



Delaware Weekly Influenza Report MMWR Week 8 (February 18 - 24, 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 8 (February 18 - 24, 2018) influenza activity decreased in the United States. While influenza A(H3) viruses continue to be predominant this season, during week 8 the overall proportion of influenza A viruses is declining and the proportion of influenza B viruses is increasing. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Widespread influenza activity** was reported by 45 states and Puerto Rico. **Regional influenza activity** was reported by Minnesota, Texas and Guam. **Local influenza activity** was reported by Hawaii, Oregon, Vermont and the District of Columbia. **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 8, there were 893 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 6,674 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 2.7% compared with Delaware's 2017-2018 baseline of 2.0%. Nationally, ILI is 5.0% compared with the 2017-2018 national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 8:

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

¹ 2017-2018 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.

<u>In this report:</u>	<u>page</u>
Table 1a. Influenza positive cases reported statewide and county, by subtype / lineage and MMWR week, Delaware 2017-18	2
Table 1b. Influenza positive cases reported statewide and county, by age group and MMWR week, Delaware 2017-18	2
Figure 1. Confirmed cases of influenza by type and subtype / lineage, by MMWR week, Delaware 2017-18	3
Table 2. Influenza-related hospitalizations, statewide and county, by age group and MMWR week, Delaware 2017-18	3
Table 3. Influenza-related deaths by MMWR week, Delaware 2017-18	3
Table 4. Numbers of influenza cases reported by flu season, Delaware 2004-05 through 2017-18	4
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers participating in CDC's ILINet, Delaware 2017-18	4
Figure 3. Influenza-like illness reported by ILI reporting partners by MMWR week, Delaware 2017-18	5
Figure 4a. Percentage of emergency department (ED) visits due to ILI/Flu by MMWR week, Delaware 2017-18	5
Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR week, Delaware 2017-18	5
Summary of International Influenza Activity	6

Table 1a. Influenza positive¹ cases reported² statewide and county by subtype (A) or lineage (B)³, Delaware 2017-18

Confirmed Flu Cases by Subtype / Lineage		Wk 40-49	Wk 50	Wk 51	Wk 52	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	4	2	3	8	5	15	16	32	45	37	43	14	223	6,674	
	A / 2012 H3N2	26	9	11	14	23	27	25	42	39	37	53	31	337		
	A / no subtype	44	31	59	81	110	238	248	447	682	826	864	468	4,098		
	Co-infection	0	0	0	0	0	1	4	4	5	5	2	2	24		
	B / Yamagata	1	3	7	8	8	6	6	4	9	31	29	23	135		
	B / Victoria	0	0	0	1	1	0	2	5	1	11	13	11	45		
B / no lineage	6	4	18	32	44	72	82	137	222	325	526	344	1,812			
New Castle County	A / 2009 H1N1	3	1	0	4	2	4	6	7	18	14	20	4	82	2,500	37.5%
	A / 2012 H3N2	22	9	9	13	19	20	20	26	26	25	41	21	251		
	A / no subtype	17	2	10	16	39	108	98	138	179	278	265	145	1,295		
	Co-infection	0	0	0	0	0	0	3	2	0	2	1	0	9		
	B / Yamagata	1	2	6	5	8	5	6	3	8	25	21	17	107		
	B / Victoria	0	0	0	1	1	0	2	5	1	11	10	9	40		
B / no lineage	3	1	10	22	16	28	43	55	70	131	192	145	716			
Kent County	A / 2009 H1N1	1	0	2	3	3	8	6	18	17	20	18	4	100	1,742	26.1%
	A / 2012 H3N2	2	0	0	1	2	0	2	7	8	6	7	8	43		
	A / no subtype	13	8	16	27	26	48	65	153	212	247	255	116	1,186		
	Co-infection	0	0	0	0	0	0	0	1	0	1	1	1	4		
	B / Yamagata	0	0	0	0	0	0	0	0	0	3	5	2	10		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	1	1		
B / no lineage	0	2	1	3	10	12	21	20	54	63	138	74	398			
Sussex County	A / 2009 H1N1	0	1	1	1	0	3	4	7	10	3	5	6	41	2,432	36.4%
	A / 2012 H3N2	2	0	2	0	2	7	3	9	5	6	5	2	43		
	A / no subtype	14	21	33	38	45	82	85	156	291	301	344	207	1,617		
	Co-infection	0	0	0	0	0	1	1	1	5	2	0	1	11		
	B / Yamagata	0	1	1	3	0	1	0	1	1	3	3	4	18		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	3	1	4		
B / no lineage	3	1	7	7	18	32	18	62	98	131	196	125	698			

