



Chicago Flu Update



City of Chicago

June 1, 2012

Chicago Department of Public Health

Rahm Emanuel, Mayor

[Previous Chicago Flu Updates](#)

Bechara Choucair, MD, Commissioner

Influenza Surveillance Summary, 2011-2012 Season

Influenza activity in Chicago for the 2011-2012 season peaked much later than previous seasons. Overall, the number of positive influenza specimens and the number of influenza-associated ICU hospitalizations reported to CDPH this season was lower compared to last season. All CDPH influenza surveillance indicators showed a shift in peak activity by at least one month. This report is a supplement to the *Chicago Flu Update* and provides a brief summary of influenza activity in Chicago for the past two influenza seasons.

In Chicago, influenza-associated hospitalizations have been mandated reportable conditions since 2009. A total of 63 influenza-associated ICU hospitalizations were reported for the 2011-2012 season. This is a 36% decrease from the previous season where 98 ICU hospitalizations were reported. The peak number of ICU hospitalizations were reported in mid-March, nearly a month later than the previous season where the peak number of ICU hospitalizations was reported in mid-February (Figure 1). ICU hospitalizations were reported for Chicagoans of all ages over the past two seasons. The highest proportion of cases in both seasons were reported in patients 50 years of age or older. In the 2010-2011 season, the median age was 48 years (range: 1 month-92 years), increasing to a median age of 56 years (range: 4 months-107 years) for the 2011-2012 season.

The proportion of ICU hospitalizations that were positive for influenza A decreased from 84% in 2010-2011 to 49% in 2011-2012. The number of ICU cases that tested positive for influenza B doubled from the previous season from 16 to 32 cases, 19 (59%) of which were 50 years of age or older.

The three underlying medical conditions most frequently reported for both seasons were chronic lung disease (including asthma), heart disease, and diabetes. The percentage of those requiring intubation decreased from 31% in 2010-2011 to 22% in 2011-2012. A total of seven deaths were reported among ICU hospitalizations this season, all were 50 years of age or older and 5 (71%) tested positive for influenza B. During the previous season, a total of eleven deaths were reported with 7 (64%) being 50 years of age or older and all (100%) were positive for influenza A. No deaths in children under 18 years of age were reported this season compared to the previous season, when 2 deaths were reported. The proportion of deaths among Hispanics and NH-blacks rose from 55% in 2010-2011 to 86% in 2011-2012. Hispanics and non-Hispanic blacks were the two racial/ethnic groups that saw an increase in the proportion of reported ICU hospitalizations from the previous season with non-Hispanic blacks continuing to account for the highest proportion of reported cases (Table 1).

Data on influenza virus test results are reported by

Figure 1. Number of influenza-associated intensive care unit hospitalizations reported for Chicago residents, for current season (2011-2012) and previous season (2010-2011), October-May.

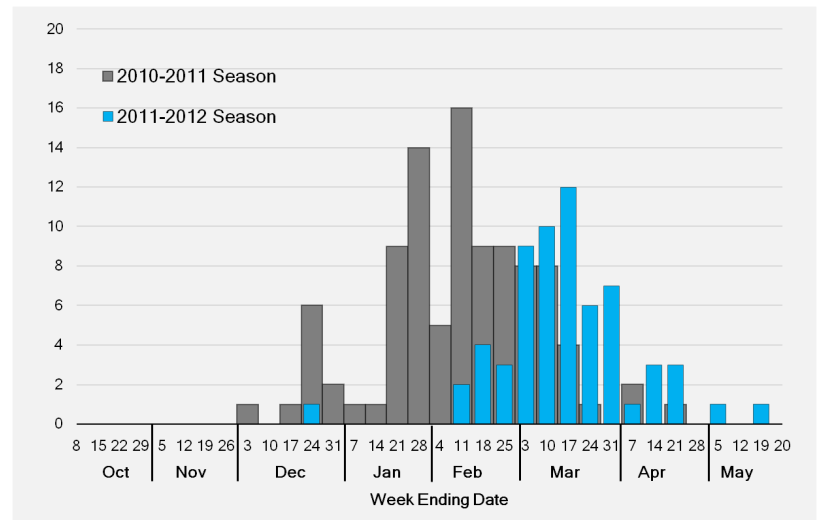


Table 1. Selected attributes of influenza-associated intensive care unit hospitalizations reported for Chicago residents for current season (2011-2012) and previous season (2010-2011), October-May¹.

