



Delaware Weekly Influenza Report

MMWR Week 8 (February 22 – 28, 2015)

Delaware Division of Public Health

National Influenza Synopsis 2014-2015:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. During MMWR Week 8 (February 22 - 28, 2015), flu activity decreased slightly, but remains widespread across most of the United States and severity indicators are still high. During week 8 influenza activity continued to decrease, but remained elevated in the United States. The geographic spread of influenza was reported as widespread in 12 states and Guam. Thirty states, the U.S. Virgin Islands and Puerto Rico reported regional activity. The District of Columbia and six states (Colorado, Delaware, Minnesota, Nevada, South Dakota and West Virginia) reported local activity. Two states (Alaska and Oregon) reported sporadic activity. Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2014-2015:

During MMWR Week 8, there were 25 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total number of laboratory-confirmed cases this season to 2,222. Reports of influenza-like illness (ILI) received from participating providers, facilities and institution was 0.86%; below the regional baseline of 2.0%. ILI was 2.5% nationally, above the national baseline of 2.0%.

Level of Influenza Activity in Delaware, MMWR Week 8:

Local	Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.
Influenza-like illness (ILI) is defined as patients presenting with fever of 100° F or greater, cough and/or sore throat in the absence of a known cause other than influenza.	
No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.	
Sporadic: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.	
Local: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.	
Regional: <i>Outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions.</i> ³	
Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.	

¹ 2014-2015 Region 3 (DE, DC, MD, PA, VA, and WV) baseline = 2.0%.

² Laboratory-confirmed case = case confirmed by viral culture or PCR.

³ Region = population under surveillance in a defined geographical subdivision of a state. Regions typically include several counties. Regional doesn't apply to states with ≤ four counties.

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Table 1a. Influenza positive¹ cases reported² statewide and county by subtype (A) or lineage (B)³, Delaware 2014-15

Confirmed Flu Cases by Subtype / Lineage		Wk 40-46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 53	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4	2,222	
	A / 2012 H3N2	34	23	33	38	47	88	61	48	49	46	45	40	36	26	12	14	640		
	A / no subtype	20	16	40	47	66	241	387	228	141	101	99	58	32	48	19	5	1548		
	B / Yamagata	0	0	0	0	1	0	0	0	2	1	1	0	0	0	0	1	6		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	4	0	0	1	1	0	0	0	1	1	1	0	1	3	6	5	24		
New Castle County	A / 2009 H1N1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	975	43.9%
	A / 2012 H3N2	3	3	6	10	20	53	40	33	32	30	27	28	18	23	10	12	348		
	A / no subtype	0	1	3	3	7	70	184	110	70	44	61	19	7	24	7	3	613		
	B / Yamagata	0	0	0	0	1	0	0	0	2	0	1	0	0	0	0	0	4		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	1	0	0	1	0	0	0	0	0	0	0	0	0	1	4	2	9		
Kent County	A / 2009 H1N1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	824	37.1%
	A / 2012 H3N2	1	4	5	5	9	17	13	7	9	12	5	9	12	2	2	1	113		
	A / no subtype	2	4	16	23	38	113	177	104	57	43	30	37	21	18	12	2	697		
	B / Yamagata	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	2	0	0	0	1	0	0	0	1	1	1	0	0	1	2	1	10		
Sussex County	A / 2009 H1N1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	423	19.0%
	A / 2012 H3N2	30	16	22	23	18	18	8	8	8	4	13	3	6	1	0	1	179		
	A / no subtype	18	11	21	21	21	58	26	14	14	14	8	2	4	6	0	0	238		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	5		

