



Delaware Weekly Influenza Report

MMWR Week 20 (May 15 - 21, 2016)

Delaware Division of Public Health

Note: This is the last Delaware Weekly Influenza Report until MMWR Week 40, October 2 – 8, 2016.

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 20 (May 15 – 21, 2016) influenza activity decreased in the United States. The most frequently identified influenza virus type reported by public health laboratories during week 20 was influenza A. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Widespread influenza activity** was reported by Puerto Rico and New York. **Regional influenza activity** was reported by Guam and six states (Connecticut, Kentucky, Maine, Massachusetts, New Hampshire and Pennsylvania). **Local influenza activity** was reported by 14 states (Alabama, Alaska, Arizona, Delaware, Hawaii, Michigan, New Jersey, New Mexico, Ohio, Oklahoma, South Carolina, Vermont, West Virginia and Wisconsin). **Sporadic influenza activity** was reported by the District of Columbia, the U.S. Virgin Islands and 28 states (Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, North Carolina, North Dakota, Oregon, Rhode Island, South Dakota, Tennessee, Texas, Utah, Virginia, Washington and Wyoming). **No activity** was reported by Indiana. Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2015-2016:

During Week 20 there were 33 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 0.12%**, (baseline is 1.8%). **Nationally, ILI is 1.3%** (national baseline is 2.1%).

Level of Influenza Activity in Delaware, MMWR Week 20:

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 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.

<u>In this report:</u>	<u>page</u>
Influenza positive cases reported statewide and county, by subtype, Delaware 2015-16	2
Influenza positive cases reported statewide and county by age group, Delaware 2015-16	2
Confirmed cases of influenza by type and subtype, Delaware 2015-16	3
Influenza-related hospitalizations, statewide and county, by age group, Delaware 2015-16	3
Influenza-related deaths, Delaware 2015-16	3
Annual number of influenza cases reported by flu season, Delaware 2004-2005 through 2015-16	4
Percentage of visits for influenza-like illness reported by sentinel providers participating in the ILINet, Delaware 2015-16	4
Influenza-like illness reported by ILI reporting partners, Delaware 2015-16	5
Percentage of Delaware emergency department visits related to influenza, Delaware 2015-16	5
Summary of International Influenza Activity	6

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	Wk 17	Wk 18	Wk 19	Wk 20	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	1	1	0	2	2	2	9	24	58	77	91	67	66	27	11	8	5	2	1	2	11	471	2,221	
	A / 2012 H3N2	6	0	2	0	0	0	0	1	2	3	2	0	2	1	0	0	0	0	0	0	0	19		
	A / no subtype	3	3	0	0	2	2	7	10	38	91	262	169	135	97	35	35	12	9	7	6	35	973		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2		
	B / Yamagata	3	0	0	0	1	0	1	3	3	2	5	6	3	5	8	8	2	5	1	1	8	60		
	B / Victoria	0	0	0	1	0	2	2	1	4	7	5	9	7	5	4	8	6	5	2	1	4	73		
	B / no lineage	4	0	1	0	1	0	1	3	13	17	51	57	60	58	43	76	64	45	46	23	43	623		
New Castle County	A / 2009 H1N1	1	1	0	0	1	0	8	14	42	61	73	52	52	17	14	7	6	5	2	1	2	359	1,458	65.7%
	A / 2012 H3N2	5	0	1	0	0	0	0	1	1	3	0	0	1	1	0	0	0	0	0	0	0	13		
	A / no subtype	1	2	0	0	1	2	2	3	21	64	171	127	85	70	33	17	19	9	7	5	6	645		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1*	0	0	0	0	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	6	6	1	5	1	0	45		
	B / Victoria	0	0	0	0	0	2	2	0	2	1	3	3	3	0	1	0	3	1	1	1	0	23		
	B / no lineage	3	0	0	0	0	0	0	1	7	7	25	30	36	34	39	25	49	44	32	22	18	372		
Kent County	A / 2009 H1N1	0	0	0	1	1	0	0	5	5	8	5	6	5	3	0	1	0	0	0	0	0	40	468	21.1%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	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	0	2	1	0	215		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	1	0	0	0	1	8		
	B / Victoria	0	0	0	1	0	0	0	0	2	0	0	3	1	0	2	2	2	1	0	0	0	14		
	B / no lineage	1	0	1	0	0	0	1	2	4	5	20	22	20	17	19	15	19	13	11	17	3	190		
	Sussex County	A / 2009 H1N1	0	0	0	1	0	2	1	5	11	8	13	9	9	7	1	3	2	0	0	0	0		
A / 2012 H3N2		1	0	1	0	0	0	0	0	1	0	2	0	0	0	0	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	6	3	0	1	0	113		
A,B co-infection		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
B / Yamagata		1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	0	0	0	7		
B / Victoria		0	0	0	0	0	0	0	1	0	6	2	3	3	5	1	2	3	4	4	1	1	36		
B / no lineage		0	0	0	0	1	0	0	0	2	5	6	5	4	7	2	3	8	7	2	7	2	61		

