



Delaware Weekly Influenza Report

MMWR Week 18 (April 28 – May 4, 2019)

Delaware Division of Public Health

National Influenza Synopsis 2018-2019:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. During MMWR Week 18 (April 28 – May 4, 2019) Influenza activity continues to decrease in the United States. While influenza A(H1N1)pdm09 viruses predominated from October to mid-February, influenza A(H3N2) viruses have been more commonly identified since late February. Small numbers of influenza B viruses also have been reported. Geographic spread during week 18 is: **Widespread influenza activity** was reported by Massachusetts and New York. **Regional influenza activity** was reported by Puerto Rico and seven states (Arizona, Connecticut, Kentucky, Nevada, Ohio, Utah and Washington). **Local influenza activity** was reported by 18 states (Colorado, Florida, Georgia, Hawaii, Louisiana, Maine, **Maryland**, Michigan, Minnesota, Mississippi, Montana, New Hampshire, New Mexico, North Dakota, **Pennsylvania**, South Carolina, Vermont and Wisconsin). **Sporadic influenza activity** was reported by the District of Columbia, the U.S. Virgin Islands and 22 states (Alabama, Arkansas, California, **Delaware**, Idaho, Illinois, Indiana, Iowa, Kansas, Missouri, Nebraska, **New Jersey**, North Carolina, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Texas, Virginia, West Virginia and Wyoming). **No influenza activity** was reported by Alaska. Guam did not report. Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2018-2019:

During MMWR Week 18 there were three laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 6,385 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI decreased to 0.11% (2018-2019 baseline of 2.0%). Nationally, ILI decreased to 1.6%, below the national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 18:

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.
Influenza-like illness (ILI) is a patient that presents 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 2018-2019 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.

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Table 1a. Influenza positive¹ cases reported² statewide and county by subtype (A) or lineage (B)³, Delaware 2018-19

Confirmed Flu Cases by Subtype / Lineage	Wks 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	YTD	YTD Total	YTD County %	
STATEWIDE																							
A / 2009 H1N1	142	43	33	47	56	50	39	24	42	25	24	30	12	8	6	3	1	2	0	587	6,385		
A / 2012 H3N2	15	4	0	4	7	26	37	60	92	74	45	54	36	33	15	22	7	2	1	534			
A / no subtype	522	155	130	196	253	347	539	502	542	446	468	377	229	150	100	78	23	11	0	5,068			
Co-infection	2	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	5			
B / Yamagata	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	5			
B / Victoria	0	0	0	0	0	0	0	0	0	0	1	2	1	0	3	1	0	0	1	9			
B / no lineage	5	4	4	8	6	4	16	14	11	11	27	15	13	8	8	8	12	2	1	177			
New Castle County																							
A / 2009 H1N1	99	29	26	32	39	34	24	16	20	10	9	11	10	6	4	0	0	1	0	370	2,420	37.9%	
A / 2012 H3N2	11	3	0	3	6	16	27	36	71	52	26	26	21	21	9	11	5	0	1	345			
A / no subtype	158	34	52	67	104	131	209	175	176	143	136	132	68	38	29	20	6	1	0	1,679			
Co-infection	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2			
B / Yamagata	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1			
B / Victoria	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	0	1	6			
B / no lineage	2	1	0	0	0	1	0	1	2	5	1	1	1	1	1	0	0	0	0	17			
Kent County																							
A / 2009 H1N1	29	6	2	6	9	10	15	3	12	11	10	10	2	2	2	1	1	1	0	132	1,695	26.5%	
A / 2012 H3N2	4	1	0	0	0	4	6	17	14	13	17	13	9	6	4	4	1	1	0	114			
A / no subtype	208	47	20	35	51	63	133	103	141	132	142	115	76	50	30	24	7	4	0	1,381			
Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
B / Yamagata	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
B / Victoria	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	2	7	4	2	13	10	2	3	4	1	2	2	2	1	8	1	1	65			
Sussex County																							
A / 2009 H1N1	14	8	5	9	8	6	0	5	10	4	5	9	0	0	0	2	0	0	0	85	2,270	35.6%	
A / 2012 H3N2	0	0	0	1	1	6	4	7	7	9	2	15	6	6	2	7	1	1	0	75			
A / no subtype	156	74	58	94	98	153	197	224	225	171	190	130	85	62	41	34	10	6	0	2,008			
Co-infection	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3			
B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1			
B / Victoria	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	3			
B / no lineage	3	3	2	1	2	1	3	3	7	3	22	13	10	5	5	7	4	1	0	95			