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2014-15

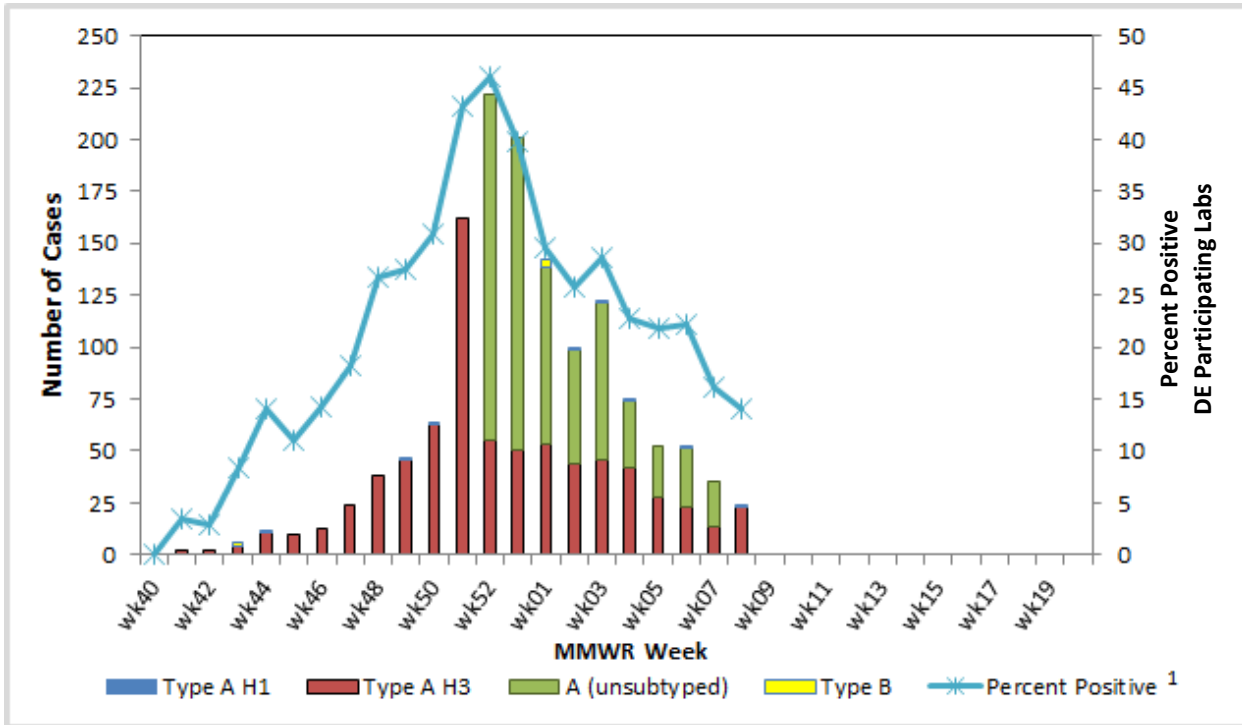
Confirmed Flu Cases by Age Group		Wk 40-46	Wk 47	Wk 48	Wk 49*	Wk 50	Wk 51	Wk 52	Wk 53	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	13	6	6	8	12	58	73	29	24	24	14	17	5	12	4	5	310	2,222	
	5-24 years	28	17	38	28	54	154	129	31	39	38	26	22	19	14	9	2	648		
	25-49 years	9	7	13	30	24	46	84	58	35	23	32	21	12	10	9	1	414		
	50-64 years	2	5	8	7	8	23	49	43	18	20	24	14	14	12	4	8	259		
	65+ years	6	4	8	13	17	49	116	115	77	44	50	24	19	29	11	9	591		
New Castle County	0-4 years	1	0	0	1	3	21	33	6	7	8	7	4	4	12	2	3	112	975	43.9%
	5-24 years	0	1	2	4	13	56	70	11	16	14	12	8	2	7	7	1	224		
	25-49 years	1	2	4	6	4	18	32	25	21	9	20	12	2	6	2	0	164		
	50-64 years	1	1	2	1	2	4	29	23	7	10	17	7	4	5	2	6	121		
	65+ years	1	0	1	2	6	25	60	78	53	33	33	16	13	18	8	7	354		
Kent County	0-4 years	3	0	3	3	5	26	30	20	16	12	5	12	1	0	2	2	140	824	37.1%
	5-24 years	1	6	12	12	22	67	51	16	17	19	10	14	17	4	2	1	271		
	25-49 years	1	1	3	7	13	17	48	29	9	11	8	7	5	3	7	0	169		
	50-64 years	0	0	2	1	2	13	15	14	9	8	5	5	7	4	2	1	88		
	65+ years	0	1	1	5	6	7	49	32	16	7	8	8	3	10	3	0	156		
Sussex County	0-4 years	9	6	3	4	4	11	10	3	1	4	2	1	0	0	0	0	58	423	19.0%
	5-24 years	27	10	24	12	19	31	8	4	6	5	4	0	0	3	0	0	153		
	25-49 years	7	4	6	17	7	11	4	4	5	3	4	2	5	1	0	1	81		
	50-64 years	1	4	4	5	4	6	5	6	2	2	2	2	3	3	0	1	50		
	65+ years	5	3	6	6	5	17	7	5	8	4	9	0	3	1	0	2	81		