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2017-18

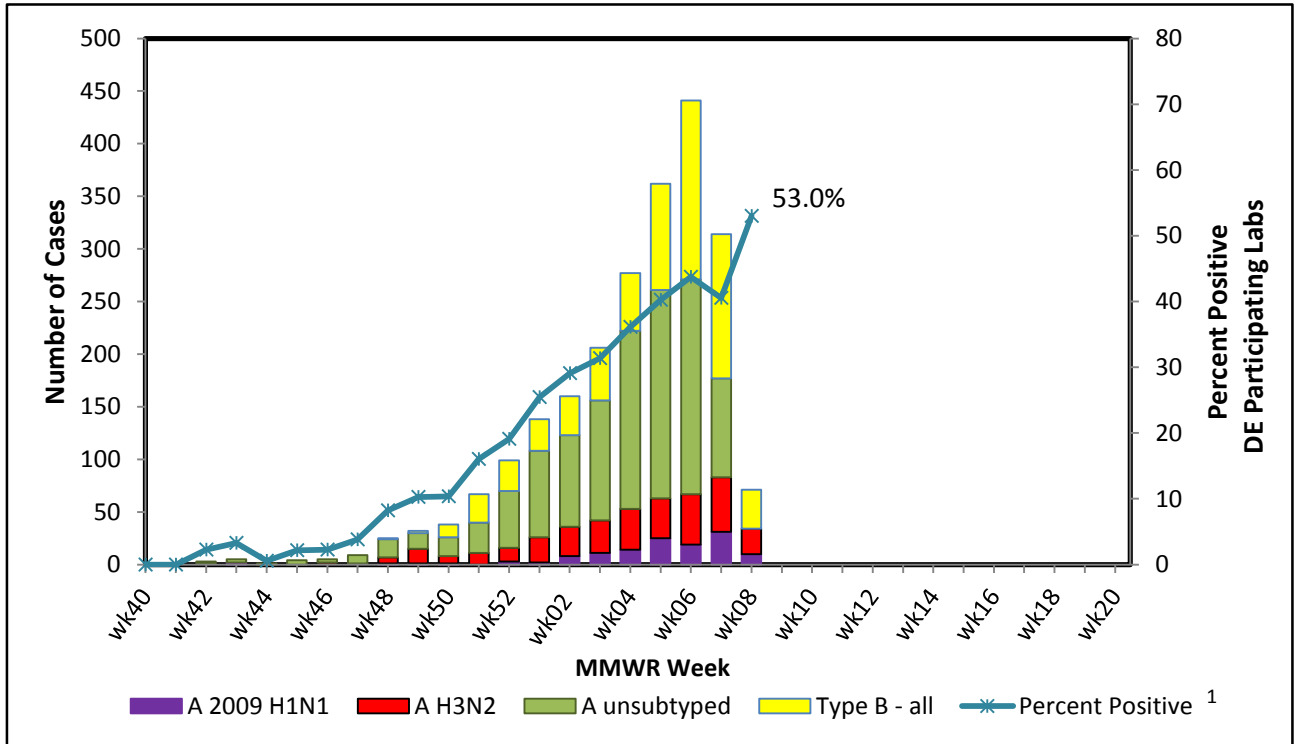
Confirmed Flu Cases by Age Group		Wk 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	7	3	10	15	19	47	58	122	181	257	296	189	1,204	6,674	
	5-24 years	13	9	19	26	32	81	103	212	386	491	609	329	2,310		
	25-49 years	13	5	20	34	38	68	83	135	167	221	242	125	1,151		
	50-64 years	15	15	13	34	36	56	62	96	116	127	152	101	823		
	65+ years	33	17	36	35	66	107	77	106	153	176	231	149	1,186		
New Castle County	0-4 years	3	2	5	7	8	13	25	36	49	116	119	95	478	2,500	37.5%
	5-24 years	8	3	8	13	15	37	48	70	95	160	202	114	773		
	25-49 years	8	0	8	20	12	33	37	51	53	89	91	38	440		
	50-64 years	6	6	6	12	18	33	27	35	52	59	51	34	339		
	65+ years	21	4	8	9	32	49	41	44	53	62	87	60	470		
Kent County	0-4 years	0	0	2	4	4	14	15	48	64	71	84	39	345	1,742	26.1%
	5-24 years	2	1	6	9	9	15	29	64	116	145	177	76	649		
	25-49 years	3	2	2	3	12	14	20	34	51	59	77	38	315		
	50-64 years	6	3	2	6	7	10	17	25	24	26	38	28	192		
	65+ years	5	4	7	12	9	15	13	28	36	39	48	25	241		
Sussex County	0-4 years	4	1	3	4	7	20	18	38	68	70	93	55	381	2,432	36.4%
	5-24 years	3	5	5	4	8	29	26	78	175	186	230	139	888		
	25-49 years	2	3	10	11	14	21	26	50	63	73	74	49	396		
	50-64 years	3	6	5	16	11	13	18	36	40	42	63	39	292		
	65+ years	7	9	21	14	25	43	23	34	64	75	96	64	475		

