



# Delaware Weekly Influenza Report

## MMWR Week 20 (May 12 - 18, 2019)

### Delaware Division of Public Health

**Note: This is the final Delaware Weekly Influenza Report for the 2018-2019 season.**

**The first report of the 2019-2020 season, MMWR Week 40 (September 29–October 5, 2019), will be October 11, 2019.**

#### 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 20 (May 12 - 18, 2019) Influenza activity remained low in United States and was similar to last week. 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. **Widespread influenza activity** was reported by Massachusetts. **Regional influenza activity** was reported by Puerto Rico and Arizona. **Local influenza activity** was reported by 8 states (Connecticut, Hawaii, Louisiana, **Maryland**, Michigan, Minnesota, New Hampshire and Washington). **Sporadic influenza activity** was reported by the District of Columbia, the U.S. Virgin Islands and 36 states (Alabama, Arkansas, California, Colorado, **Delaware**, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Maine, Missouri, Montana, Nebraska, Nevada, **New Jersey**, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, **Pennsylvania**, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin and Wyoming). **No influenza activity** was reported by four states (Alaska, Kansas, Mississippi and North Carolina). 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 20 there were three laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 6,387 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI decreased to 0.15% (2018-2019 baseline of 2.0%). Nationally, ILI remained at 1.5%, below the national baseline of 2.2%.

#### Level of Influenza Activity in Delaware, MMWR Week 20:

<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.
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.	
<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> 2018-2019 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 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	Wk 19	Wk 20	YTD	YTD Total	YTD County %		
<b>STATEWIDE</b>	A / 2009 H1N1	142	43	33	47	56	50	38	24	42	25	24	30	12	8	6	3	1	2	0	0	0	586	6,387		
	A / 2012 H3N2	15	4	0	5	7	26	37	60	92	74	45	54	36	33	14	22	7	2	1	1	0	535			
	A / no subtype	520	155	130	196	253	345	538	504	542	446	468	377	230	150	98	77	23	11	0	4	1	5,068			
	Co-infection	2	0	0	0	1	0	0	0	1	0	1	0	0	0	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	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	0	0	0			9
	B / no lineage	5	4	4	8	6	4	16	14	11	11	27	15	13	8	8	8	12	2	1	0	2	179			
<b>New Castle County</b>	A / 2009 H1N1	99	29	26	32	39	34	24	16	20	10	9	11	10	6	4	0	0	1	0	0	0	370	2,420	37.9%	
	A / 2012 H3N2	11	3	0	4	6	16	27	36	71	52	26	26	21	21	8	11	5	0	1	1	0	346			
	A / no subtype	155	34	52	66	104	130	208	176	176	143	137	133	69	38	28	20	6	1	0	1	1	1,678			
	Co-infection	0	0	0	0	1	0	0	0	1	0	0	0	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	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	0	0	0			6
	B / no lineage	2	1	0	0	0	1	0	1	2	5	1	1	1	1	0	0	0	0	0	0	0	0			17
<b>Kent County</b>	A / 2009 H1N1	29	6	2	6	9	10	14	3	12	11	10	10	2	2	2	1	1	1	0	0	0	131	1,697	26.6%	
	A / 2012 H3N2	4	1	0	0	0	4	6	17	14	13	17	13	9	6	4	4	1	1	0	0	0	114			
	A / no subtype	209	47	20	35	51	63	133	103	141	133	141	115	76	50	30	24	7	4	0	1	0	1,383			
	Co-infection	0	0	0	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	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	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	0	1	66			
<b>Sussex County</b>	A / 2009 H1N1	14	8	5	9	8	6	0	5	10	4	5	9	0	0	0	2	0	0	0	0	0	85	2,270	35.5%	
	A / 2012 H3N2	0	0	0	1	1	6	4	7	7	9	2	15	6	6	2	7	1	1	0	0	0	75			
	A / no subtype	156	74	58	95	98	152	197	225	225	170	190	129	85	62	40	33	10	6	0	2	0	2,007			
	Co-infection	2	0	0	0	0	0	0	0	0	0	1	0	0	0	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	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	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	0	1	96			

