



Delaware Weekly Influenza Report

MMWR Week 16 (April 17 - 23, 2016)

Delaware Division of Public Health

National Influenza Synopsis 2015-2016:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. During MMWR Week 16 (April 17 - 23, 2016) influenza activity decreased in the United States. The most frequently identified influenza virus type reported by public health laboratories during week 16 was influenza B. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Widespread** influenza activity was reported by Guam, Puerto Rico, and 13 states (Connecticut, Delaware, Kentucky, Maine, Massachusetts, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Vermont, Virginia, and Wisconsin). **Regional** influenza activity was reported by 16 states (Alabama, Alaska, Arizona, California, Colorado, Idaho, Iowa, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New Mexico, North Dakota, Oklahoma, and Oregon). **Local** influenza activity was reported by the District of Columbia and 13 states (Arkansas, Hawaii, Kansas, Maryland, Montana, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Washington, West Virginia, and Wyoming). **Sporadic** influenza activity was reported by the U.S. Virgin Islands and eight states (Florida, Georgia, Illinois, Indiana, Louisiana, Mississippi, Nevada, and Utah). Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2015-2016:

During Week 16 there were 134 laboratory-confirmed cases of influenza reported among Delaware residents. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in **Delaware show ILI is 0.33%**, (baseline is 1.8%). **Nationally, ILI is 2.0%** (national baseline is 2.1%).

Level of Influenza Activity in Delaware, MMWR Week 16:

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.
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: 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. 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 2015-2016 Region 3 (DE, DC, MD, PA, VA and WV) baseline = 1.8%.

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 2015-16

Confirmed Flu Cases by Subtype / Lineage		Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	1	1	0	2	2	2	9	24	58	77	91	67	65	27	15	10	5	456	1,975	
	A / 2012 H3N2	6	0	2	0	0	0	0	1	2	3	2	0	2	1	0	0	0	19		
	A / no subtype	3	3	0	0	2	2	7	10	38	91	262	169	136	97	50	36	37	943		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2		
	B / Yamagata	3	0	0	0	1	0	1	3	3	2	5	6	3	5	3	7	5	47		
	B / Victoria	0	0	0	1	0	2	2	1	4	7	5	9	7	5	4	4	5	56		
	B / no lineage	4	0	1	0	1	0	1	3	13	17	51	57	60	58	60	44	82	452		
New Castle County	A / 2009 H1N1	1	1	0	0	1	0	8	14	42	61	73	52	51	17	14	6	5	346	1,295	65.6%
	A / 2012 H3N2	5	0	1	0	0	0	0	1	1	3	0	0	1	1	0	0	0	13		
	A / no subtype	1	2	0	0	1	2	2	3	21	64	171	127	86	70	33	18	20	621		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1*	0	0	0	0	0	0	0	1		
	B / Yamagata	2	0	0	0	1	0	0	3	3	2	4	6	1	2	2	5	5	36		
	B / Victoria	0	0	0	0	0	2	2	0	2	1	3	3	3	0	1	0	1	18		
	B / no lineage	3	0	0	0	0	0	0	1	7	7	25	30	36	34	39	26	52	260		
Kent County	A / 2009 H1N1	0	0	0	1	1	0	0	5	5	8	5	6	5	3	0	1	0	40	419	21.2%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
	A / no subtype	2	0	0	0	1	0	3	5	8	19	60	28	32	19	11	14	10	212		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	0	6		
	B / Victoria	0	0	0	1	0	0	0	0	2	0	0	3	1	0	2	2	2	13		
	B / no lineage	1	0	1	0	0	0	1	2	4	5	20	22	20	17	19	15	20	147		
	A / 2009 H1N1	0	0	0	1	0	2	1	5	11	8	13	9	9	7	1	3	0	70		
A / 2012 H3N2	1	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0	5			
A / no subtype	0	1	0	0	0	0	2	2	9	8	31	14	18	8	6	4	7	110			
A,B co-infection	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1			
B / Yamagata	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	5			
B / Victoria	0	0	0	0	0	0	0	1	0	6	2	3	3	5	1	2	2	25			
B / no lineage	0	0	0	0	1	0	0	0	2	5	6	5	4	7	2	3	10	45			