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2018-19

Confirmed Flu Cases by Age Group	Wks 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	YTD	YTD Total	YTD County %	
STATEWIDE																							
0-4 years	165	58	55	69	77	87	121	128	137	114	101	116	59	33	19	23	11	4	0	1,377	6,385		
5-24 years	191	28	36	65	91	161	248	223	255	200	195	129	73	52	43	25	15	1	2	2,033			
25-49 years	164	48	32	57	71	80	114	82	120	93	92	73	49	37	20	17	5	2	0	1,156			
50-64 years	92	33	24	37	46	56	69	81	96	53	81	64	39	28	23	17	6	3	0	848			
65+ years	77	39	20	27	38	43	79	87	80	96	98	96	71	49	27	30	6	7	1	971			
New Castle County																							
0-4 years	71	17	25	25	45	42	58	42	44	45	33	41	26	12	6	7	2	0	0	541	2,420	37.9%	
5-24 years	79	12	14	22	40	64	86	73	108	75	48	38	32	20	18	6	4	0	2	741			
25-49 years	59	16	17	25	25	39	51	36	50	30	27	26	14	7	6	4	1	0	0	433			
50-64 years	34	8	14	17	20	24	31	34	34	21	32	22	12	11	7	6	2	2	0	331			
65+ years	27	14	8	13	20	13	34	44	34	39	33	44	17	16	8	8	2	0	0	374			
Kent County																							
0-4 years	46	18	7	13	11	15	34	25	54	39	35	38	18	9	5	5	6	3	0	381	1,695	26.5%	
5-24 years	71	7	5	16	19	28	64	52	53	67	60	52	21	13	9	14	5	0	0	556			
25-49 years	64	10	7	13	18	14	35	17	27	25	33	18	12	16	7	4	2	0	0	322			
50-64 years	35	6	2	4	9	13	17	17	23	10	18	18	14	6	8	5	2	0	0	207			
65+ years	28	13	3	2	7	9	17	22	12	18	27	13	24	16	9	2	2	4	1	229			
Sussex County																							
0-4 years	48	23	23	31	21	30	29	61	39	30	33	37	15	12	8	11	3	1	0	455	2,270	35.6%	
5-24 years	41	9	17	27	32	69	98	98	94	58	87	39	20	19	16	5	6	1	0	736			
25-49 years	41	22	8	19	28	27	28	29	43	38	32	29	23	14	7	9	2	2	0	401			
50-64 years	23	19	8	16	17	19	21	30	39	22	31	24	13	11	8	6	2	1	0	310			
65+ years	22	12	9	12	11	21	28	21	34	39	38	39	30	17	10	20	2	3	0	368			

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 are categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases¹ of influenza by type and subtype/lineage, Delaware 2018-2019 influenza season*