**Table 1b. Influenza positive<sup>1</sup> cases reported<sup>2</sup> 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	Wk 19	Wk 20	YTD	YTD Total	YTD County %	
<b>STATEWIDE</b>	0-4 years	164	58	55	69	77	85	121	129	137	114	101	116	60	33	19	23	11	4	0	0	0	1,376	6,387	
	5-24 years	189	28	36	65	91	160	246	223	255	200	195	129	73	52	41	25	15	1	2	0	1	2,027		
	25-49 years	165	48	32	58	71	81	114	83	120	93	92	72	49	37	20	17	5	2	0	3	1	1,163		
	50-64 years	92	33	24	37	46	56	69	81	96	53	81	65	39	28	22	17	6	3	0	1	1	850		
	65+ years	77	39	20	27	38	43	79	87	80	96	98	96	71	49	27	29	6	7	1	1	0	971		
	<b>New Castle County</b>	0-4 years	70	17	25	25	45	40	58	43	44	45	33	41	27	12	6	7	2	0	0	0	0		
5-24 years	77	12	14	22	40	64	85	73	108	75	48	38	32	20	17	6	4	0	2	0	0	737			
25-49 years	59	16	17	25	25	40	51	36	50	30	28	26	14	7	6	4	1	0	0	2	0	437			
50-64 years	34	8	14	17	20	24	31	34	34	21	32	23	12	11	6	6	2	2	0	0	1	332			
65+ years	27	14	8	13	20	13	34	44	34	39	33	44	17	16	8	8	2	0	0	0	0	374			
<b>Kent County</b>	0-4 years	46	18	7	13	11	15	34	25	54	39	35	38	18	9	5	5	6	3	0	0	0	381	1,697	26.6%
5-24 years	71	7	5	16	19	28	63	52	53	67	60	52	21	13	9	14	5	0	0	0	0	555			
25-49 years	65	10	7	13	18	14	35	17	27	25	32	18	12	16	7	4	2	0	0	0	1	323			
50-64 years	35	6	2	4	9	13	17	17	23	10	18	18	14	6	8	5	2	0	0	0	0	207			
65+ years	28	13	3	2	7	9	17	22	12	19	27	13	24	16	9	2	2	4	1	1	0	231			
<b>Sussex County</b>	0-4 years	48	23	23	31	21	30	29	61	39	30	33	37	15	12	8	11	3	1	0	0	0	455		
5-24 years	41	9	17	27	32	68	98	98	94	58	87	39	20	19	15	5	6	1	0	0	1	735			
25-49 years	41	22	8	20	28	27	28	30	43	38	32	28	23	14	7	9	2	2	0	1	0	403			
50-64 years	23	19	8	16	17	19	21	30	39	22	31	24	13	11	8	6	2	1	0	1	0	311			
65+ years	22	12	9	12	11	21	28	21	34	38	38	39	30	17	10	19	2	3	0	0	0	366			

<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 are categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases<sup>1</sup> of influenza by type and subtype/lineage, Delaware 2018-2019 influenza season\*