* - being analyzed at CDC

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2015-16

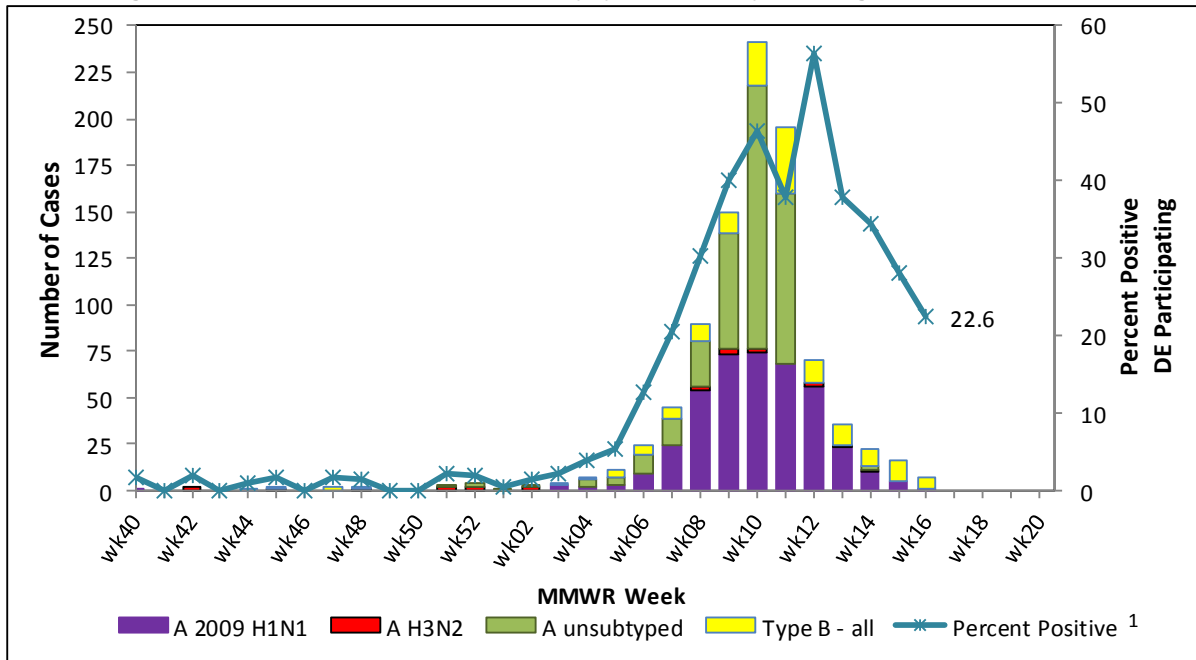
Confirmed Flu Cases by Age Group		Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	2	0	0	2	1	0	5	7	22	41	76	55	69	36	31	20	32	399	1,975	
	5-24 years	6	2	1	0	1	3	7	8	34	56	131	105	93	47	37	40	50	621		
	25-49 years	6	1	1	1	1	2	5	15	37	63	103	79	53	58	30	23	21	499		
	50-64 years	1	1	0	0	2	1	1	9	15	24	65	39	35	26	24	13	21	277		
	65+ years	2	0	1	0	1	0	2	3	10	14	41	31	23	26	10	5	10	179		
New Castle County	0-4 years	2	0	0	0	0	0	3	5	13	35	65	45	51	28	27	13	21	308	1,295	65.6%
	5-24 years	4	2	0	0	1	3	4	4	23	35	91	68	61	27	22	23	31	399		
	25-49 years	4	0	0	0	1	1	3	5	23	41	51	48	26	33	17	8	12	273		
	50-64 years	0	1	0	0	1	0	1	5	9	17	43	32	24	14	16	7	13	183		
	65+ years	2	0	1	0	0	0	1	3	8	11	26	25	16	22	7	4	6	132		
Kent County	0-4 years	0	0	0	2	1	0	1	1	3	5	4	6	7	4	4	4	7	49	419	21.2%
	5-24 years	1	0	1	0	0	0	1	2	5	7	26	25	23	11	14	13	13	142		
	25-49 years	2	0	0	0	0	0	2	5	8	13	30	18	21	14	9	12	6	140		
	50-64 years	0	0	0	0	0	0	0	4	2	5	17	6	4	9	4	3	4	58		
	65+ years	0	0	0	0	1	0	0	0	1	2	9	4	5	3	2	1	2	30		
Sussex County	0-4 years	0	0	0	0	0	0	1	1	6	1	7	4	11	4	0	3	4	42	261	13.2%
	5-24 years	1	0	0	0	0	0	2	2	6	14	14	12	9	9	1	4	6	80		
	25-49 years	0	1	1	1	0	1	0	5	6	9	22	13	6	11	4	3	3	86		
	50-64 years	1	0	0	0	1	1	0	0	4	2	5	1	7	3	4	3	4	36		
	65+ years	0	0	0	0	0	0	1	0	1	1	6	2	2	1	1	0	2	17		

