



# Delaware Weekly Influenza Report

## MMWR Week 14 (April 3 - 9, 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 14 (April 3 – 9, 2016) influenza activity decreased, but remained elevated in the United States. The most frequently identified influenza virus type reported by public health laboratories during week 14 was influenza A, with influenza A (H1N1)pdm09 viruses predominating. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased, **Widespread** influenza activity was reported by Puerto Rico and 18 states (Alaska, Arizona, California, Colorado, Connecticut, Delaware, Iowa, Kentucky, Maine, Massachusetts, Nebraska, New Hampshire, New York, Ohio, Pennsylvania, Vermont, Virginia and Wisconsin). **Regional** influenza activity was reported by Guam and 19 states (Arkansas, Idaho, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nevada, New Jersey, New Mexico, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Utah, Washington and Wyoming). **Local** influenza activity was reported by the District of Columbia and ten states (Alabama, Georgia, Hawaii, Illinois, Louisiana, North Carolina, South Carolina, Tennessee, Texas and West Virginia). **Sporadic** influenza activity was reported by the U.S. Virgin Islands and three states (Florida, Indiana and Mississippi). Both national and state data are provisional and subject to change as additional reports are received.

#### **Delaware Influenza Surveillance 2015-2016:**

During Week 14 there were 132 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 0.52%**, (baseline is 1.8%). **Nationally, ILI is 2.1%** (national baseline is 2.1%).

#### **Level of Influenza Activity in Delaware, MMWR Week 14:**

<b>Widespread</b>	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.
<b>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.</b>	
<b>No Activity:</b> No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.	
<b>Sporadic:</b> 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.	
<b>Local:</b> Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.	
<b>Regional:</b> 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. <sup>3</sup>	
<b>Widespread:</b> 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.	

<sup>1</sup> 2015-2016 Region 3 (DE, DC, MD, PA, VA and WV) baseline = 1.8%.

<sup>2</sup> Laboratory-confirmed case = case confirmed by viral culture or PCR.

<sup>3</sup> 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 positive<sup>1</sup> cases reported<sup>2</sup> statewide and county by subtype (A) or lineage (B)<sup>3</sup>, 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	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	1	1	0	2	2	2	9	24	58	77	91	67	65	27	15	441	1,739	
	A / 2012 H3N2	6	0	2	0	0	0	0	1	2	3	2	0	2	1	0	19		
	A / no subtype	3	3	0	0	2	2	7	10	38	91	261	169	136	97	50	869		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2		
	B / Yamagata	3	0	0	0	1	0	1	3	3	2	5	6	3	5	3	35		
	B / Victoria	0	0	0	1	0	2	2	1	4	7	5	9	7	5	4	47		
	B / no lineage	4	0	1	0	1	0	1	3	13	17	51	57	60	58	60	326		
New Castle County	A / 2009 H1N1	1	1	0	0	1	0	8	14	42	61	73	52	51	17	14	335	1,156	66.5%
	A / 2012 H3N2	5	0	1	0	0	0	0	1	1	3	0	0	1	1	0	13		
	A / no subtype	1	2	0	0	1	2	2	3	21	64	170	127	86	70	33	582		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1*	0	0	0	0	0	1		
	B / Yamagata	2	0	0	0	1	0	0	3	3	2	4	6	1	2	2	26		
	B / Victoria	0	0	0	0	0	2	2	0	2	1	3	3	3	0	1	17		
	B / no lineage	3	0	0	0	0	0	0	1	7	7	25	30	36	34	39	182		
Kent County	A / 2009 H1N1	0	0	0	1	1	0	0	5	5	8	5	6	5	3	0	39	354	20.4%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
	A / no subtype	2	0	0	0	1	0	3	5	8	19	60	28	32	19	11	188		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	5		
	B / Victoria	0	0	0	1	0	0	0	0	0	0	3	1	0	2	9	9		
	B / no lineage	1	0	1	0	0	0	1	2	4	5	20	22	20	17	19	112		
Sussex County	A / 2009 H1N1	0	0	0	1	0	2	1	5	11	8	13	9	9	7	1	67	229	13.2%
	A / 2012 H3N2	1	0	1	0	0	0	0	0	1	0	2	0	0	0	0	5		
	A / no subtype	0	1	0	0	0	0	2	2	9	8	31	14	18	8	6	99		
	A,B co-infection	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
	B / Yamagata	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	4		
	B / Victoria	0	0	0	0	0	0	0	1	0	6	2	3	3	5	1	21		
B / no lineage	0	0	0	0	1	0	0	0	2	5	6	5	4	7	2	32			