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 2017-18*



¹ 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 40-49	Wk 50	Wk 51	Wk 52	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	0	1	1	1	1	0	1	8	8	17	5	7	50	926	
	5-24 years	1	1	0	2	1	1	3	4	6	7	7	7	40		
	25-49 years	2	0	1	3	2	10	4	6	8	20	11	9	76		
	50-64 years	5	8	2	9	11	16	10	21	19	27	36	26	190		
	65+ years	22	9	10	16	37	59	40	56	73	85	98	65	570		
New Castle County	0-4 years	0	0	1	1	1	0	1	7	4	15	4	6	40	512	55.3%
	5-24 years	1	0	0	2	1	1	2	2	6	5	5	4	29		
	25-49 years	2	0	1	3	0	6	3	5	3	13	7	2	45		
	50-64 years	3	3	2	6	8	13	8	8	13	17	17	11	109		
	65+ years	18	3	4	4	23	32	23	23	34	44	47	34	289		
Kent County	0-4 years	0	0	0	0	0	0	0	1	4	0	1	0	6	200	21.6%
	5-24 years	0	0	0	0	0	0	1	1	0	1	2	2	7		
	25-49 years	0	0	0	0	2	1	0	0	4	5	2	6	20		
	50-64 years	2	2	0	0	2	3	1	8	3	3	10	5	39		
	65+ years	3	2	2	7	5	10	4	18	22	21	23	11	128		
Sussex County	0-4 years	0	1	0	0	0	0	0	0	0	2	0	1	4	214	23.1%
	5-24 years	0	1	0	0	0	0	0	1	0	1	0	1	4		
	25-49 years	0	0	0	0	0	3	1	1	1	2	2	1	11		
	50-64 years	0	3	0	3	1	0	1	5	3	7	9	10	42		
	65+ years	1	4	4	5	9	17	13	15	17	20	28	20	153		

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

Influenza-Related Deaths	Wk 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	YTD
	1	0	1	0	0	1	1	0	3	6	6	5	24