Attribute	Influenza Season		Influenza Season	
	2010-2011	2011-2012	2010-2011	2011-2012
	No.	Percent	No.	Percent
Influenza Type (subtype)				
2009 A (H1N1)	29	30	11	18
A (H3N2)	16	16	4	6
A (unsubtyped)	37	38	16	25
B	16	16	32	51
Age (in years)				
0-4	14	14	12	19
5-18	12	12	6	10
19-24	3	3	1	2
25-49	21	22	7	11
50-64	28	29	16	25
65+	20	20	21	33
Race/Ethnicity				
NH-Black	37	38	26	41
NH-White	29	30	14	22
Hispanic	20	20	19	30
Asian	4	4	1	2
Other/Unknown	8	8	3	5

¹ Includes cases with specimen collection dates during October 9 2010-May 21, 2011 (2010-2011 season) and October 8, 2011-May 20, 2012 (2011-2012 season). Percents do not always add up to 100 due to rounding.

Chicago laboratories performing influenza subtyping. This season, the percentage of specimens testing positive for influenza peaked nearly two months later than the previous season. In 2010-2011, the peak reached 26% in late-January compared to this season where the peak reached 24% in mid-March (Figure 2). Although the peak percentages for both seasons were similar, the number of specimens that tested positive for influenza decreased by over one third from the previous season and those testing positive for influenza A decreased by over one half (Table 2). The total number of specimens that tested positive for influenza B increased by 30% from the previous season. Nationally, influenza A was the predominant influenza type circulating in the U.S., accounting for 86% of all positive specimens tested at collaborating laboratories with influenza A (H3) as the predominant subtype. However, in Chicago, among the local laboratories that reported influenza subtyping results, an equal percentage of specimens tested positive for both influenza A (50%) and influenza B (50%) with influenza A (H1N1) being the predominant subtype.

For the 2011-2012 influenza season, an average of 18 hospitals reported emergency department visits due to ILI (i.e., fever of 100°F or greater, with cough or sore throat) on a weekly basis to CDPH, with an average of 15,349 patients seen per week, similar to the 2010-2011 season. As with other surveillance indicators, emergency department ILI peaked later this season in mid-March with the peak level reached identical to last season's peak at 9.1% (Figure 3). Hospitals serving pediatric patients had a higher average weekly ILI percentage (20%) than those serving adults (2.8%) primarily.

The Influenza-like Illness Network (ILINet) is a national network of outpatient clinics reporting ILI to CDC on a weekly basis. For the 2011-2012 influenza season, an average of 33 Chicago clinics reported outpatient visits due to ILI on a weekly basis to CDC, with an average of 7,828 patients seen per week. This is an increase from last season where an average of 22 clinics reported to CDC with an average of 3,245 patients seen per week. Outpatient ILI also peaked in mid-March, but unlike emergency department ILI, the peak level reached (7.2%) was much higher than the previous season's peak (4.4%) which was reached in early-February and much higher than the national ILINet peak of 2.3%. Overall, for both emergency department and outpatient visits in Chicago, children 0-4 years of age accounted for the majority of ILI visits (at 51% and 54% of the total patient visits for the season, respectively).

The *Chicago Flu Update* will resume weekly reports in October 2012 when the 2012-2013 influenza surveillance season officially begins. Please contact Enrique Ramirez at 312-746-5911 (enrique.ramirez@cityofchicago.org) with questions on this report.