\* - being analyzed at CDC

**Table 1b. Influenza positive<sup>1</sup> cases reported<sup>2</sup> statewide and county by age group, Delaware 2015-16**

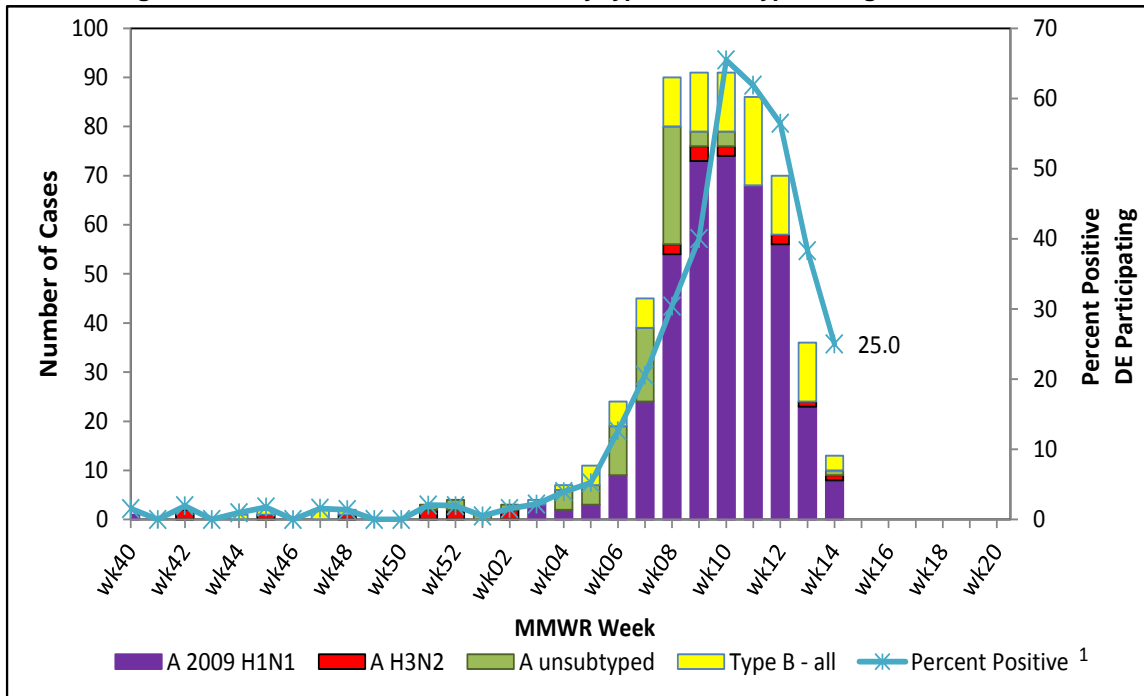
Confirmed Flu Cases by Age Group		Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	2	0	0	2	1	0	5	7	22	41	76	55	69	36	31	347	1,739	
	5-24 years	6	2	1	0	1	3	7	8	34	56	131	105	93	47	37	531		
	25-49 years	6	1	1	1	1	2	5	15	37	63	102	79	53	58	30	454		
	50-64 years	1	1	0	0	2	1	1	9	15	24	65	39	35	26	24	243		
	65+ years	2	0	1	0	1	0	2	3	10	14	41	31	23	26	10	164		
New Castle County	0-4 years	2	0	0	0	0	0	3	5	13	35	65	45	51	28	27	274	1,156	66.5%
	5-24 years	4	2	0	0	1	3	4	4	23	35	91	68	61	27	22	345		
	25-49 years	4	0	0	0	1	1	3	5	23	41	50	48	26	33	17	252		
	50-64 years	0	1	0	0	1	0	1	5	9	17	43	32	24	14	16	163		
	65+ years	2	0	1	0	0	0	1	3	8	11	26	25	16	22	7	122		
Kent County	0-4 years	0	0	0	2	1	0	1	1	3	5	4	6	7	4	4	38	354	20.4%
	5-24 years	1	0	1	0	0	0	1	2	5	7	26	25	23	11	14	116		
	25-49 years	2	0	0	0	0	0	2	5	8	13	30	18	21	14	9	122		
	50-64 years	0	0	0	0	0	0	0	4	2	5	17	6	4	9	4	51		
	65+ years	0	0	0	0	1	0	0	0	1	2	9	4	5	3	2	27		
Sussex County	0-4 years	0	0	0	0	0	0	1	1	6	1	7	4	11	4	0	35	229	13.2%
	5-24 years	1	0	0	0	0	0	2	2	6	14	14	12	9	9	1	70		
	25-49 years	0	1	1	1	0	1	0	5	6	9	22	13	6	11	4	80		
	50-64 years	1	0	0	0	1	1	0	0	4	2	5	1	7	3	4	29		
	65+ years	0	0	0	0	0	0	1	0	1	1	6	2	2	1	1	15		

