



# Delaware Weekly Influenza Report

## MMWR Week 7 (February 11 - 17, 2018)

### Delaware Division of Public Health

#### National Influenza Synopsis 2017-2018:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. During MMWR Week 7 (February 11 - 17, 2018) influenza activity remained elevated in the United States. The most frequently identified influenza virus subtype reported by public health laboratories during week 7 was influenza A(H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories remained elevated. **Widespread influenza activity** was reported by 48 states and Puerto Rico. **Local influenza activity** was reported by Hawaii, Oregon, the District of Columbia and Guam. **No influenza activity** was reported by the U.S. Virgin Islands. Both national and state data are provisional and subject to change as additional reports are received.

#### Delaware Influenza Surveillance 2017-2018:

During MMWR Week 7, there were 1,521 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 5,758 confirmed cases for the 2017-2018 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI is 4.7% compared with Delaware's 2017-2018 baseline of 2.0%. Nationally, ILI is 6.4% compared with the 2017-2018 national baseline of 2.2%.

#### Level of Influenza Activity in Delaware, MMWR Week 7:

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

<sup>1</sup> 2017-2018 Region 3 (DE, DC, MD, PA, VA and WV) baseline = 2.0%.

<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 2017-18**

Confirmed Flu Cases by Subtype / Lineage		Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	Wk 45	Wk 46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	0	0	0	1	0	0	0	1	1	1	2	3	8	5	15	16	32	41	37	42	205	5,758	
	A / 2012 H3N2	0	0	1	0	1	0	2	1	6	15	9	11	14	23	27	25	42	35	37	47	296		
	A / no subtype	0	0	0	4	2	4	7	4	6	17	31	59	81	110	237	247	448	682	825	867	3,631		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	5	5	2	19		
	B / Yamagata	0	0	0	0	0	0	0	0	1	0	3	7	8	8	6	6	4	9	31	27	110		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	5	1	11	13		
B / no lineage	0	0	0	0	1	0	1	0	2	2	4	18	32	44	71	83	136	222	324	523	1,463			
New Castle County	A / 2009 H1N1	0	0	0	1	0	0	0	1	1	1	0	4	2	4	6	7	18	14	20	79	2,153	37.4%	
	A / 2012 H3N2	0	0	1	0	0	0	2	1	5	13	9	9	13	19	20	20	26	25	25	40			228
	A / no subtype	0	0	0	1	0	1	3	3	2	7	2	10	16	39	107	97	138	179	277	266			1,148
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	2	1			8
	B / Yamagata	0	0	0	0	0	0	0	0	1	0	2	6	5	8	5	6	3	8	25	21			90
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	5	1	11			10
B / no lineage	0	0	0	0	1	0	1	0	0	1	1	10	22	16	27	43	54	70	131	192	569			
Kent County	A / 2009 H1N1	0	0	0	0	0	0	0	1	0	0	0	2	3	3	8	6	18	15	20	17	93	1,526	26.5%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0	2	7	5	6	3	28		
	A / no subtype	0	0	0	3	1	2	2	1	2	2	8	16	27	26	48	65	153	212	247	257	1,072		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
B / no lineage	0	0	0	0	0	0	0	0	0	0	2	1	3	10	12	21	20	54	62	139	324			
Sussex County	A / 2009 H1N1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4	7	8	3	5	33	2,079	36.1%
	A / 2012 H3N2	0	0	0	0	1	0	0	0	1	0	0	2	0	2	7	3	9	5	6	4	40		
	A / no subtype	0	0	0	0	1	1	2	0	2	8	21	33	38	45	82	85	157	291	301	344	1,411		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	2	0	8		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	1	3	0	1	0	1	1	3	3	14		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
B / no lineage	0	0	0	0	0	0	0	0	2	1	1	7	7	18	32	19	62	98	131	192	570			

**Table 1b. Influenza positive<sup>1</sup> cases reported<sup>2</sup> statewide and county by age group, Delaware 2017-18**