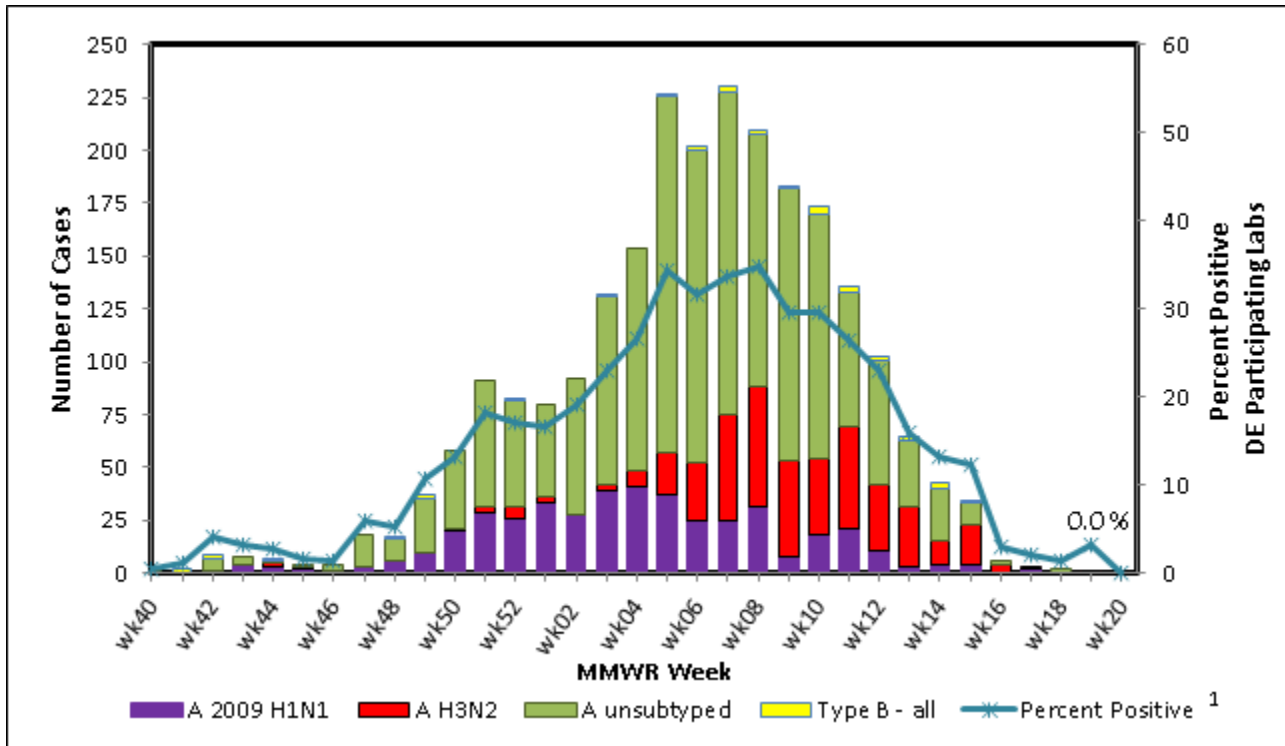


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

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	Wk 19	Wk 20	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	0	0	80	1,051	
	5-24 years	6	1	2	4	4	5	4	7	4	4	2	4	5	1	0	0	2	0	1	0	0	56		
	25-49 years	17	5	4	6	11	9	8	8	9	8	8	6	3	6	4	0	0	0	0	0	0	112		
	50-64 years	36	9	6	12	14	21	17	27	25	10	37	17	11	11	4	5	1	2	0	0	0	265		
	65+ years	49	24	10	17	30	21	45	48	42	40	54	54	36	31	12	15	5	4	1	0	0	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	0	0	49	523	49.8%
	5-24 years	5	1	2	2	3	3	2	6	1	4	1	4	4	1	0	0	1	0	1	0	0	41		
	25-49 years	8	2	3	4	5	6	7	5	6	4	3	5	2	3	1	0	0	0	0	0	0	64		
	50-64 years	13	2	4	7	6	9	10	14	9	5	18	7	4	7	2	2	0	2	0	0	0	121		
	65+ years	17	11	7	8	19	6	22	28	19	20	24	27	11	14	7	6	2	0	0	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	0	0	13	247	23.54%
	5-24 years	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	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	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	0	0	77		
	65+ years	18	7	0	1	6	5	9	11	6	11	13	9	13	9	3	1	2	2	1	0	0	127		
Sussex County	0-4 years	3	0	2	1	2	0	3	1	0	3	1	1	0	0	0	1	0	0	0	0	0	18	281	26.7%
	5-24 years	1	0	0	1	1	1	1	1	2	0	1	0	1	0	0	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	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	0	0	67		
	65+ years	14	6	3	8	5	10	14	9	17	9	17	18	12	8	2	8	1	2	0	0	0	163		

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	Wk 19	Wk 20	YTD	
	1	2	2	0	2	4	1	1	2	2	1	1	1	3	1	0	0	0	0	0	0	0	24