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

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

<sup>3</sup> 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 cases<sup>1</sup> 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	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	0	0	0	0	0	0	0	1	2	6	6	9	5	2	1	32	298	
	5-24 years	1	0	0	0	0	0	1	1	1	7	12	5	5	2	2	37		
	25-49 years	0	0	0	0	0	0	2	1	3	9	10	5	7	8	5	50		
	50-64 years	0	0	0	0	0	0	1	3	6	11	22	14	13	7	8	85		
	65+ years	2	0	1	0	1	0	1	1	7	11	19	20	11	15	5	94		
New Castle County	0-4 years	0	0	0	0	0	0	0	1	0	6	5	9	5	1	1	28	239	80.2%
	5-24 years	1	0	0	0	0	0	1	1	1	4	10	4	5	2	2	31		
	25-49 years	0	0	0	0	0	0	1	1	2	7	9	5	6	5	4	40		
	50-64 years	0	0	0	0	0	0	1	2	3	7	19	11	10	5	5	63		
	65+ years	2	0	1	0	0	0	1	1	6	8	14	18	8	14	4	77		
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	37	12.4%
	5-24 years	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2		
	25-49 years	0	0	0	0	0	0	1	0	1	2	0	0	1	2	1	8		
	50-64 years	0	0	0	0	0	0	0	1	1	2	2	3	1	2	2	14		
	65+ years	0	0	0	0	1	0	0	0	0	2	4	2	2	0	0	11		
Sussex County	0-4 years	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	22	7.4%
	5-24 years	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4		
	25-49 years	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2		
	50-64 years	0	0	0	0	0	0	0	0	2	2	1	0	2	0	1	8		
	65+ years	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	6		

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	YTD
	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3