Figure 2. Percentage of specimens testing positive (by RT-PCR) for influenza reported by local laboratories serving Chicago hospitals, for the current season (2011-2012) and previous season (2010-2011), October-May.

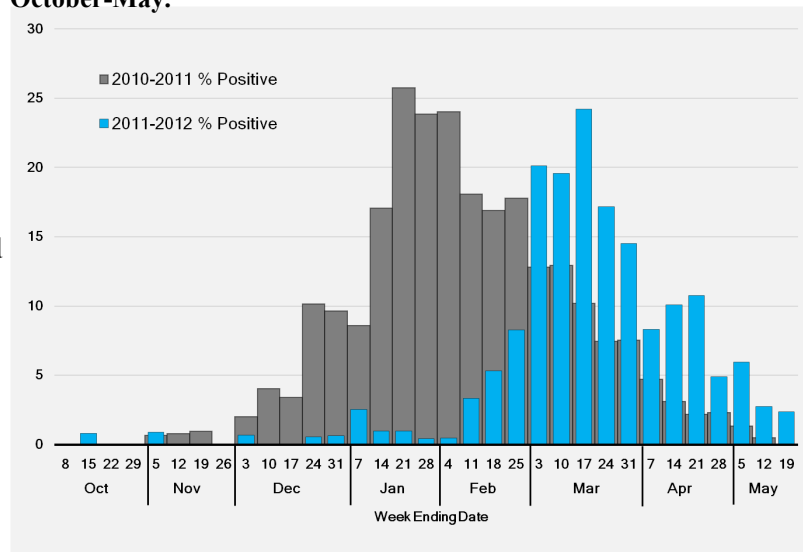
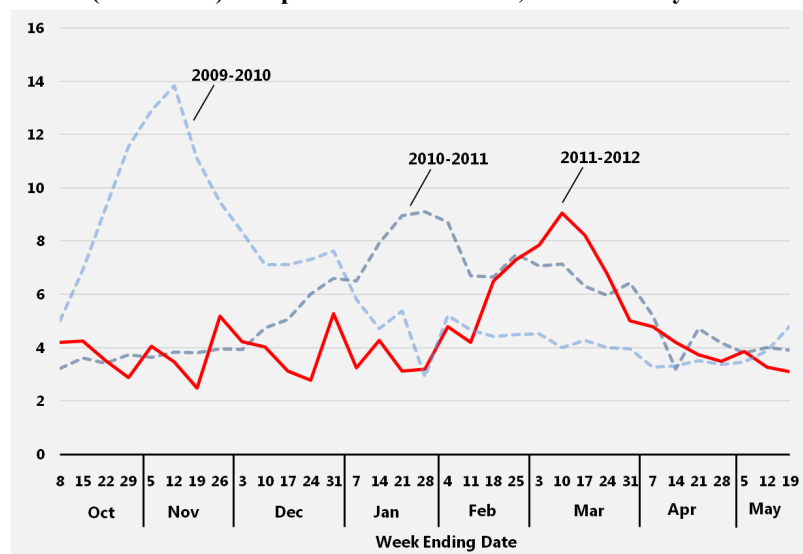


Table 2. Influenza testing results as reported by local laboratories serving Chicago hospitals, for the current season (2011-2012) and previous season (2010-2011) October-May.

Influenza Season	# Specimens Tested*	# Specimens Positive	# Positive Influenza A	# Positive Influenza B
2010-2011	6,758	678	513	165
2011-2012	6,490	450	229	215
% Change	-4%	-34%	-55%	+30%

*Five Chicago laboratories performing influenza subtyping that have consistently reported results for both seasons.

Figure 3. Weekly reported percent of emergency department visits attributed to influenza-like illness, Chicago, by week, for current season (2011-2012) and previous two seasons, October-May.



The 17th Annual Infection Control Conference

June 21, 2011

Registration information to follow soon!

Hosted by the Chicago Department of Public Health

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