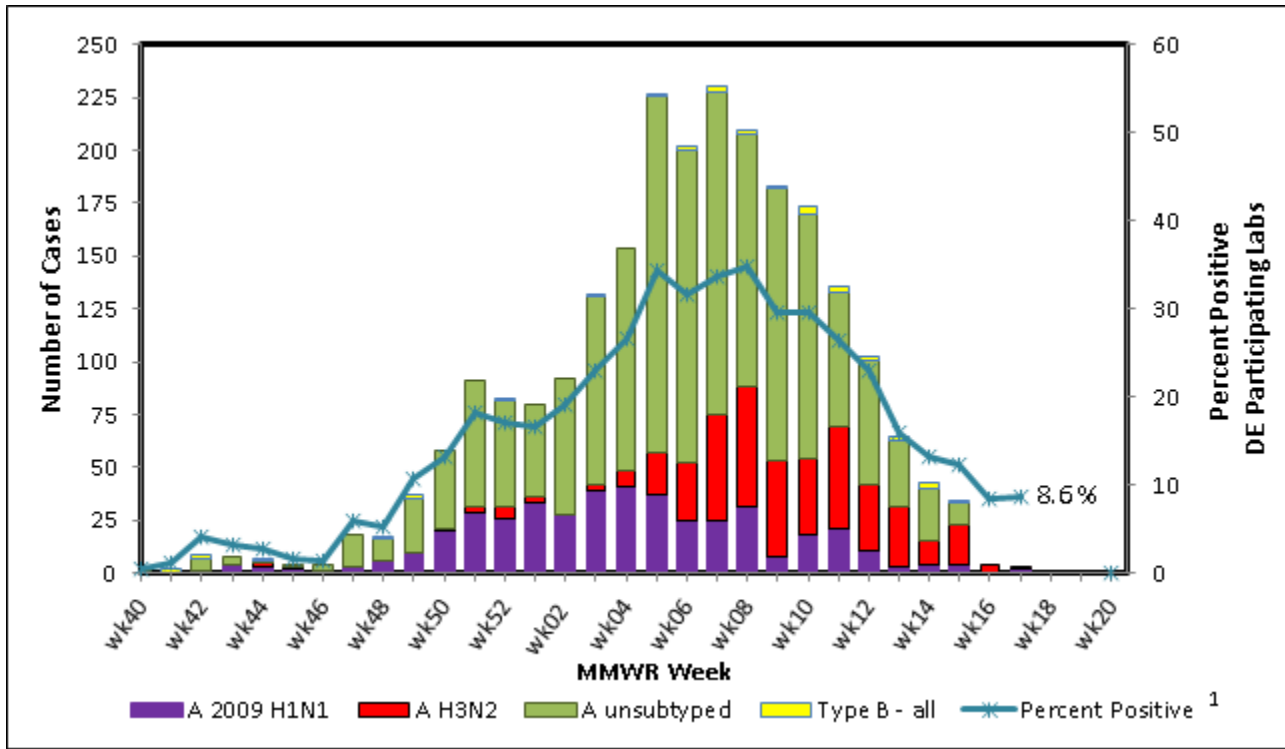


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

Hospitalized Flu Cases by Age Group		Wks 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	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	12	2	5	5	8	1	12	5	9	9	1	3	4	1	0	2	1	0	0	80	1,052	
	5-24 years	6	1	2	4	4	5	4	7	4	4	2	4	5	1	0	0	2	0	1	56		
	25-49 years	17	5	4	7	11	9	8	8	9	8	8	6	3	6	4	0	0	0	0	113		
	50-64 years	36	9	6	12	14	21	17	27	25	10	37	17	11	11	4	5	1	2	0	265		
	65+ years	49	24	10	17	30	21	45	48	42	40	54	54	36	31	12	15	5	4	1	538		
New Castle County	0-4 years	4	1	3	4	6	1	5	4	7	6	0	1	4	1	0	1	1	0	0	49	524	49.6%
	5-24 years	5	1	2	2	3	3	2	6	1	4	1	4	4	1	0	0	1	0	1	41		
	25-49 years	8	2	3	5	5	6	7	5	6	4	3	5	2	3	1	0	0	0	0	65		
	50-64 years	13	2	4	7	6	9	10	14	9	5	18	7	4	7	2	2	0	2	0	121		
	65+ years	17	11	7	8	19	6	22	28	19	20	24	27	11	14	7	6	2	0	0	248		
Kent County	0-4 years	5	1	0	0	0	0	4	0	2	0	0	1	0	0	0	0	0	0	0	13	246	23.4%
	5-24 years	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	5		
	25-49 years	8	2	0	1	3	2	0	1	1	2	0	1	0	2	2	0	0	0	0	25		
	50-64 years	16	3	0	1	4	9	5	8	9	2	8	4	4	2	0	2	0	0	0	77		
	65+ years	18	7	0	1	6	5	9	11	6	10	13	9	13	9	3	1	2	2	1	126		
Sussex County	0-4 years	3	0	2	1	2	0	3	1	0	3	1	1	0	0	0	1	0	0	0	18	282	26.9%
	5-24 years	1	0	0	1	1	1	1	1	2	0	1	0	1	0	0	0	0	0	0	10		
	25-49 years	1	1	1	1	3	1	1	2	2	2	5	0	1	1	1	0	0	0	0	23		
	50-64 years	7	4	2	4	4	3	2	5	7	3	11	6	3	2	2	1	1	0	0	67		
	65+ years	14	6	3	8	5	10	14	9	17	10	17	18	12	8	2	8	1	2	0	164		

