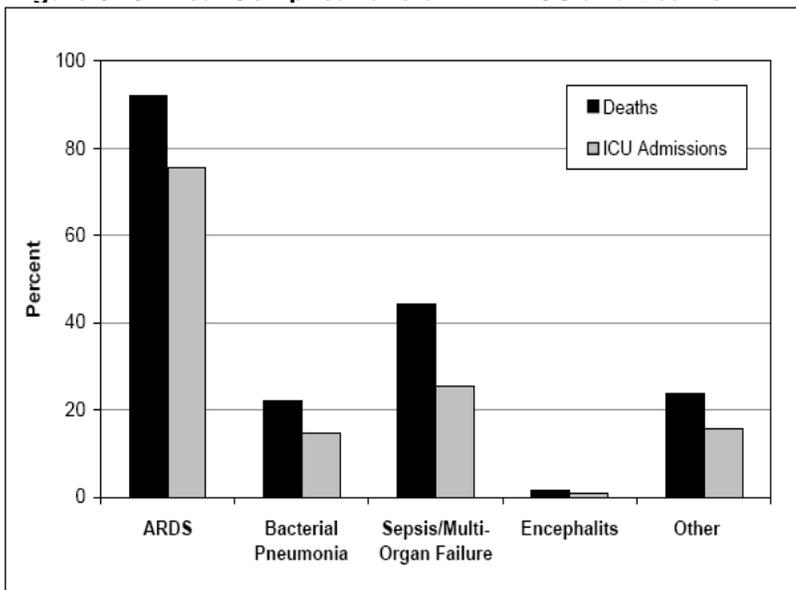




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Breakdown of Influenza Cases in Los Angeles County

Figure 3: Clinical Complications of H1N1 ICU and Deaths*



*As cases can have more than one complication, percentages will total more than 100%.

As of October 22, 2009 there have been 160 ICU/deaths due to confirmed pandemic influenza A type H1N1. Of these cases, 65 have been deaths. Since the beginning of the pandemic, 64% of hospitalized cases that were confirmed to have H1N1 via RT-PCR had a previous rapid test. Of these, 66% yielded a positive rapid test result while the remaining 34% yielded a negative result. The relatively low sensitivity of the rapid test underscores the need to treat based on clinical presentation and not solely on the result of a rapid test. The most frequently cited complication from H1N1 among ICU admissions and deaths is acute respiratory distress syndrome followed by sepsis/multi-organ failure and bacterial pneumonia (Figure 3). Over the past few weeks, the number of ICU/deaths seems to have increased slightly relative to August and September (Figure 4). Since aggregate reporting began in week 32 (August 9 - August 15), the rate of hospitalized cases due to any influenza has increased dramatically in the past two weeks (Table 1). For more information on testing, treating, and preventing influenza in Los Angeles County go to: <http://publichealth.lacounty.gov/acd/h1n1.htm>.

Figure 4: Number of Pandemic H1N1 by Week of Onset as of October 21, 2009 (Individual Case Reporting)

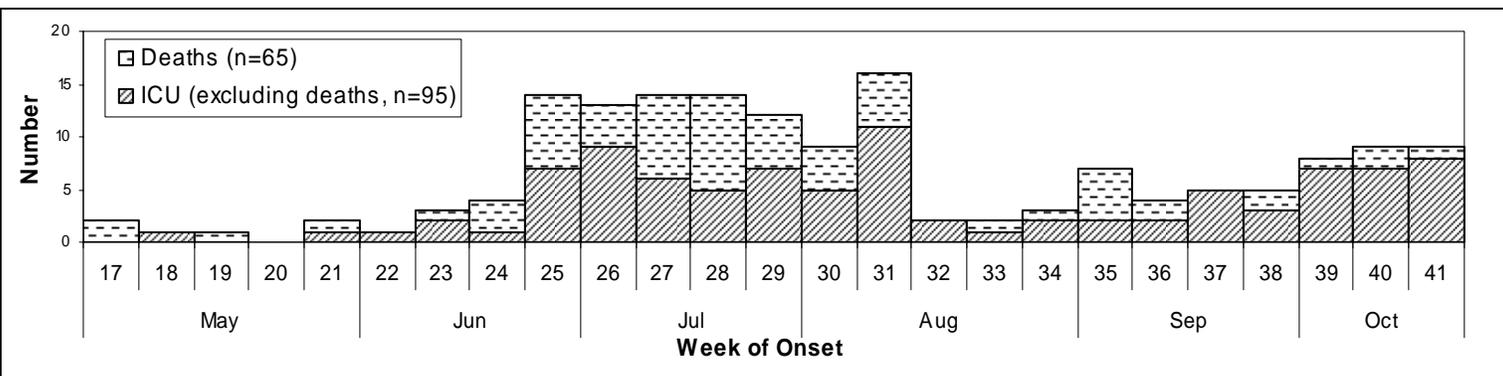


Table 1: Hospitalized Influenza (Any Influenza) Cases from Sep. 06 through Oct. 17, 2009, Aggregate Reporting

Week	Hospitals Reporting	% Hospitals Reporting*	Total Hospitalized Flu Cases	Rate of lab confirmed flu cases**
9/06 - 9/12	67	71.28	23	1.23
9/13 - 9/19	68	72.34	46	2.34
9/20 - 9/26	63	67.02	47	2.68
9/27 - 10/03	67	71.28	49	2.60
10/04 - 10/10	63	67.02	99	5.33
10/11 - 10/17	54	57.44	117	7.85

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

**Rate is per 1,000 hospital beds.