



# INFLUENZA WATCH LOS ANGELES COUNTY

**Los Angeles County (LAC)** The total number of positive flu tests remained low during weeks 10-11 (Mar 7 - Mar 20) (Figure 1). The % of flu tests that tested positive is also low and remains well below 2007-08 and 2008-09 levels (Figure 1). One of the 4 total positive flu tests reported during weeks 10 and 11 was influenza B. The % of RSV tests that was positive continues to decline from its peak in week 5 but remains higher than 2008-2009 levels (Figure 2). The % of emergency department visits due to ILI continued to decrease in weeks 10 and 11 and remains lower than previous years (Figure 3).

**Table 1: Surveillance System Overview**

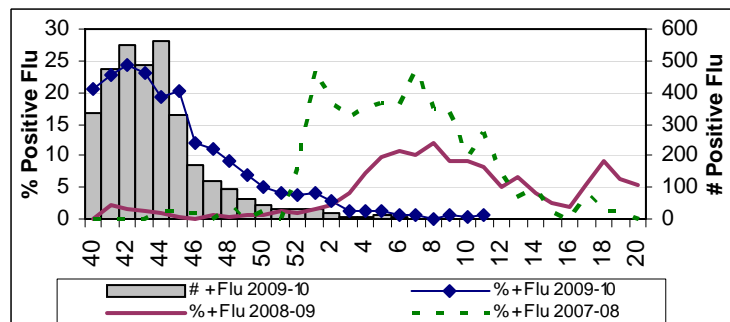
SURVEILLANCE SYSTEM*	Weeks 10-11	2009-10 YTD
Percent Positive Influenza Tests <sup>‡</sup>	0.4	12.7
Percent Positive RSV Tests <sup>‡</sup>	18.0	11.4
Percent Flu A / Flu B <sup>‡</sup>	75.0 / 25.0	99.4 / 0.6
Severe Pediatric Influenza Cases <sup>†</sup>	0 (0)	107 (9)
Respiratory Outbreaks	0	343
Influenza Deaths	1	107

\*See <http://lapublichealth.org/acd/flu.htm> for a description of surveillance methods. 2009-2010 surveillance began 8/30/09 (week 35) and ends 10/22/2010 (week 20)  
<sup>‡</sup> Sentinel sites (9 participating facilities in week 10, 7 in week 11)  
<sup>†</sup> Sentinel sites (4 participating facilities in weeks 10 and 11)  
<sup>†</sup> The number of deaths is indicated by the parenthesis.

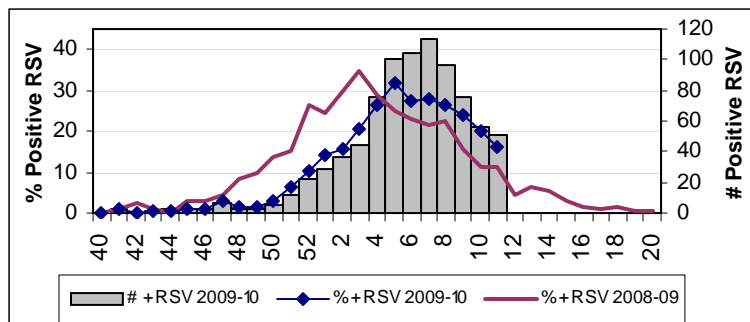
**California** During week 11 (Mar 14-Mar 20), influenza activity in California remained **sporadic**. <http://www.cdph.ca.gov/PROGRAMS/VRDL/PageCaliforniaInfluenzaSurveillanceProject.aspx>

**United States** Flu activity remained the same in the US during weeks 10 and 11. In week 11 (Mar 14-Mar 20) no states reported widespread activity, 3 states reported regional activity, 8 states reported local activity, 31 states reported sporadic activity, and 8 states reported no activity. Over 99% of subtyped flu A viruses reported to CDC in week 11 were pandemic H1N1 (pH1N1) viruses. [www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly)

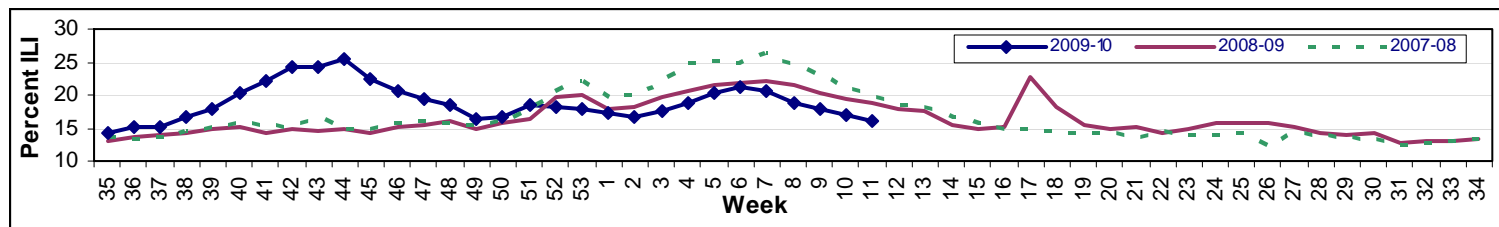
**Figure 1: Total Positive Flu and % Positive Flu by Week**



**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** A [study](#) published in *British Medical Journal* on March 18, 2010 describes the epidemiology of pH1N1 in 64 pregnant or postpartum (completion of pregnancy within past 28 days) women admitted to the ICU in Australia and New Zealand between June 1 and August 31, 2009. Pregnant or postpartum women were 7.4 times more likely to be admitted to the ICU than non-pregnant women of childbearing age (15-44 years). The risk for ICU admission among all women of childbearing age was highest in pregnant women with a gestation of 20 weeks or more. Compared to non-aboriginal pregnant/postpartum women, Australian Aboriginal or Torres Strait Islanders were 6.2 times more likely to be admitted to the ICU. Of the cases for which data was available, 39% were obese and 56% had a documented coexisting illness. Asthma was the most common coexisting illness occurring in 33% of cases. Seven (11%) women died. Of 60 births occurring after 20 weeks of gestation, four were stillbirths and 3 were infant deaths. Of the liveborn babies, 22 (39%) were preterm, 32 (57%) were admitted to a neonatal ICU, and 2 (4%) were positive for pH1N1. This study demonstrates that pregnancy is a risk factor for serious illness related to pH1N1 which can cause substantial maternal and neonatal morbidity and mortality.