Table 3. Influenza-related deaths, Delaware 2018-19

Influenza-Related Deaths	Wks 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	YTD
	1	2	2	0	2	4	1	1	2	2	1	1	1	3	1	0	0	0	0	24

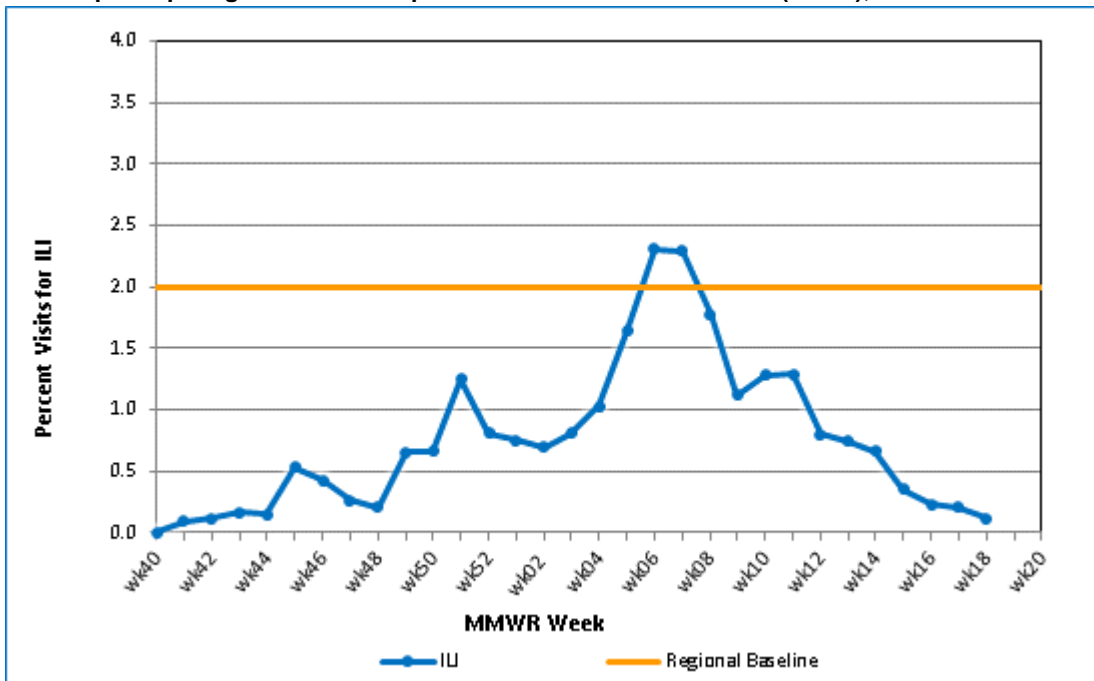
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19

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	9,051
2018 – 2019 (YTD)	6,385

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 Delaware 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.