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, those influenza cases will be categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases¹ of influenza by type and subtype/lineage, Delaware 2015-16*



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 2015-16

Hospitalized Flu Cases by Age Group		Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	0	0	0	0	0	0	0	1	2	6	6	9	5	2	3	5	4	43	337	
	5-24 years	1	0	0	0	0	0	1	1	1	7	12	5	5	2	3	6	3	47		
	25-49 years	0	0	0	0	0	0	2	1	3	9	10	5	7	8	5	2	3	55		
	50-64 years	0	0	0	0	0	0	1	3	6	11	22	14	14	7	8	0	3	89		
	65+ years	2	0	1	0	1	0	1	1	7	11	19	20	11	15	5	2	7	103		
New Castle County	0-4 years	0	0	0	0	0	0	0	1	0	6	5	9	5	1	3	3	2	35	266	78.9%
	5-24 years	1	0	0	0	0	0	1	1	1	4	10	4	5	2	3	5	3	40		
	25-49 years	0	0	0	0	0	0	1	1	2	7	9	5	6	5	4	2	1	43		
	50-64 years	0	0	0	0	0	0	1	2	3	7	19	11	11	5	5	0	2	66		
	65+ years	2	0	1	0	0	0	1	1	6	8	14	18	8	14	4	1	4	82		
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	5	46	13.7%
	5-24 years	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	3		
	25-49 years	0	0	0	0	0	0	1	0	1	2	0	0	1	2	1	0	1	9		
	50-64 years	0	0	0	0	0	0	0	1	1	2	2	3	1	2	2	0	1	15		
	65+ years	0	0	0	0	1	0	0	0	0	2	4	2	2	0	0	1	2	14		
Sussex County	0-4 years	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	25	7.4%
	5-24 years	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	4		
	25-49 years	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	3		
	50-64 years	0	0	0	0	0	0	0	0	2	2	1	0	2	0	1	0	0	8		
	65+ years	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	1	7		

Table 3. Influenza-related deaths, Delaware 2015-16

Influenza-related Deaths	Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	YTD
	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	4

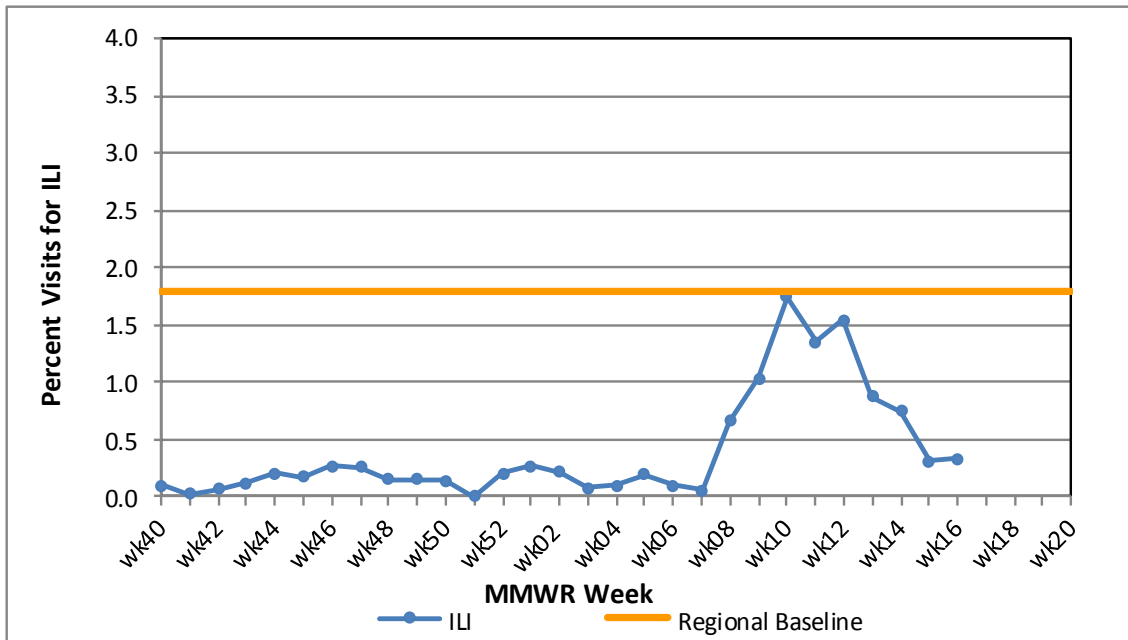
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2015-16