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## Analysis of Influenza Cases in Los Angeles County (LAC)

**Table 2: Characteristics of Pregnant and Non-Pregnant Women\* Hospitalized with pH1N1, LAC, 04/23/2009-08/06/2009**

	Pregnant (n=24)	Not Pregnant (n=34)
Mean Age (years)	25.6	27.1
<b>Race</b>		
Asian	0 (0.0%)	2 (6.7%)
Black	2 (8.3%)	3 (10.0%)
Latino	19 (79.2%)	18 (60.0%)
White	1 (4.2)	6 (20.0%)
Other	2 (8.3)	1 (2.3%)
<b>Outcome</b>		
ICU	4 (16.7%)	12 (35.3%)
Deaths	2 (8.3%)	8 (23.5%)
<b>Underlying Medical Conditions</b>		
Cardiac	1 (4.3%)	5 (14.7%)
Pulmonary	2 (8.7%)	7 (20.6%)
Metabolic	1 (4.3%)	10 (29.4%)
Developmental	0 (0.0%)	3 (8.8%)
Immunosuppression	0 (0.0%)	4 (11.8%)
Obesity	7 (30.4%)	11 (32.4%)
Any condition	14 (60.9%)	24 (70.6%)
<b>Clinical Complications</b>		
ARDS	10 (41.7%)	15 (44.1%)
Bacterial Pneumonia	0 (0.0%)	3 (8.8%)
Sepsis/Multi-Organ Failure	1 (4.3%)	5 (14.7%)
Encephalitis	0 (0.0%)	1 (2.9%)
Myocarditis	0 (0.0%)	1 (2.9%)

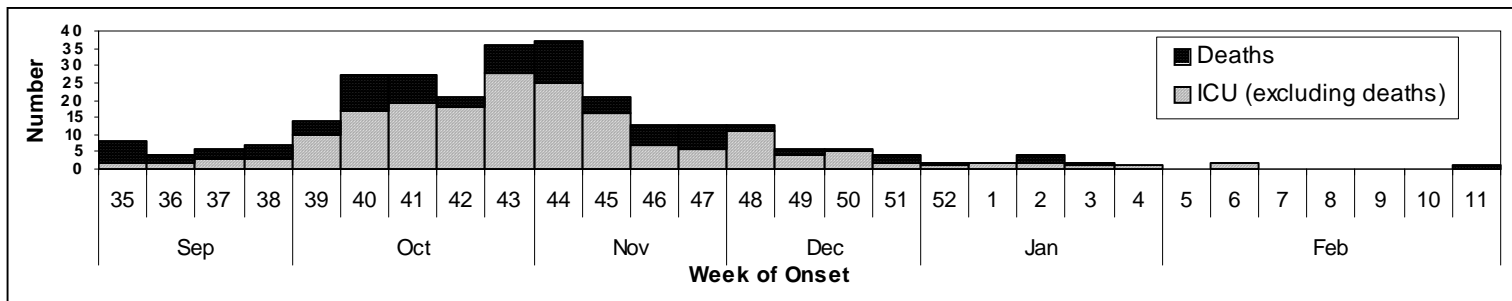
\*Includes only women of childbearing age (15-44 years)

Table 2 describes the demographics, outcome, underlying medical conditions, and clinical complications of hospitalized pH1N1 cases among pregnant and non-pregnant women of childbearing age (15-44 years). Pregnant women were more likely to be Latino and less likely to be white relative to non-pregnant women. Pregnant women were less likely to be admitted to the ICU and less likely to die from pH1N1. This may be partly explained by the higher prevalence of underlying medical conditions in the non-pregnant group. Approximately 71% of non-pregnant women compared to 61% of pregnant women had an underlying medical condition. Obesity was the most frequently cited underlying condition in both groups affecting about 30% of both pregnant and non-pregnant women. Acute respiratory distress syndrome (ARDS) was the most common clinical complication occurring in 41.7% of pregnant women and 44.1% of non-pregnant women. This data seems to indicate that, while pregnant women may have higher rates of hospitalization, once admitted to the hospital they have less severe outcomes than non-pregnant women. One explanation for this finding is the possibility that pregnant women are more readily admitted to the hospital or ICU once diagnosed with pH1N1 for close observation or that non-pregnant women are more likely to wait until illness is severe before presenting to the hospital.

Since the beginning of the pandemic in April, 2009 there have been 383 ICU admissions and 148 deaths due to confirmed pH1N1 in LAC according to individual case reporting. Of the 148 deaths, 134 (91.2%) had been admitted to the ICU. The number of pH1N1 ICU admissions and deaths remains low during this time of year (Figure 5).

Consistent with recent data featured in *Influenza Watch*, the number of hospitalizations due to any flu as well as the rate of lab-confirmed flu remained low in weeks 10-11 (Figure 6).

**Figure 4: Number of Pandemic H1N1 Cases by Week of Onset as of March 25, 2010, Individual Case Reporting**



**Figure 5: Number and Rate of Hospitalized Influenza (Any Influenza) Cases, Aggregate Reporting, 08/30/2009 - 03/20/2010**