* - being analyzed at CDC

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

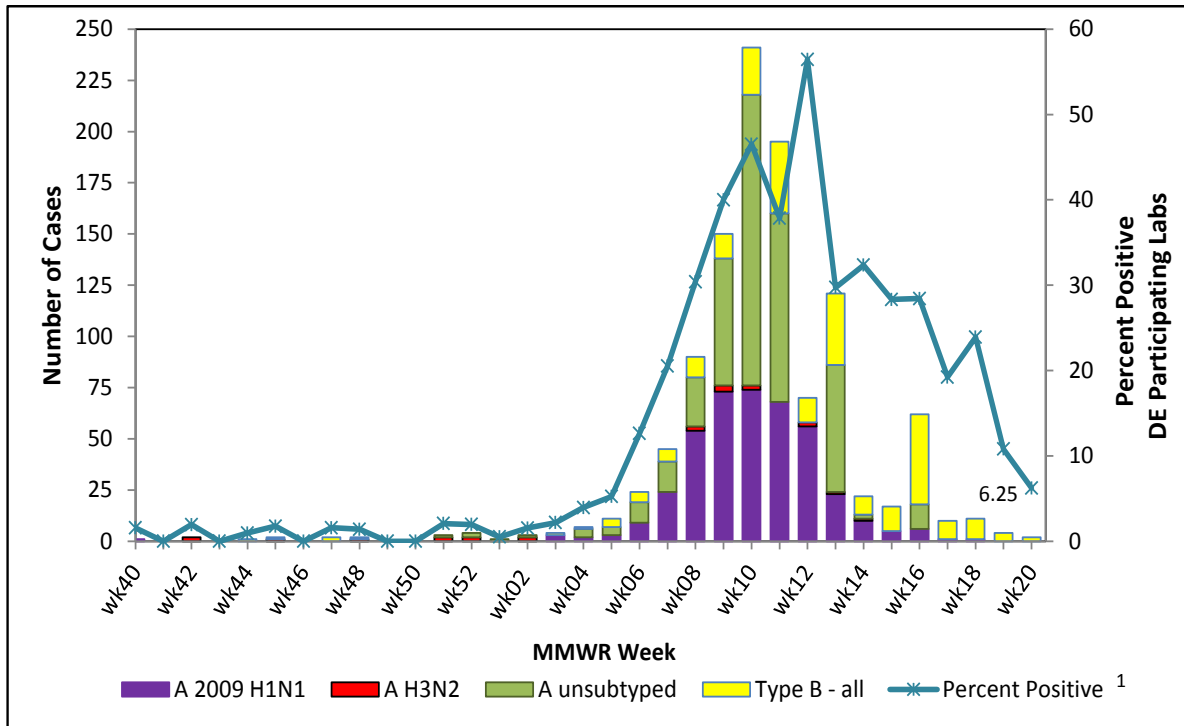
Confirmed Flu Cases by Age Group		Wk 40-52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	Wk 19	Wk 20	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	2	0	0	2	1	0	5	7	22	41	76	55	69	36	31	20	32	16	15	11	8	449	2,221	
	5-24 years	6	2	1	0	1	3	7	8	34	56	131	105	93	47	37	40	50	34	26	33	17	731		
	25-49 years	6	1	1	1	1	2	5	15	37	63	103	79	53	58	30	23	21	16	14	10	7	546		
	50-64 years	1	1	0	0	2	1	1	9	15	24	65	39	35	26	24	13	22	12	6	1	1	298		
	65+ years	2	0	1	0	1	0	2	3	10	14	41	31	23	26	10	5	10	11	5	2	0	197		
New Castle County	0-4 years	2	0	0	0	0	0	3	5	13	35	65	45	51	28	27	13	21	12	12	8	7	347	1,458	65.7%
	5-24 years	4	2	0	0	1	3	4	4	23	35	91	68	61	27	22	23	31	25	19	19	12	474		
	25-49 years	0	0	0	0	1	1	3	5	23	41	51	48	26	33	17	8	12	10	9	2	6	300		
	50-64 years	0	1	0	0	1	0	1	5	9	17	43	32	24	14	16	7	13	8	3	1	1	196		
	65+ years	2	0	1	0	0	0	1	3	8	11	26	25	16	22	7	4	6	5	4	0	0	141		
Kent County	0-4 years	0	0	0	2	1	0	1	1	3	5	4	6	7	4	4	4	7	2	0	2	1	54	468	21.1%
	5-24 years	1	0	1	0	0	0	1	2	5	7	26	25	23	11	14	13	13	7	7	10	2	168		
	25-49 years	2	0	0	0	0	0	2	5	8	13	30	18	21	14	9	12	6	2	2	4	1	149		
	50-64 years	0	0	0	0	0	0	0	4	2	5	17	6	4	9	4	3	4	1	3	0	0	62		
	65+ years	0	0	0	0	1	0	0	0	1	2	9	4	5	3	2	1	2	2	1	2	0	35		
Sussex County	0-4 years	0	0	0	0	0	0	1	1	6	1	7	4	11	4	0	3	4	2	3	1	0	48	295	13.3%
	5-24 years	1	0	0	0	0	0	2	2	6	14	14	12	9	9	1	4	6	2	0	4	3	89		
	25-49 years	0	1	1	1	0	1	0	5	6	9	22	13	6	11	4	3	3	4	3	4	0	97		
	50-64 years	1	0	0	0	1	1	0	0	4	2	5	1	7	3	4	3	5	3	0	0	0	40		
	65+ years	0	0	0	0	0	0	1	0	1	1	6	2	2	1	1	0	2	4	0	0	0	21		