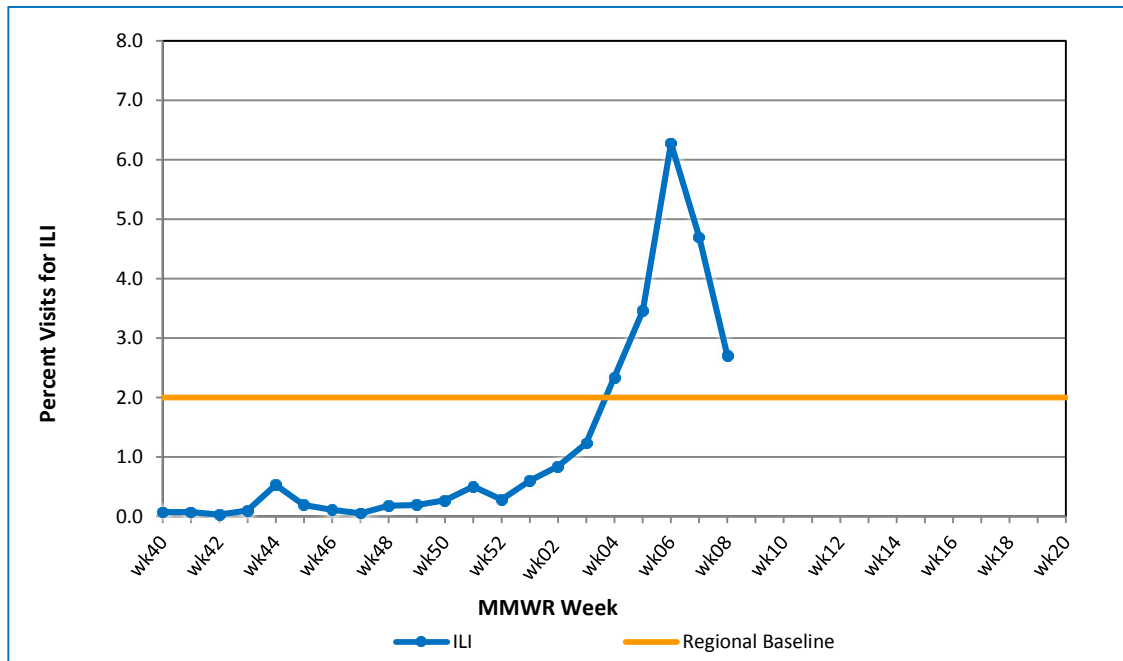
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2017-18

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
2017 – 2018 (YTD)	6,674

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.

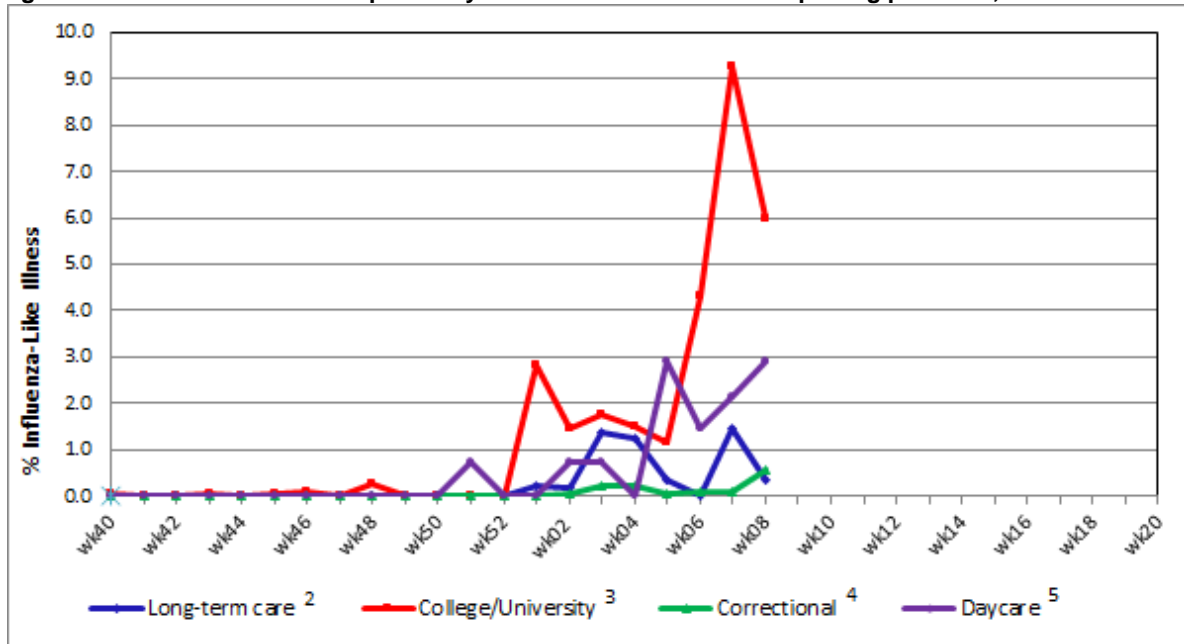
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2017-18



¹ Eleven of 13 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 also includes DC, MD, PA, VA and WV.