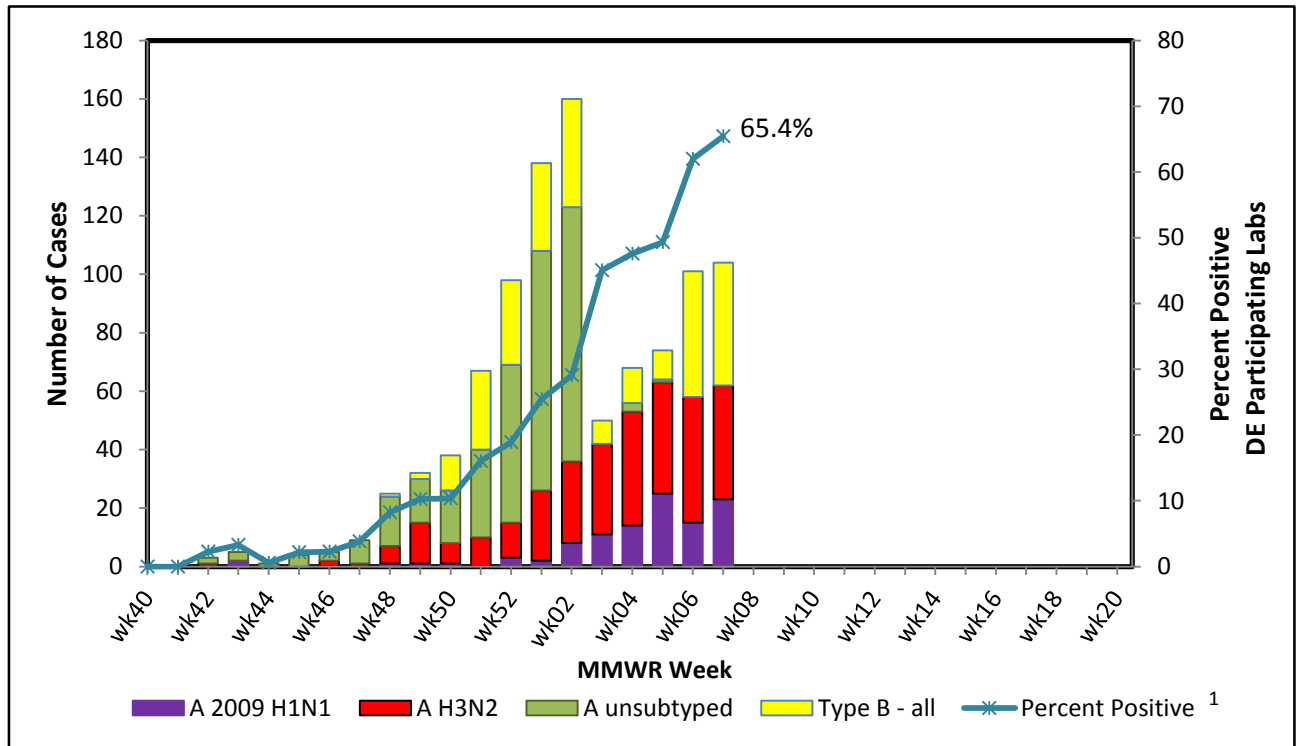
Confirmed Flu Cases by Age Group		Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	Wk 45	Wk 46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	0	0	0	0	1	1	0	0	1	4	3	10	15	19	47	58	122	180	257	295	1,013	5,758	
	5-24 years	0	0	0	0	1	0	1	2	2	7	9	19	26	32	79	102	211	385	490	607	1,973		
	25-49 years	0	0	0	3	0	0	2	0	3	5	5	20	34	38	68	83	135	162	221	239	1,018		
	50-64 years	0	0	0	0	0	1	3	2	5	4	15	13	34	36	56	62	96	116	126	151	720		
	65+ years	0	0	1	2	2	2	4	2	5	15	17	36	35	66	107	77	106	152	176	229	1,034		
New Castle County	0-4 years	0	0	0	0	0	1	0	0	2	2	5	7	8	13	25	36	49	116	119	383	2,153	37.4%	
	5-24 years	0	0	0	0	0	0	1	1	2	4	3	8	13	15	35	47	69	95	160	202			655
	25-49 years	0	0	0	1	0	0	2	0	1	4	0	8	20	12	33	37	51	53	89	91			402
	50-64 years	0	0	0	0	0	0	1	2	2	1	6	6	12	18	33	27	35	52	58	51			304
	65+ years	0	0	1	1	1	0	2	1	4	11	4	8	9	32	49	41	44	52	62	87			409
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	0	2	4	4	14	15	48	63	71	83	304	1,526	26.5%
	5-24 years	0	0	0	1	1	0	0	1	0	0	1	6	9	9	15	29	64	115	144	175	569		
	25-49 years	0	0	0	1	0	0	0	0	0	1	2	2	3	12	14	20	34	48	59	76	273		
	50-64 years	0	0	0	0	0	1	1	0	2	2	3	2	6	7	10	17	25	24	26	38	164		
	65+ years	0	0	0	1	0	1	1	1	0	1	4	7	12	9	15	13	28	36	39	48	216		
Sussex County	0-4 years	0	0	0	0	1	0	0	0	1	2	1	3	4	7	20	18	38	68	70	93	326	2,079	36.1%
	5-24 years	0	0	0	0	0	0	0	0	0	3	5	5	4	8	29	26	78	175	186	230	749		
	25-49 years	0	0	0	0	0	0	0	0	2	0	3	10	11	14	21	26	50	61	73	72	343		
	50-64 years	0	0	0	0	0	0	1	0	1	1	6	5	16	11	13	18	36	40	42	62	252		
	65+ years	0	0	0	0	1	1	1	0	1	3	9	21	14	25	43	23	34	64	75	94	409		