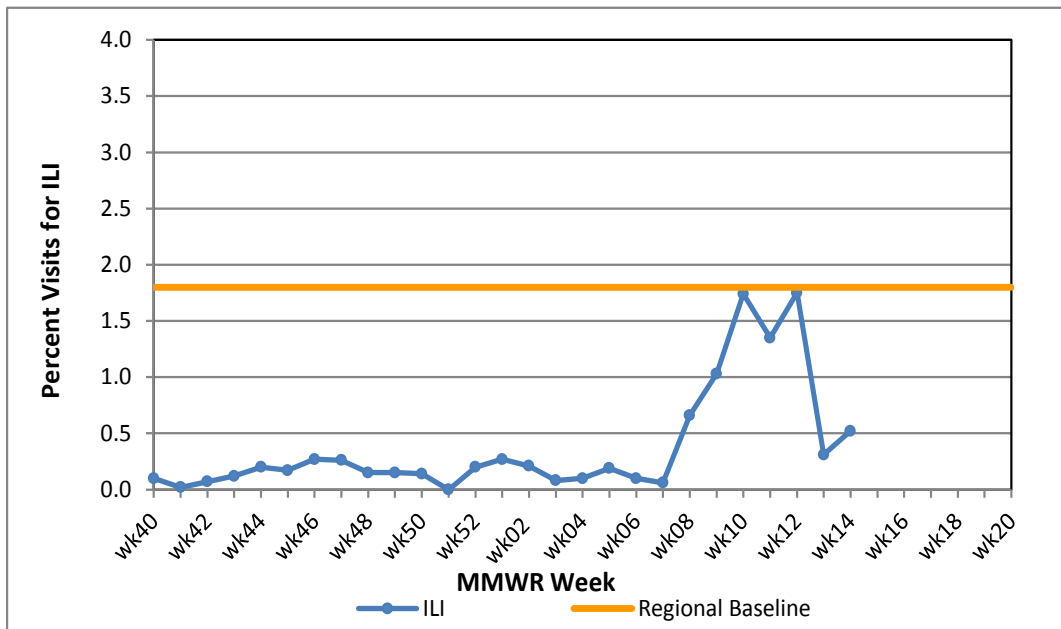
**Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2015-16**

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
<b>2015 – 2016 (YTD)</b>	<b>1,739</b>

**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.

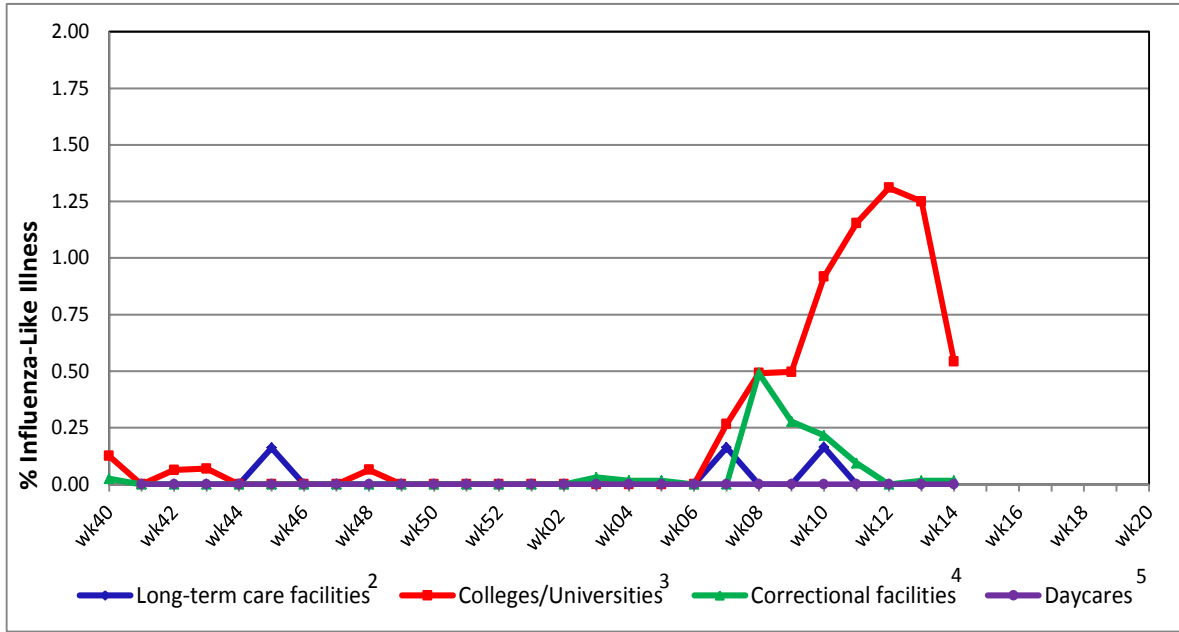
**Figure 2. Percentage of visits for influenza-like illness (ILI) reported by sentinel providers<sup>1</sup> participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2015-16**



<sup>1</sup> 12 of 17 sentinel providers reported.

<sup>2</sup> 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 partners<sup>1</sup>, Delaware 2015-16



<sup>1</sup> 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.