¹ Based on patients with positive nucleic acid or viral culture test results reported to the Division of Public Health.

² Reports are by the date the laboratory results are obtained. As a result, prior weeks' counts may be adjusted to reflect additional cases received.

³ The Division of Public Health Laboratory now has the capability to identify lineage for Influenza B. Since some laboratories in the state do not have this capability, these influenza cases will be categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases¹ of influenza by type and subtype/lineage, Delaware 2014-15*



¹ Based on patients with positive nucleic acid or viral culture test results reported to the Delaware Division of Public Health.

Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2014-15

Hospitalized Flu Cases by Age Group		Wk 40-46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 53	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	1	1	1	0	0	1	7	2	0	2	0	0	0	0	0	0	0	15	578	
	5-24 years	0	1	1	1	1	2	6	2	4	0	0	2	1	0	1	1	23			
	25-49 years	0	0	0	2	1	6	7	12	9	5	7	7	1	2	2	0	61			
	50-64 years	0	1	0	3	0	5	18	21	9	6	12	4	3	2	2	1	87			
	65+ years	4	0	0	4	12	27	73	89	58	28	35	15	11	22	7	7	392			
New Castle County	0-4 years	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	415	71.8%	
	5-24 years	0	0	1	0	1	2	5	2	3	0	0	2	1	0	1	1	19			
	25-49 years	0	0	0	2	1	4	5	9	7	4	5	7	0	2	1	0	47			
	50-64 years	0	1	0	1	0	0	14	18	6	5	10	3	2	1	2	1	64			
	65+ years	1	0	0	1	6	17	41	67	48	22	30	11	9	14	7	7	281			
Kent County	0-4 years	1	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	5	112	19.4%	
	5-24 years	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	4			
	25-49 years	0	0	0	0	0	1	2	3	1	1	1	0	0	0	1	0	10			
	50-64 years	0	0	0	1	0	4	4	3	2	1	1	1	1	1	0	0	19			
	65+ years	0	0	0	1	1	2	28	18	5	3	4	4	1	7	0	0	74			
Sussex County	0-4 years	0	1	1	0	0	0	2	1	0	1	0	0	0	0	0	0	6	51	8.8%	
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	25-49 years	0	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	4			
	50-64 years	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	4			
	65+ years	3	0	0	2	5	8	4	4	5	3	1	0	1	1	0	0	37			

Table 3. Influenza-related deaths, Delaware 2014-15

Influenza-Related Deaths	Wk 40-46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 53	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD Total
	0	2	0	0	0	0	1	3	5	5	3	1	2	0	4	2	28