<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 2017-18\*



<sup>1</sup> Based on patients with positive nucleic acid or viral culture test results reported to the Delaware Division of Public Health.  
Data Source: Season 2017 - 2018 Influenza Positive Specimens from Delaware, Reported by WHO/NREVSS Collaborating Laboratories

Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2017-18

Hospitalized Flu Cases by Age Group		Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	Wk 45	Wk 46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	8	8	17	5	43	813		
	5-24 years	0	0	0	0	0	0	0	0	0	1	1	0	2	1	1	3	4	6	7	7	33			
	25-49 years	0	0	0	0	0	0	0	0	0	0	2	0	1	3	2	10	4	6	8	21	11			68
	50-64 years	0	0	0	0	0	0	0	1	3	1	8	2	9	11	16	10	21	19	27	36	164			
	65+ years	0	0	1	2	1	1	1	2	3	11	9	10	16	37	59	40	56	73	85	98	505			
New Castle County	0-4 years	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	7	4	15	4	34	455	56.0%	
	5-24 years	0	0	0	0	0	0	0	0	0	1	0	0	2	1	1	2	2	6	5	5	25			
	25-49 years	0	0	0	0	0	0	0	0	0	2	0	1	3	0	6	3	5	3	13	7	43			
	50-64 years	0	0	0	0	0	0	0	1	2	0	3	2	6	8	13	8	8	13	17	17	98			
	65+ years	0	0	1	1	1	0	1	1	3	10	3	4	4	23	32	23	23	34	44	47	255			
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	6	177	21.8%	
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	5			
	25-49 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	4	6	2			15
	50-64 years	0	0	0	0	0	0	0	0	1	1	2	0	0	2	3	1	8	3	3	10	34			
	65+ years	0	0	0	1	0	1	0	1	0	0	2	2	7	5	10	4	18	22	21	23	117			
Sussex County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3	181	22.3%	
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3			
	25-49 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	1	2	2	10			
	50-64 years	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	1	5	3	7	9	32			
	65+ years	0	0	0	0	0	0	0	0	0	1	4	4	5	9	17	13	15	17	20	28	133			

Table 3. Influenza-related deaths, Delaware 2017-18

Influenza-Related Deaths	Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	Wk 45	Wk 46	Wk 47	Wk 48	Wk 49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	YTD
	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	3	6	6	19

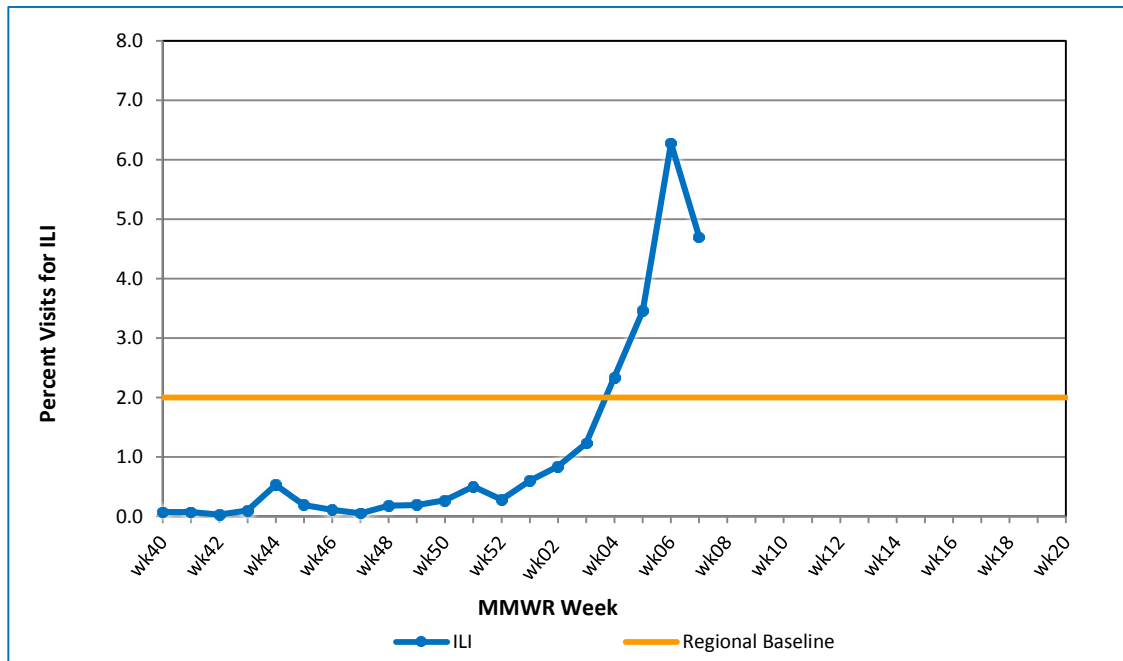
**Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2017-18**