Figure 3. Influenza-like illness reported by influenza surveillance ILI reporting partners¹, Delaware 2017-18



- ¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities.
- 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; Nine correctional facilities reported.
- ⁵ % 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

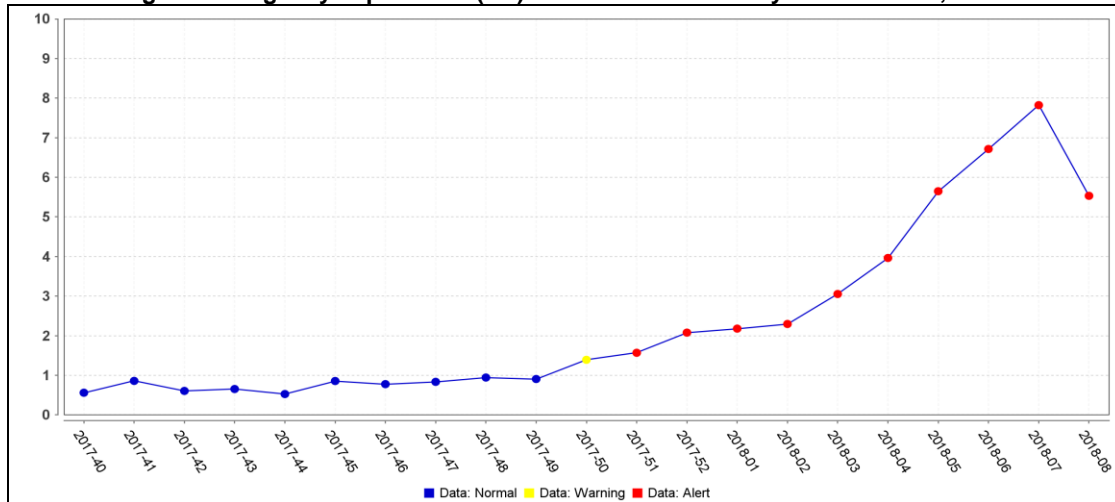
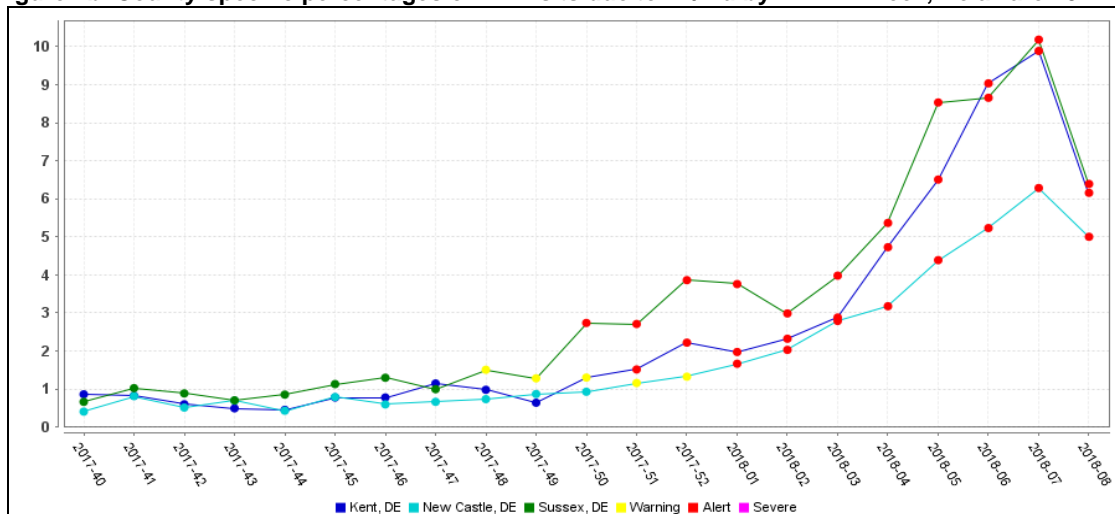


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2017-18



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/. Reports are updated biweekly.

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 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.