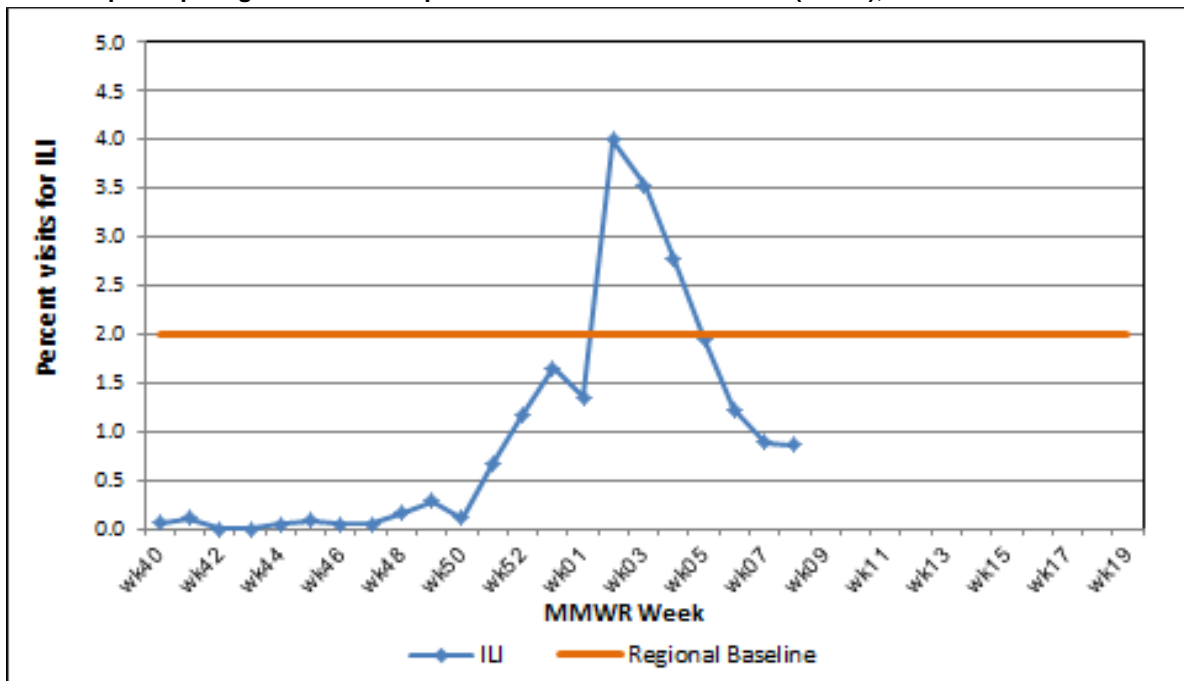
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2014-15

Influenza Season	Total Annual Influenza Cases
2004 – 2005	995
2005 – 2006	541
2006 – 2007	508
2007 – 2008	1,401
2008 – 2009	738
2009 – 2010	2,247
2010 – 2011	1,470
2011 – 2012	262
2012 – 2013	1,773
2013 – 2014	1,842
2014 – 2015 (YTD)	2,222

U.S. Outpatient Influenza-Like Illness Surveillance Network (ILINet) Sentinel Providers

An ILINet (sentinel) provider conducts surveillance for influenza-like illness (ILI) in collaboration with the Division of Public Health and the Centers for Disease Control and Prevention (CDC). Data reported by ILINet providers, in combination with other influenza surveillance data, provide a national and statewide picture of influenza activity in the U.S.