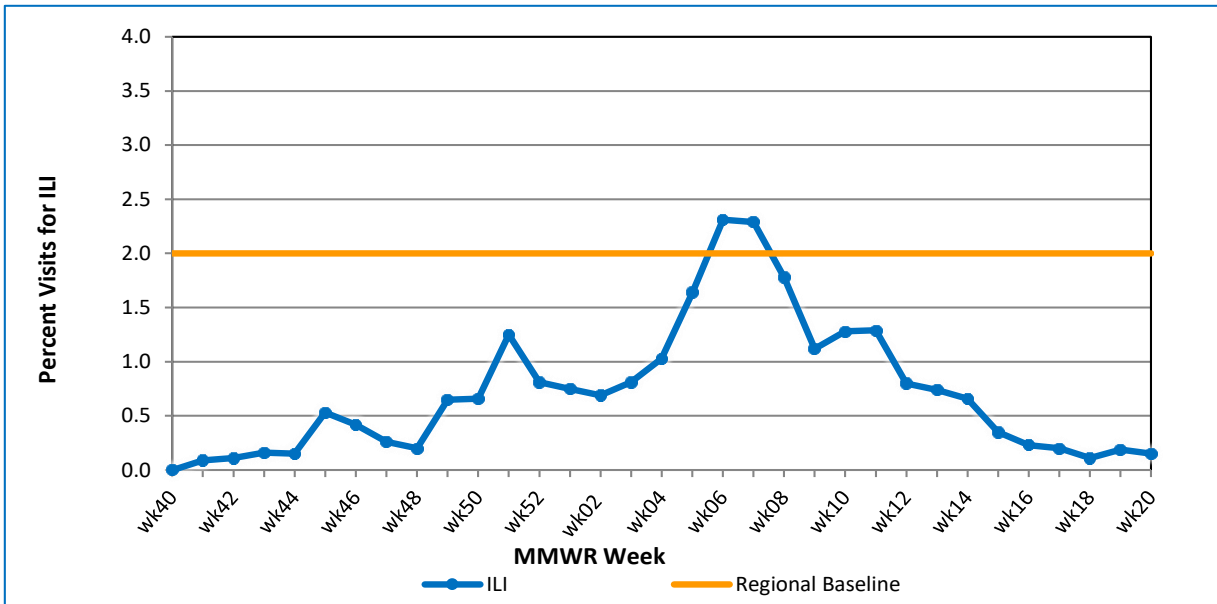
**Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19**

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
<b>2018 – 2019 (YTD)</b>	<b>6,387</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 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.

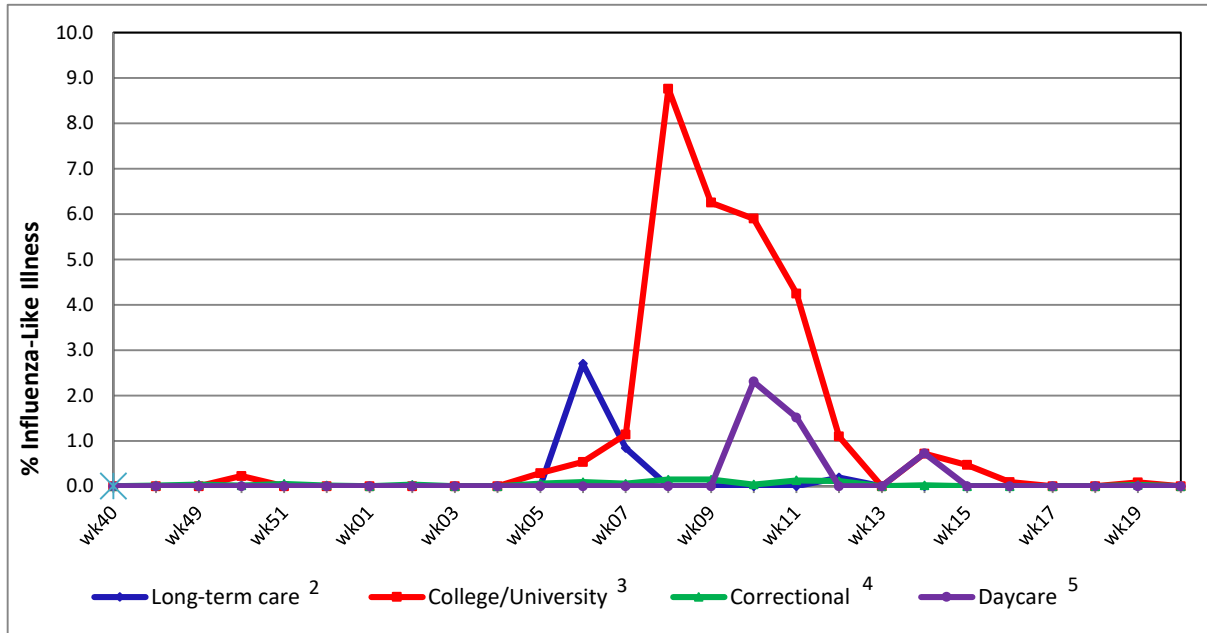
**Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers<sup>1</sup> participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19**