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	1,842
2016 – 2017	4,590
<b>2017 – 2018 (YTD)</b>	<b>5,758</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.

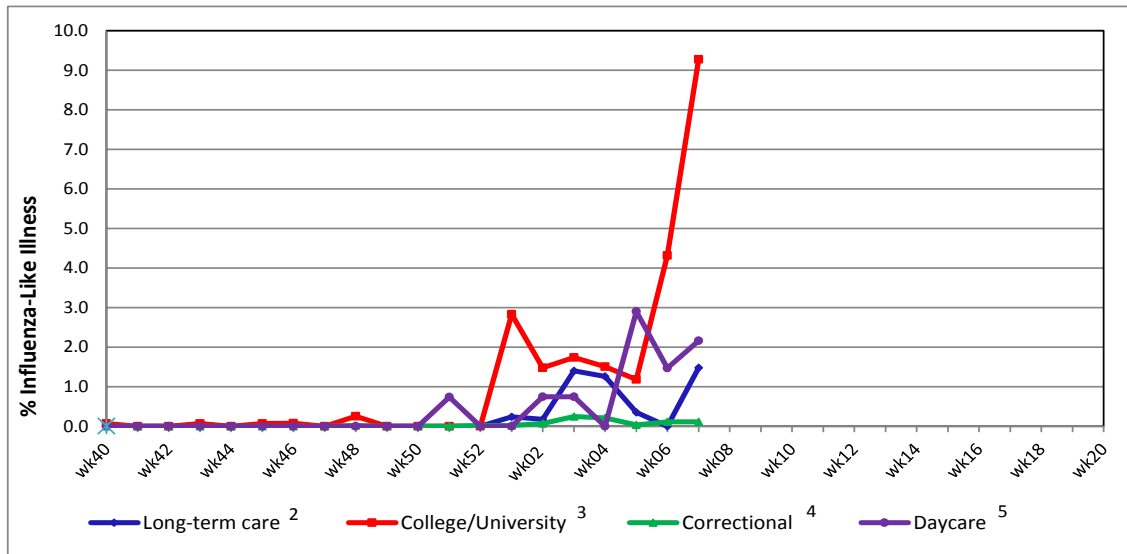
**Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers<sup>1</sup> participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2017-18**



<sup>1</sup> Twelve of 13 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 also includes DC, MD, PA, VA and WV.

Figure 3. Influenza-like illness reported by influenza surveillance ILI reporting partners<sup>1</sup>, Delaware 2017-18



<sup>1</sup> ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities.  
<sup>2</sup> % ILI= percentage of residents with ILI symptoms. Five 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; Nine correctional facilities reported.  
<sup>5</sup> % ILI= percentage of children absent with ILI; One daycare provider reported.