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	1,479
2011 – 2012	267
2012 – 2013	1,781
2013 – 2014	1,842
2014 – 2015	2,390
2015 – 2016 (YTD)	1,975

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.

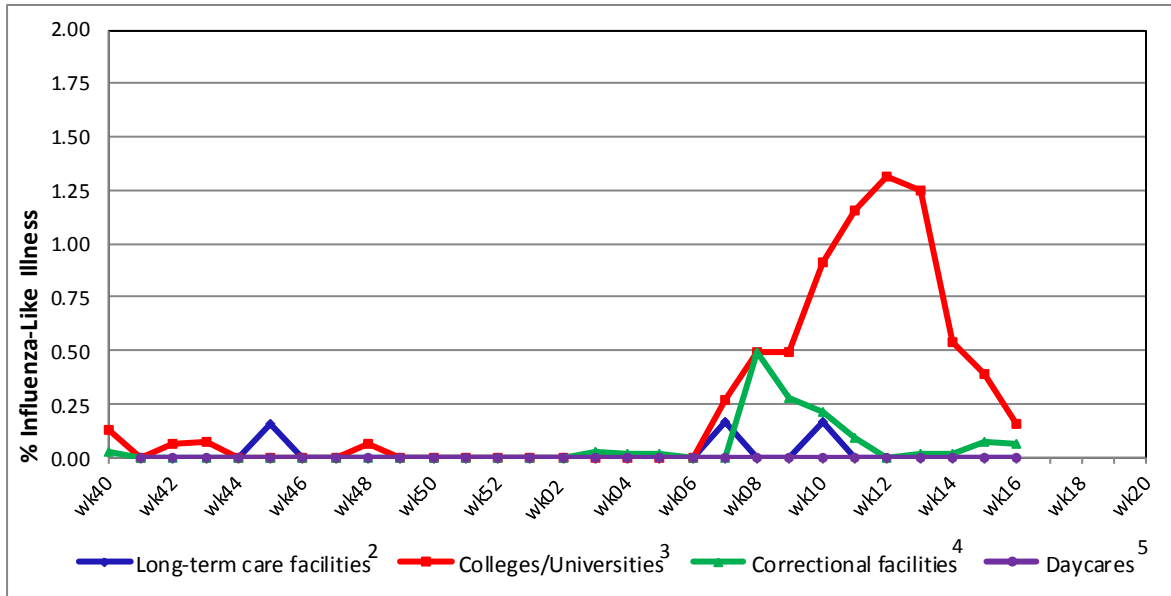
Figure 2. Percentage of visits for influenza-like illness (ILI) reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2015-16



¹ 12 of 17 sentinel providers reported.