<sup>1</sup> Ten of 12 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 2018-19**



- <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; One university 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, 2018-19**

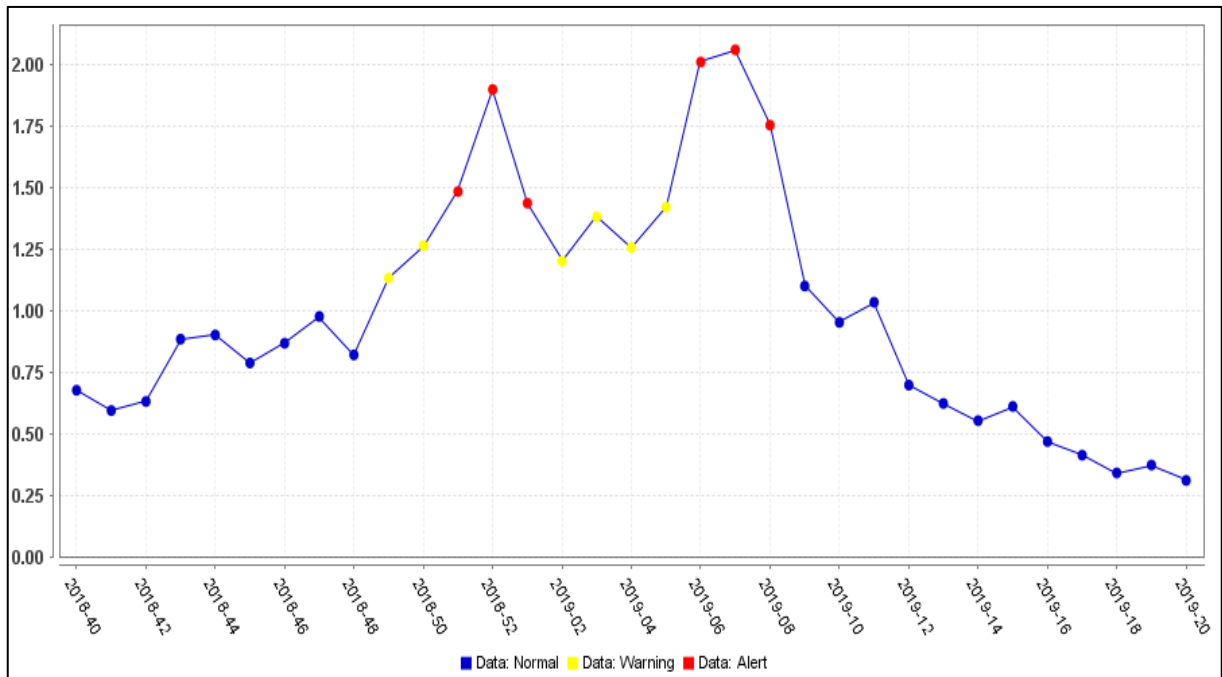


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19

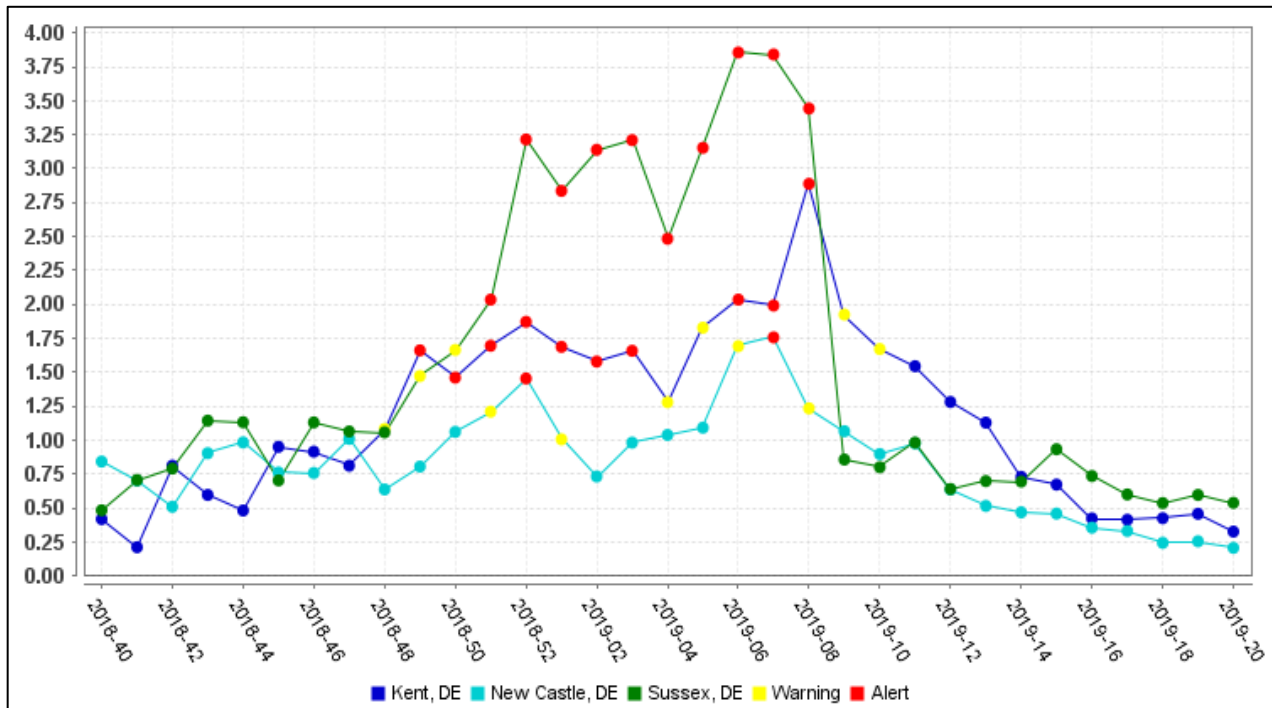
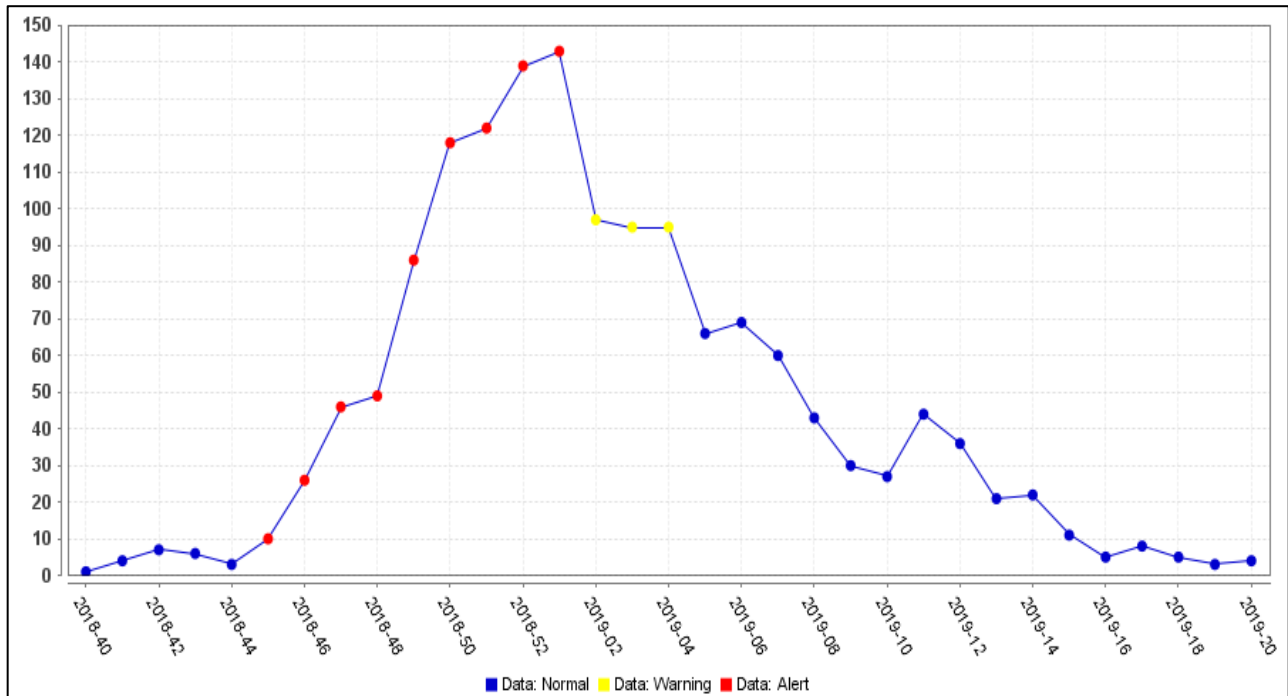
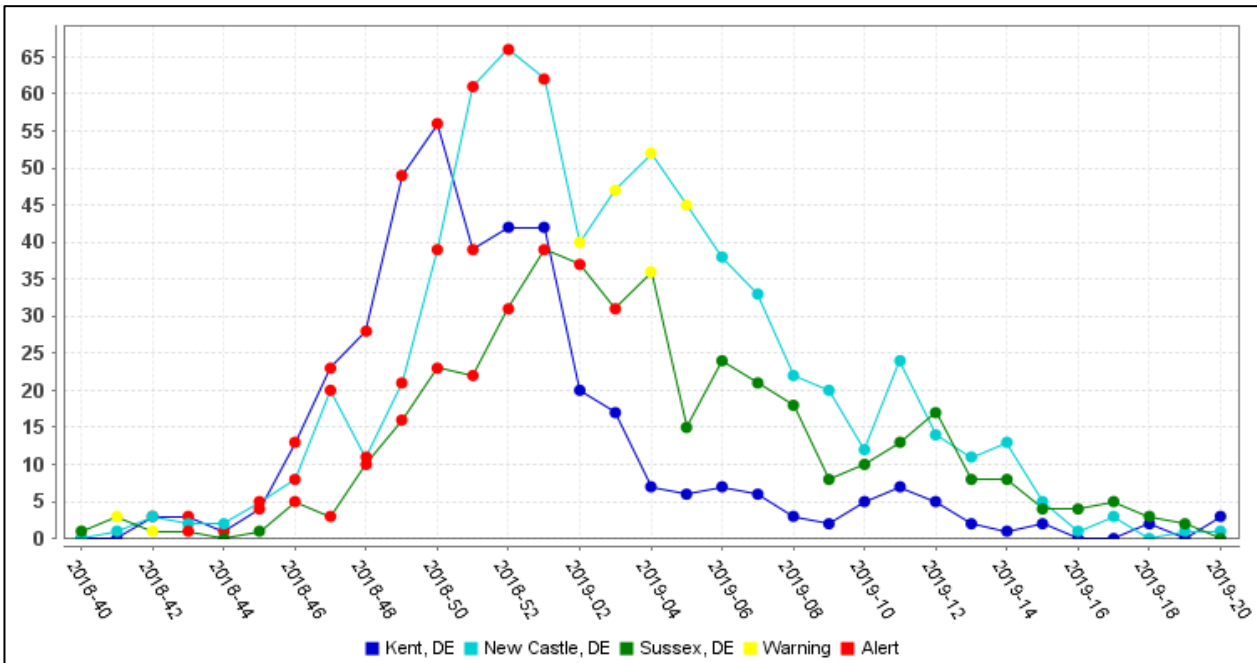


Figure 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19



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

In North America, influenza activity was low overall. During the past weeks, influenza A(H3N2) predominated in the United States and Canada. In Mexico, influenza activity decreased with co-circulation of influenza A(H3N2) and influenza A(H1N1)pdm09.

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 was low overall.

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

In Western Asia, influenza activity decreased overall, with exception of Saudi Arabia where activity remained elevated. In East Asia, although decreasing influenza activity was reported in some countries. In Southern Asia, influenza activity was low 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.

**Reference:** World Health Organization (WHO), 2019. Influenza Update number 341 (5/13/2019). Retrieved 5/17/19 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.

**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.