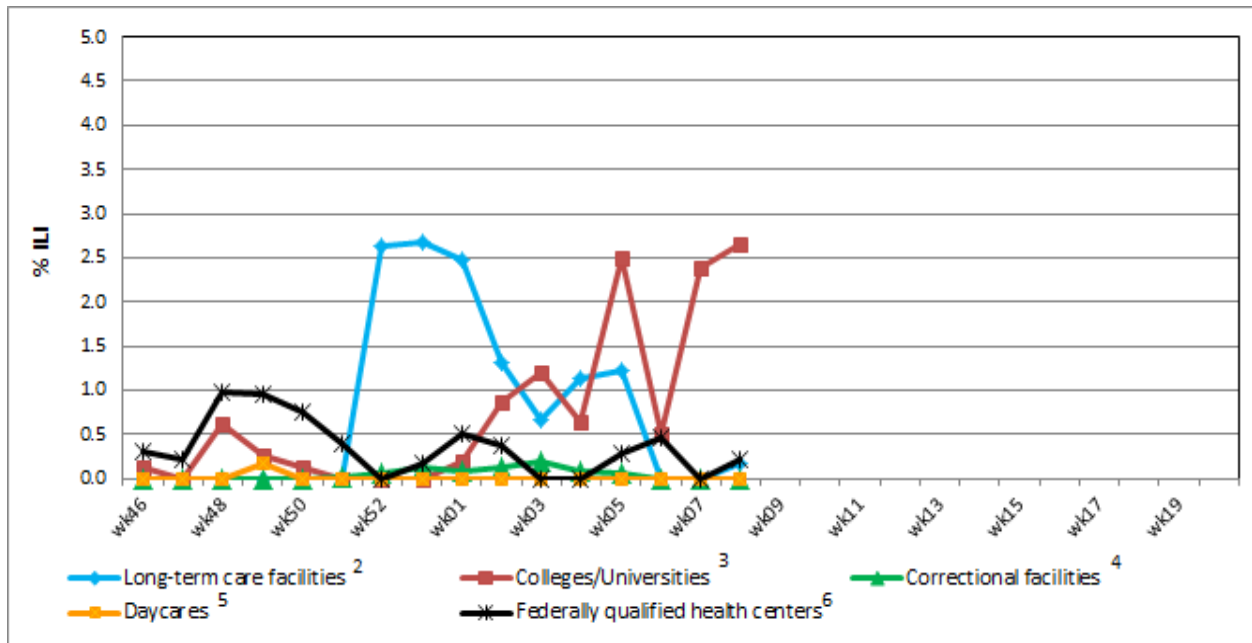
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2014-15



¹ Twelve of 16 sentinel providers reported.

² Regional baseline is calculated by CDC using non-influenza weeks from the previous three influenza seasons. Delaware is in Region 3 that includes DE, DC, MD, PA, VA and WV.

Figure 3. Influenza-like illness reported by influenza surveillance ILI reporting partners¹, Delaware 2014-15



¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities, daycare facilities and federally qualified health centers (FQHCs).

² % ILI= percentage of residents with ILI symptoms. Six long-term care facilities reported.

³ % ILI= percentage of student visits for ILI; Three universities reported.

⁴ % ILI= percentage of visits for ILI at the correctional facility; Ten facilities reported.

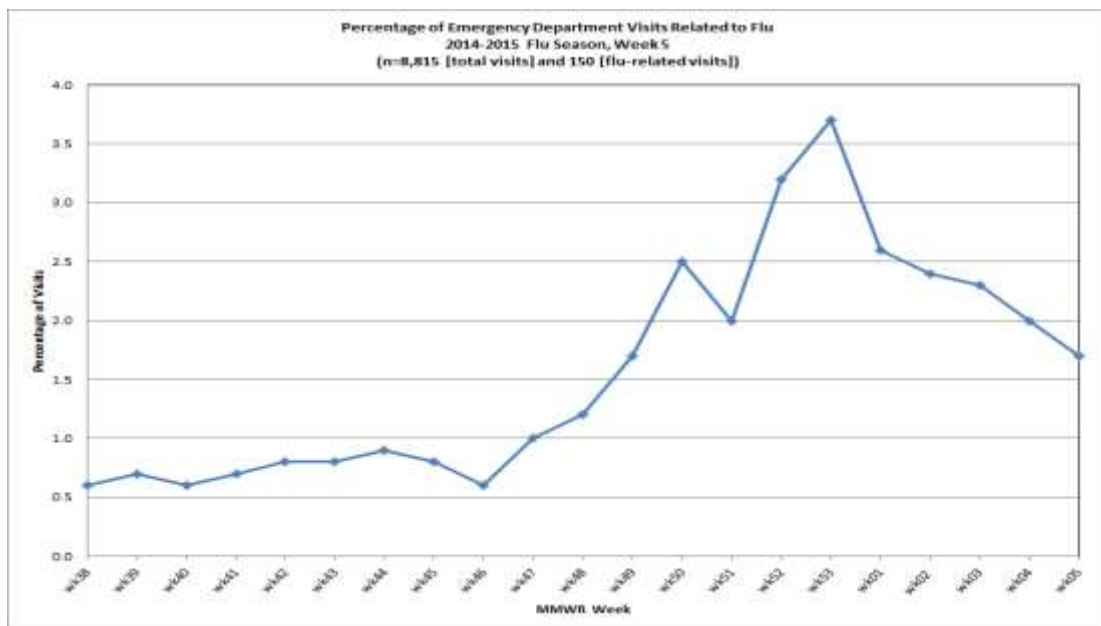
⁵ % ILI= percentage of children absent with ILI; One daycare provider reported.

