2012 Influenza Surveillance Summer Summary Report

Maryland Department of Health and Mental Hygiene | Prevention and Health Promotion Administration
Office of Infectious Disease Epidemiology and Outbreak Response

Key Points

- Influenza activity in the Southern Hemisphere peaked in mid-July in Australia, early August in New Zealand, late August in South Africa, and mid-June in South America.
- Influenza type A (H3N2) Perth was the dominant strain of influenza the Southern Hemisphere, followed by type B (Wisconsin) influenza. Type A (H1N1) 2009 infections were reported below previous years' levels.
- The vaccine for the 2012-2013 influenza season in the Northern Hemisphere will include the following virus components:
    - Type A (H1N1) 2009
    - Type A (H3N2) Victoria, and
    - Type B (Wisconsin)

The H3N2 and type B components are different from the components in the 2011-12 vaccine

- A swine-origin (variant) strain of type A (H3N2) was detected in the United States during the summer and is strongly associated with swine exposure at agricultural fairs.

Southern Hemisphere Summary

The influenza season in the Southern Hemisphere begins toward the end of May and ends in the beginning of September. Australia saw the peak of influenza activity between the weeks ending July 14 and August 18. New Zealand's peak activity was between the weeks ending July 28 and August 11. Type A (H3N2) influenza was the predominant strain in both Australia and New Zealand, with type B influenza closely behind. There was very little type A (H1N1) pandemic strain influenza.

In South Africa, the peak of influenza activity occurred during the weeks ending on August 18 and September 1. Like in Australia and New Zealand, the predominant strain in South Africa was type A (H3N2) influenza.

In Argentina, and other South American countries, influenza activity peaked between the weeks ending June 16 and July 7. Type A (H3N2) influenza was also predominant in South America, with type B also following close behind.

Northern Hemisphere Summary

Influenza activity in the Northern Hemisphere during the summer included clusters of type A (H3N2v) influenza, a variant of the seasonal H3N2 strain. Persons who contracted this variant strain were associated with visits or exposure to swine at agricultural fairs. While most of the confirmed cases of H3N2v were children, the only confirmed death occurred in an older adult with preexisting health conditions. Read more about H3N2v by clicking here.

In Europe, influenza activity was also minimal, with most of the positive specimens being positive for type B influenza followed closely by type A (H3N2). The highest levels of influenza activity in Europe were reported from the Russian Federation and Eastern Europe, although these levels were below epidemic levels.

Maryland Summer 2012 Summary

Like in the rest of the United States, influenza activity in Maryland was minimal during the summer. A cluster of 12 confirmed cases of type A (H3N2v) influenza was detected. As observed in the Southern Hemisphere, type A (H3N2) and type B influenza were predominant in Maryland, although not at epidemic levels. Except for the H3N2v cluster, no outbreaks of influenza were reported to DHMH during the summer.

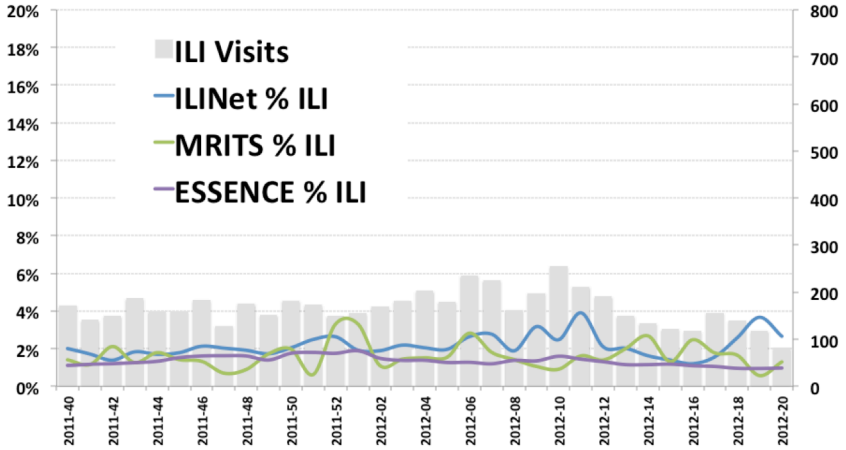
Results from PCR testing at DHMH State Laboratories Administration – May 20 to August 31, 2012		Number	Percent
Positive	Type A (H3N2) – Seasonal	18	11%
	Type A (H1N1) 2009	1	<1%
	Type B	16	9%
	Type A (H3N2v)	12	7%
Negative		124	73%
Total		171	100%

2011-2012 Season Summary

Compared to previous influenza seasons, the 2011-2012 influenza season was mild. The peak of influenza activity occurred between the middle of February and the end of March. The number of hospitalizations reported to DHMH was lower than previous years, as was the number of influenza-associated outbreaks. No pediatric deaths associated with influenza were reported. Only about 25% of specimens tested at the DHMH State Laboratories Administration were positive, with most of the positives being type A (H3N2) influenza.

Results from PCR testing at DHMH State Laboratories Administration – 2012-13 Season		Number	Percent
Positive	Type A (H3N2) – Seasonal	288	14%
	Type A (H1N1) 2009	69	3%
	Type B	158	8%
	Type A (H3N2v)	0	--
Negative		1,549	75%
Total		2,064	100%

The graph below shows the combined observations of several influenza tracking systems. Note that there was no sharp peak of activity, with only a slight increase between weeks six and ten (corresponding to the weeks ending February 11 and March 10).



Combined influenza surveillance measurements for the 2011-2012 influenza season by MMWR week. (ILI = "Influenza Like Illness")