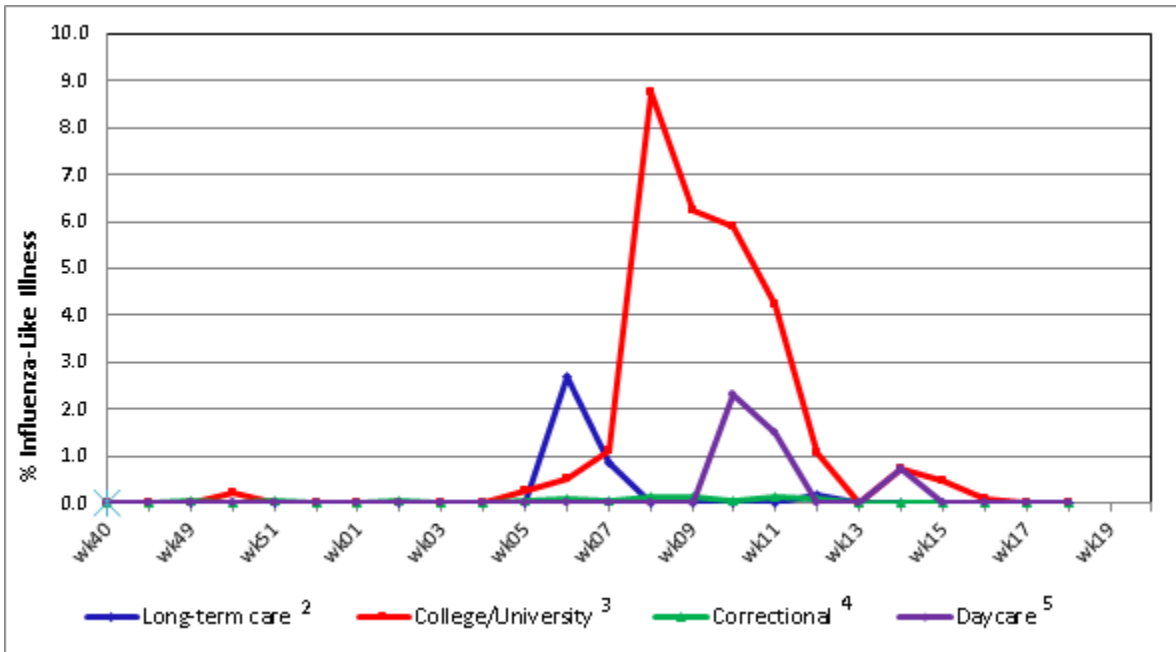
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19



¹ Ten of 12 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 2018-19



- ¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities.
- ² % ILI= percentage of residents with ILI symptoms. Seven 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, 2018-19