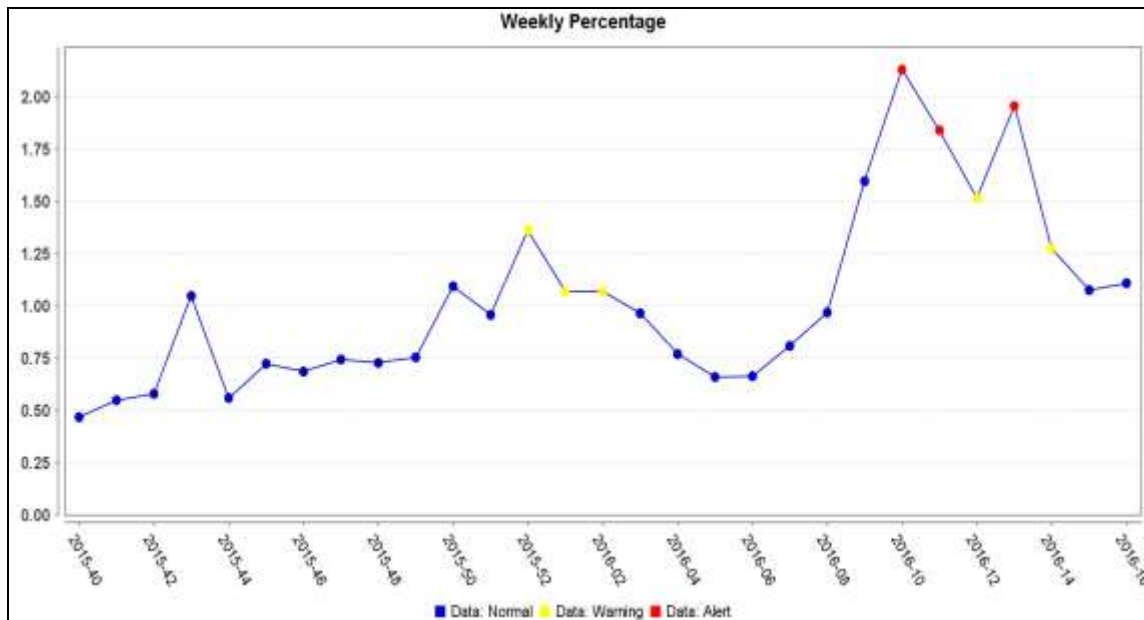
² Regional baseline is calculated by CDC using non-influenza weeks from the previous three influenza seasons. Delaware is in Region 3 that includes DE, DC, MD, PA, VA and WV.

Figure 3. Percentage of influenza-like illness (ILI) reported by influenza surveillance ILI reporting partners¹, Delaware 2015-16



¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities. Federally qualified health centers are now CDC ILINet sentinel providers.
² % ILI= percentage of residents with ILI symptoms. Six long-term care facilities reported.
³ % ILI= percentage of student visits for ILI; Two universities reported.
⁴ % ILI= percentage of visits for ILI at the correctional facility; Ten correctional facilities reported.
⁵ % ILI= percentage of children absent with ILI; No daycare providers reported.

Figure 4. Percentage of emergency department visits due to ILI/Flu by MMWR week, Delaware, 2015-16



Summary of International Influenza Activity

In the Northern Hemisphere influenza activity was decreasing, while still elevated in some areas, due in part to an increase of influenza B activity. In the Southern Hemisphere influenza activity was reported to be slightly increasing.

In North America, decreasing influenza activity continued, however high levels remained. Co-circulation of influenza A (predominantly influenza A(H1N1)pdm09) and influenza B was observed. The majority of indicators related to influenza surveillance began to show a decreasing trend in the last several weeks in Canada, Mexico and the United States.

In Central America and the Caribbean, low influenza activity was reported in most countries except in Jamaica where elevated severe acute respiratory infection (SARI) activity associated with influenza A(H1N1)pdm09 virus infection was reported.

In Europe, a decreasing trend of influenza activity was observed overall. In Northern Europe, overall influenza activity decreased but remained at moderate levels. A shift towards circulation of influenza B virus was detected in parts of Europe.

Northern Temperate Asia continued to report ongoing and elevated levels of influenza activity with increasing proportions of influenza B virus.

In tropical South America, low but increasing circulation of influenza A(H1N1)pdm09 virus was reported. In Brazil, influenza activity was above expected levels for this time of year with influenza A(H1N1)pdm09 virus predominating. Colombia reported high circulation of respiratory syncytial virus (RSV). In temperate South America, influenza activity slightly increased but remained at low level. An increase in influenza-like illness (ILI) and SARI rates were reported in Argentina, Chile and Paraguay.

In Oceania and South Africa influenza virus activity remained low.

Source: World Health Organization (WHO), 2016. Influenza Update Number 261 (4/18/16 – based on data up to 4/3/16). Retrieved on 4/21/16 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, up-to-date influenza data available.

- For general information on influenza, visit flu.delaware.gov or <http://dhss.delaware.gov/dhss/dph/dpc/immunize-flu.html>.
- For specific information on DPH flu clinics, visit <http://dhss.delaware.gov/dhss/dph/fluclinics.html>.
- For questions on Delaware's weekly flu report, call the DPH Office of Infectious Disease Epidemiology: 302-744-4990.
- For questions regarding influenza vaccination, please call 302-744-1060.