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	Wk 17	Wk 18	Wk 19	Wk 20	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	1	1	3	0	48	377	
	5-24 years	1	0	0	0	0	0	1	1	1	7	12	5	5	2	3	6	3	1	2	5	2	57		
	25-49 years	0	0	0	0	0	0	2	1	3	9	10	5	7	8	5	2	4	1	1	0	0	58		
	50-64 years	0	0	0	0	0	0	1	3	6	11	22	14	14	7	8	0	3	6	1	0	1	97		
	65+ years	2	0	1	0	1	0	1	1	7	11	19	20	11	15	5	2	7	9	4	1	0	117		
New Castle County	0-4 years	0	0	0	0	0	0	0	1	0	6	5	9	5	1	3	3	2	1	0	2	0	38	295	78.3%
	5-24 years	1	0	0	0	0	0	1	1	1	4	10	4	5	2	3	5	3	1	2	4	2	49		
	25-49 years	0	0	0	0	0	0	1	1	2	7	9	5	6	5	4	2	1	1	1	0	0	45		
	50-64 years	0	0	0	0	0	0	1	2	3	7	19	11	11	5	5	0	2	5	1	0	1	73		
	65+ years	2	0	1	0	0	0	1	1	6	8	14	18	8	14	4	1	4	5	3	0	0	90		
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	2	1	0	0	1	6	52	13.8%
	5-24 years	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	4		
	25-49 years	0	0	0	0	0	0	1	0	1	2	0	0	1	2	1	0	2	0	0	0	0	10		
	50-64 years	0	0	0	0	0	0	0	1	1	2	2	3	1	2	2	0	1	0	0	0	0	15		
	65+ years	0	0	0	0	1	0	0	0	0	2	4	2	2	0	0	1	2	1	1	1	0	17		
Sussex County	0-4 years	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	4	30	8.0%
	5-24 years	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	0	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	0	0	0	0	3		
	50-64 years	0	0	0	0	0	0	0	0	2	2	1	0	2	0	1	0	0	1	0	0	0	9		
	65+ years	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	0	1	3	0	0	0	10		

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	Wk 17	Wk 18	Wk 19	Wk 20	YTD
	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	2	0	0	0	6