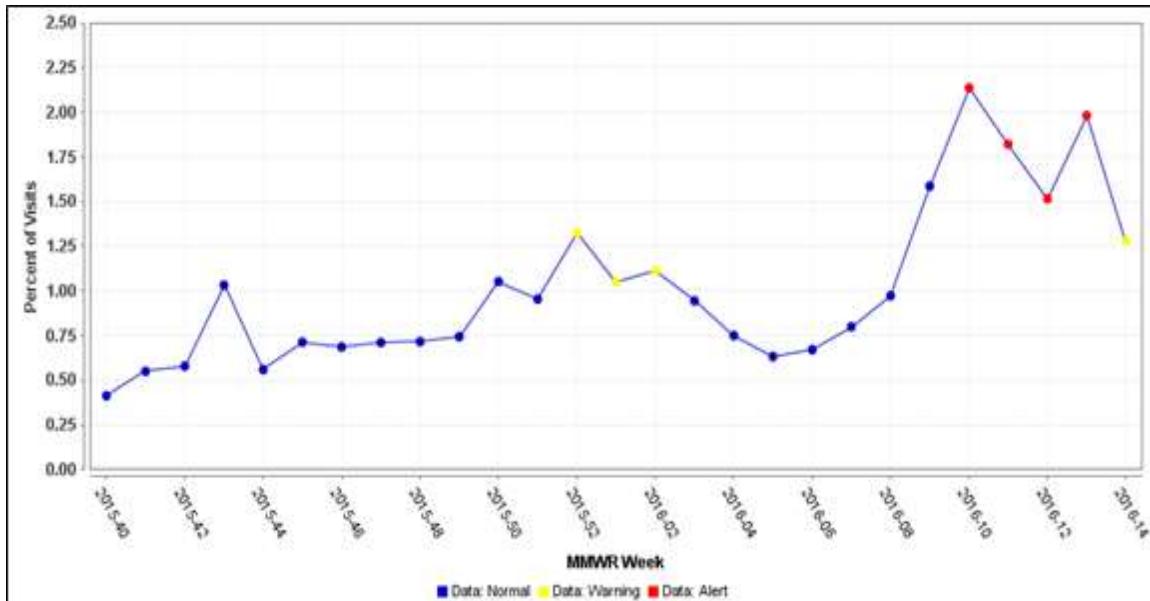
<sup>2</sup> % ILI= percentage of residents with ILI symptoms. Six long-term care facilities reported.

<sup>3</sup> % ILI= percentage of student visits for ILI; Two universities reported.

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

<sup>5</sup> % 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



## **Summary of International Influenza Activity**

Globally, elevated levels of influenza activity continued to be reported in North America, in parts of Europe and in Northern Temperate Asia. An increase in influenza B virus activity has been reported in Northern Temperate Asia, South East Asia and Europe.

In North America, influenza activity has peaked and remained elevated with influenza A(H1N1)pdm09 virus predominating. The majority of indicators related to influenza surveillance began to show a decreasing trend in the last 2 weeks in Canada, Mexico and the United States. Canada reported increased detections of influenza B virus. In Mexico, pneumonia remained high in a number of states in the north of the country.

In the Caribbean, low influenza and other respiratory virus activity were reported in most countries, except in Jamaica, where high levels of severe acute respiratory infection hospitalizations likely related to circulation of influenza A(H1N1)pdm09 were reported. In Central America overall, influenza and other respiratory virus activity remained low and within expected levels. Related indicators also showed a trend of low activity and were within expected levels.

In Europe, high level of influenza activity was still reported with increasing detections of influenza B virus. In most countries influenza activity seemed to have peaked.

Northern temperate Asia continued to report ongoing and elevated levels of influenza with increasing proportions of influenza B. In western Asia, influenza activity continued to decline as seen in previous reporting weeks.

Influenza virus activity remained low in temperate countries of the Southern Hemisphere.

**Source:** World Health Organization (WHO), 2016. Influenza Update Number 260 (4/4/16 – based on data up to 3/20/16). Retrieved on 4/8/16 from [http://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/) Reports are updated biweekly.

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**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](http://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.