⁶ % ILI= percentage of visits for ILI at FQHCs; LaRed (Seaford & Georgetown) and Henrietta Johnson Medical Center (Wilmington & Southbridge).

⁷ The regional baseline is calculated by CDC using non-influenza weeks from the previous three influenza seasons. Delaware is part of Region 3 that also includes DC, MD, PA, VA and WV.

Figure 4. Percentage of Delaware emergency department visits related to influenza (flu)*, 2014-15

Data for weeks 6 and later are unavailable at this time.



* Two syndromes are represented in this graph. Influenza-like illness (ILI) syndrome is defined as a chief complaint with fever and cough and/or sore throat. The flu syndrome is defined as any chief complaint regarding influenza.

Summary of International Influenza Activity

Globally, influenza activity remained high in the northern hemisphere with influenza A(H3N2) viruses predominating. Some countries reported an increase in influenza A(H1N1)pdm09 activity. Antigenic characterization of most recent A(H3N2) viruses thus far indicated differences from the A(H3N2) virus used in the influenza vaccines for the northern hemisphere 2014-2015.

In North America, influenza activity seems to have peaked. Influenza A(H3N2) virus predominated this season. In the United States, influenza activity declined but remained high. The influenza detection rate peaked at 30.4 % positivity at the end of December 2014 and decreased to 14.9%. The pneumonia and influenza mortality from the 122 Cities Reporting Systems returned to 8.1% but was still above the epidemic threshold of 7.2% for this week. Among the subtyped influenza specimens 72.0% were influenza A(H3N2), 0.4% influenza A(H1N1)pdm09 and 27.6% were influenza B, indicating an increase of influenza B virus circulation. The influenza-related hospitalization rate was at 44.1 per 100 000 population, with the highest rate among adults > 65 years of age. ILI activity (3.0%) decreased this week but remained above the national baseline of 2.0%. In Canada, influenza activity appeared to have peaked with influenza-like illness (ILI) rates, hospitalization rates and the influenza positivity rate declining in the last few weeks.

In tropical countries of the Americas, influenza activity remained low in most countries. In Europe, the influenza season continued to rise, particularly in western and central countries. Influenza A(H3N2) remained the dominant virus detected this season. However, in southwest Europe the proportion of influenza A(H1N1) and influenza B increased. In the temperate countries of Asia, influenza activity decreased from its peak in northern China, but continued to increase in Mongolia and the Republic of Korea. Influenza A(H3N2) virus predominated so far. In tropical Asia, influenza activity continued to increase in southern China, Hong Kong and India. In the southern hemisphere, influenza activity remained at inter-seasonal levels.

Reference: World Health Organization (WHO), 2015. Influenza Update number 231 (2/23/15). Retrieved on February 27, 2015, from http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ Reports are updated biweekly.

NOTE: The data provided do not reflect the total number of individuals who have been infected with the influenza virus in Delaware during the reporting period due to the following factors:

- Many people ill with influenza-like symptoms do not seek medical care.
- Many who do seek medical care are not tested for influenza.
- The Delaware Public Health Laboratory is limited by capacity to processing a maximum of three specimens per day from each reporting entity.

The Delaware Division of Public Health (DPH) is committed to serving you better by providing the most accurate influenza data available. Please visit us at flu.delaware.gov or <http://dhss.delaware.gov/dhss/dph/dpc/immunize-flu.html> for general information on the flu or specific information on DPH flu clinics.

➤ For questions on Delaware's weekly flu report, call the DPH Office of Infectious Disease Epidemiology at 302-744-4990.

➤ For questions regarding influenza vaccination information, please call 302-744-1060.