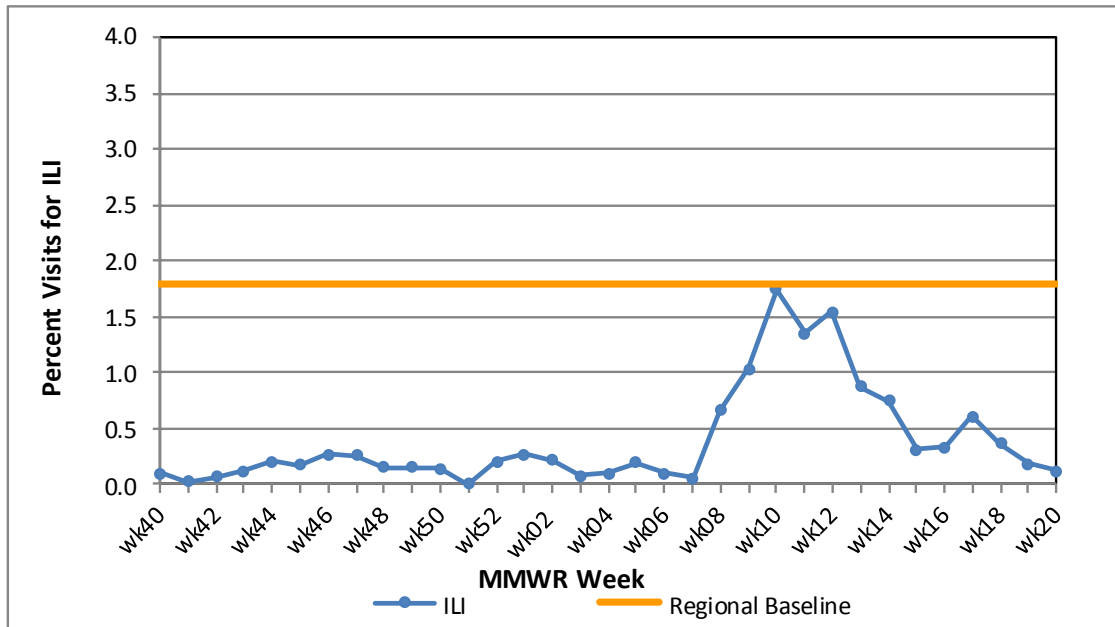
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2015-16

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)	2,221

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

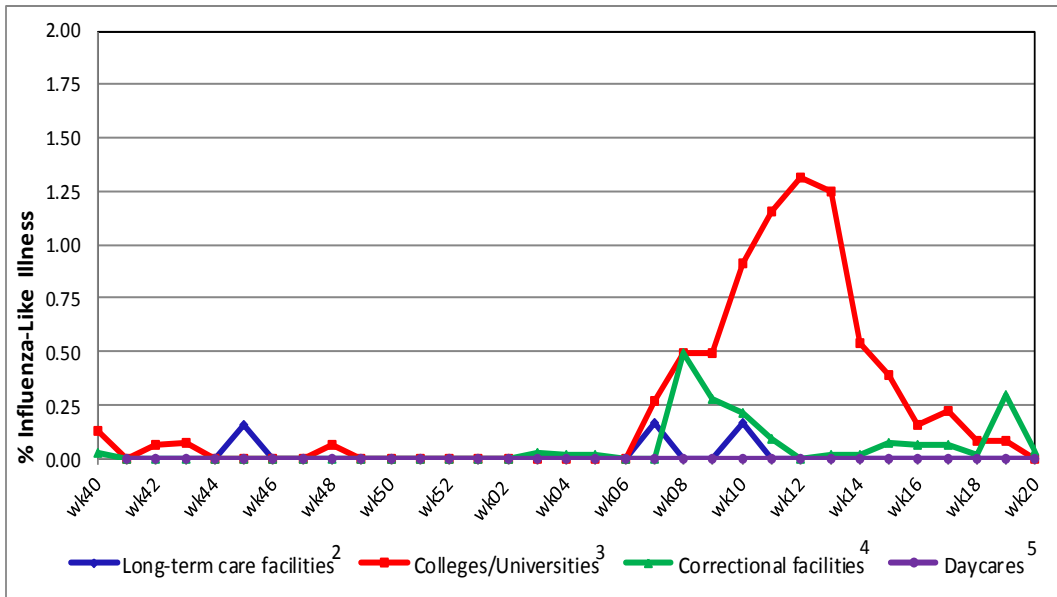
An ILINet (sentinel) provider conducts surveillance for influenza-like illness (ILI) in collaboration with the Division of Public Health and the Centers for Disease Control and Prevention (CDC). Data reported by ILINet providers, in combination with other influenza surveillance data, provide a national 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 Ten of 17 sentinel providers reported.
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.