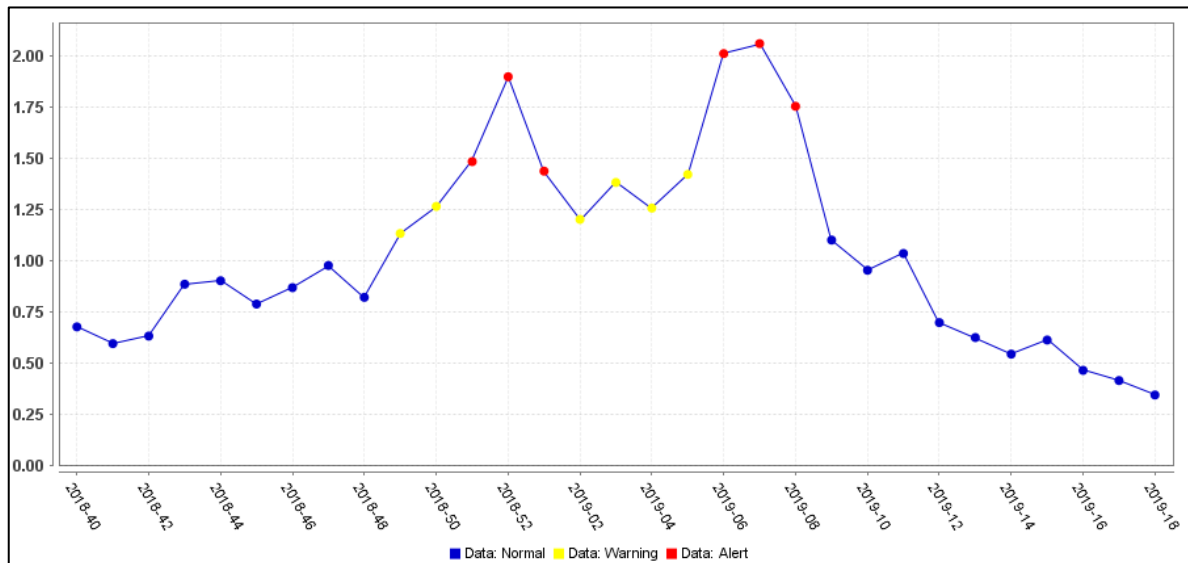


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19

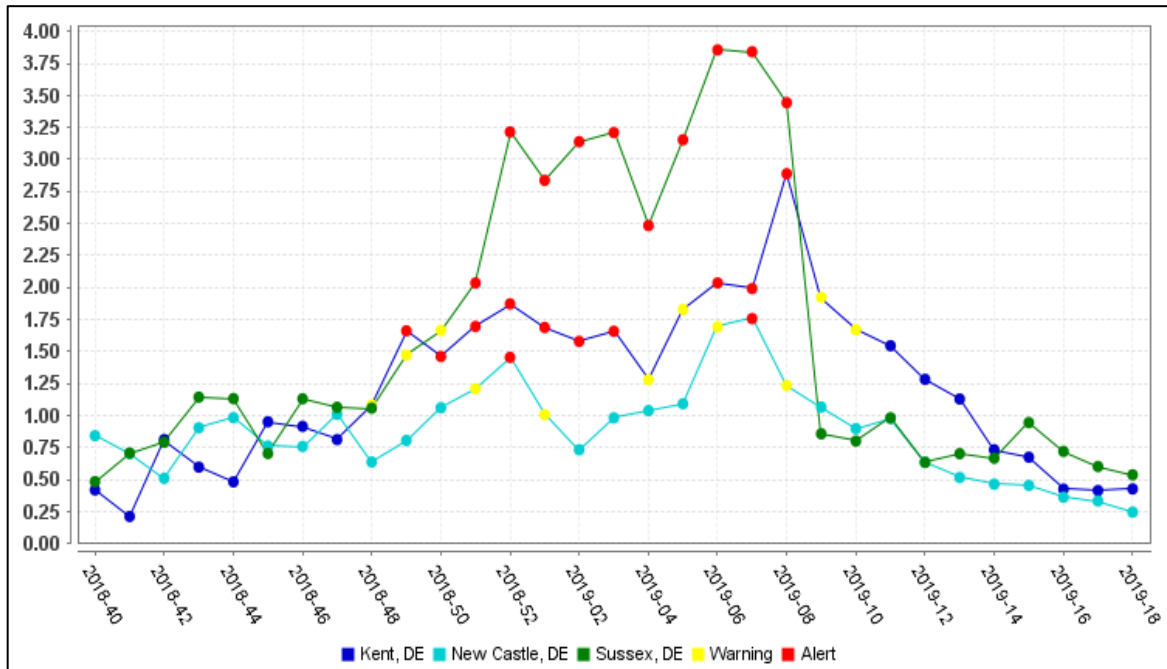


Figure 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19

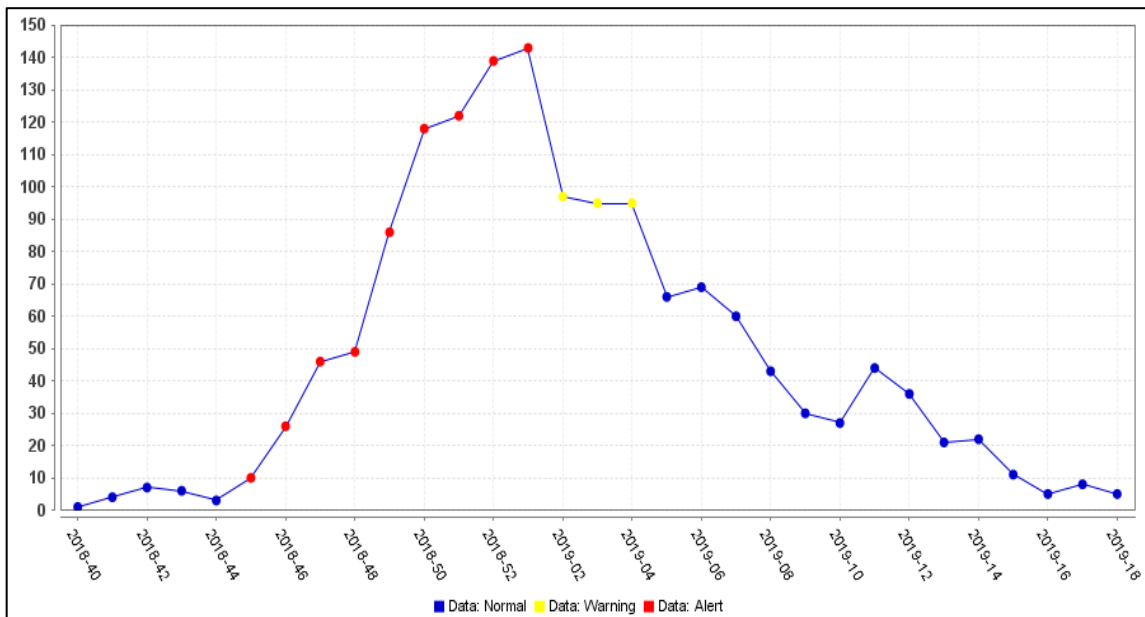
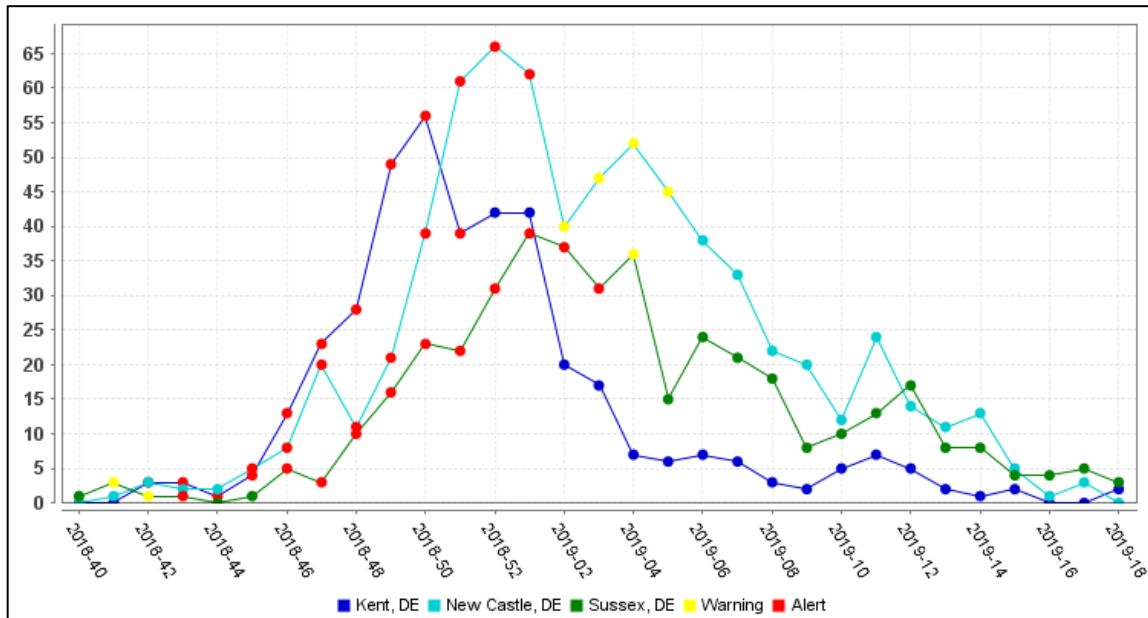


Figure 5b. County-specific numbers of ED visits due to RSV by MMWR Week, Delaware, 2018-19



Summary of Worldwide Influenza Activity

Worldwide, seasonal influenza A viruses accounted for the majority of detections.

In the temperate zone of the northern hemisphere influenza activity decreased overall. In the temperate zones of the southern hemisphere, influenza detections increased in southern Australia and South Africa. The influenza activity in South America remained at inter-seasonal levels.

In North America, influenza activity continued to decrease with influenza A(H3N2) the dominant virus, followed by influenza B.

In the United States and Canada, Influenza A(H3N2) predominated in recent weeks.

In the Caribbean, Central American countries, and the tropical countries of South America, influenza and RSV activity were low in general.

In Europe, influenza activity decreased across the continent. Both influenza A viruses co-circulated; influenza A(H3N2) was the most frequently identified subtype..

In North Africa, influenza detections were low across reporting countries.

In Western Asia, influenza activity appeared to decrease overall, with exception of Saudi Arabia where activity remained elevated. In East Asia, influenza activity was reported in some countries, with influenza B viruses most frequently detected, followed by influenza A(H3N2). A second wave of influenza activity was reported in the Republic of Korea. In Southern Asia, influenza activity was low overall.

Reference: World Health Organization (WHO), 2019. Influenza Update number 340 (4/29/2019). Retrieved 5/3/19 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.