Figure 4a. Percentage of emergency department (ED) visits due to ILI/Flu by MMWR Week, Delaware 2017-18

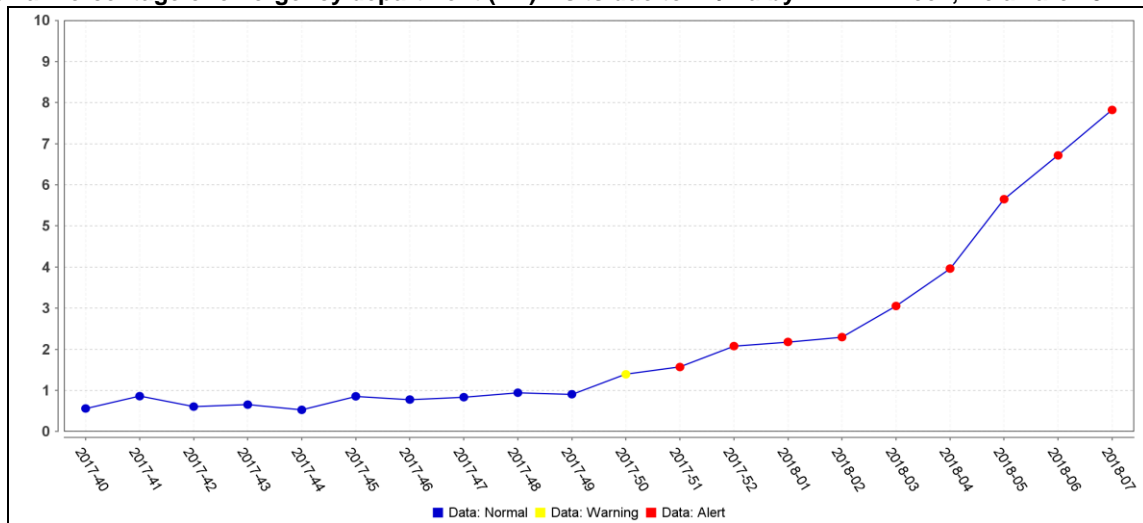
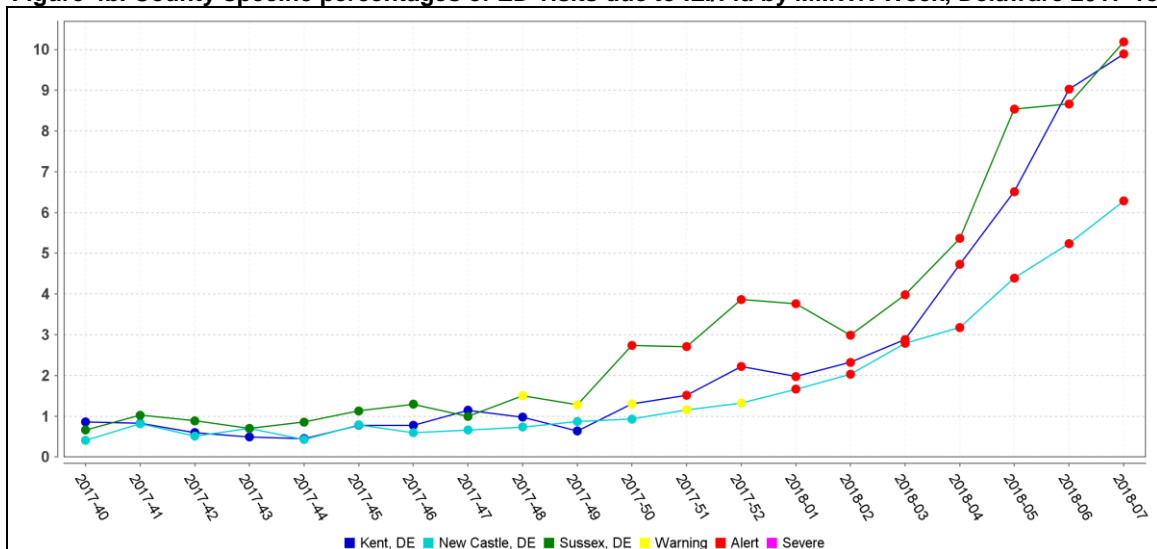


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2017-18



## **Summary of International Influenza Activity**

Influenza activity remained high in the temperate zone of the northern hemisphere while in the temperate zone of the southern hemisphere activity was at inter-seasonal levels. Worldwide, influenza A accounted still for the majority of influenza detections but influenza B (mostly B-Yamagata lineage) increased in recent weeks.

Up to now, the majority of countries which are in the influenza season, reported influenza- like illness reaching moderate levels in comparison with previous years, with few reaching levels exceeding those of previous years. Some countries however have reported levels of hospitalization and ICU admissions reaching or exceeding peak levels of previous influenza seasons. WHO recommends countries with current influenza activity or entering their season to adopt necessary measures for ensuring appropriate case management, compliance with infection control measures and seasonal influenza vaccination for high risk groups.

**Reference:** World Health Organization (WHO), 2017. Influenza Update number 309 (2/19/18). Retrieved February 23, 2018, 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:** 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.