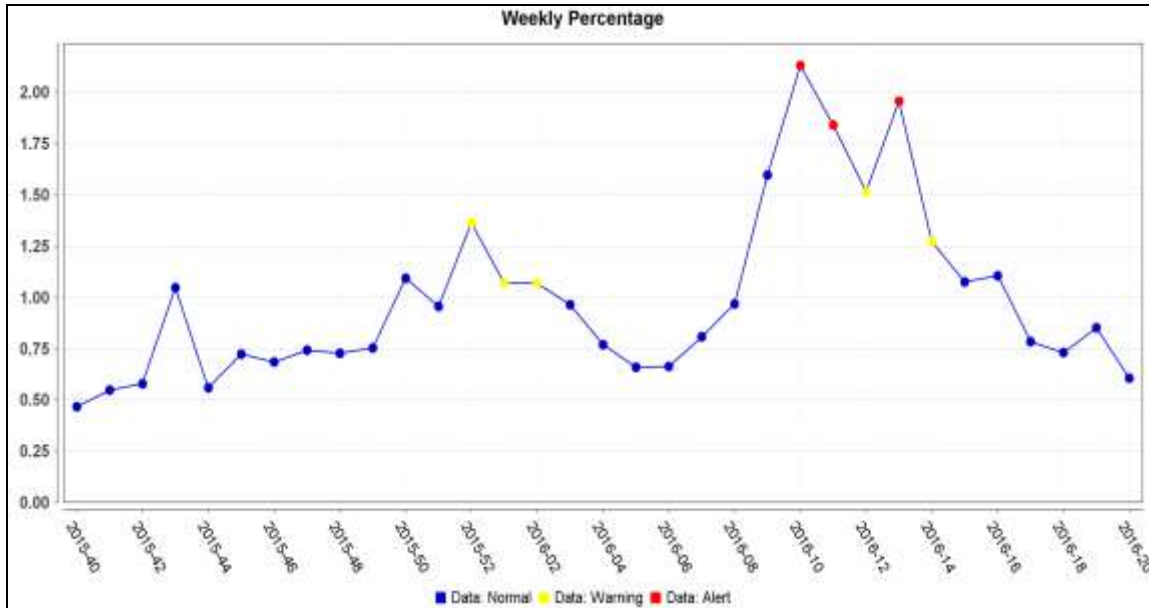
² % ILI= percentage of residents with ILI symptoms. Five long-term care facilities reported.

³ % ILI= percentage of student visits for ILI; One university 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

Influenza activity in the northern hemisphere continued to decrease. A predominance of influenza B virus activity continued to be reported in most of the northern hemisphere and in some tropical areas. In a few countries in the southern hemisphere, slight increases in influenza-like illness (ILI) activity were reported.

In North America, overall influenza activity continued to decrease. In Canada, Mexico and the United States an increase in predominantly influenza B, over influenza A was observed. In recent weeks, elevated epidemiological indicators were observed (RSV in the United States and pneumonia in Mexico).

In Central America and the Caribbean, influenza and other respiratory virus activity remained generally low, although levels of A(H1N1)pdm09 virus activity remained elevated in El Salvador and Guatemala. Active circulation of influenza A(H1N1)pdm09 activity was also reported in several countries in the Caribbean.

In parts of tropical South America, low but increasing influenza A(H1N1)pdm09 activity was reported in Bolivia and Ecuador. In Peru, influenza detections decreased. In Brazil, influenza activity continued at elevated levels with a predominance of influenza A(H1N1)pdm09 virus. Respiratory syncytial virus (RSV) activity remained elevated in Colombia. In temperate South America, respiratory virus activity remained low. ILI activity increased slightly in a few countries but remained below seasonal thresholds.

In Europe, influenza activity continued to decrease with most countries reporting low intensity. Influenza B accounted for 95% of influenza detections in specimens from sentinel sources and 72% from non-sentinel sources.

In northern temperate Asia and in tropical countries of South Asia, influenza activity decreased with influenza B virus predominant.

In North Africa, influenza activity continued to decrease in general, except in Egypt where in recent weeks influenza B activity continued. Influenza A virus was reported predominant in Eastern and Western Africa.

In temperate countries of Southern Africa and Oceania, influenza virus activity remained low. Some islands in the Pacific reported increased ILI activity.

Source: World Health Organization (WHO), 2016. Influenza Update Number 263 (5/16/16 – based on data up to 5/1/16). Retrieved on 5/23/16 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.