



# Delaware Weekly Influenza Report

## MMWR Week 8 (February 17 - 23, 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 8 (February 17 - 23, 2019) Influenza activity remains elevated in the United States. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate. Geographic spread during week 8 is **Widespread influenza activity** was reported by Puerto Rico and 49 states (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming). **Local influenza activity** was reported by the District of Columbia and Hawaii. **Sporadic influenza activity** was reported by the U.S. Virgin Islands. 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 8, there were 673 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 3,941 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI decreased to 1.8%, below the 2018-2019 baseline of 2.0%. Nationally, ILI remained at 5.0%, above the national baseline of 2.2%.

#### Level of Influenza Activity in Delaware, MMWR Week 8:

<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> 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></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> 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	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	Wk 8	YTD	YTD Total	YTD County %	
STATEWIDE	A / 2009 H1N1	1	0	1	4	4	3	3	6	6	10	26	42	36	43	33	47	55	49	37	23	39	468	3,941	
	A / 2012 H3N2	0	0	0	0	2	1	0	0	0	0	2	5	5	4	0	4	7	26	37	59	87	239		
	A / no subtype	4	3	2	3	14	15	7	17	40	35	68	131	182	148	130	196	253	339	536	495	536	3,155		
	Co-infection	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4		
	B / Yamagata	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	4		
	B / Victoria	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	1	0	0	0	0	0	0	0	0	1	2	1	1	4	4	8	6	4	16	14	10	71		
New Castle County	A / 2009 H1N1	1	0	0	3	2	2	1	4	4	6	21	31	24	29	26	32	39	34	24	15	20	318	1,589	40.3%
	A / 2012 H3N2	0	0	0	0	1	0	0	0	0	0	2	3	5	3	0	3	6	16	27	36	70	172		
	A / no subtype	1	1	0	3	3	4	2	1	11	9	27	41	55	34	52	67	104	123	207	173	171	1,089		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
	B / Victoria	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	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	1	2	7		
Kent County	A / 2009 H1N1	0	0	0	1	2	1	2	2	2	3	4	6	6	6	2	6	9	9	13	3	10	87	967	24.5%
	A / 2012 H3N2	0	0	0	0	1	1	0	0	0	0	0	2	0	1	0	0	0	4	6	16	11	42		
	A / no subtype	3	2	2	0	7	10	5	12	24	18	27	48	50	46	20	35	51	63	132	101	139	795		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / Yamagata	0	0	2	0	0	0	0	0	1	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		
	B / no lineage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	4	2	13	10	2	40		
Sussex County	A / 2009 H1N1	0	0	1	0	0	0	0	0	0	1	1	5	6	8	5	9	7	6	0	5	9	63	1,385	35.1%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6	4	7	6	25			
	A / no subtype	0	0	0	0	4	1	0	4	5	8	14	42	77	68	58	94	98	153	197	221	226	1,271		
	Co-infection	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / Victoria	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	1	0	0	0	0	0	0	0	0	1	1	1	0	3	2	1	2	1	3	3	6	24		

**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	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	Wk 8	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	0	1	1	0	3	9	3	7	7	7	25	40	62	55	55	69	77	86	121	127	133	888	3,941	
	5-24 years	1	1	2	1	4	4	4	8	8	15	31	64	48	27	36	65	91	158	246	221	247	1,282		
	25-49 years	3	1	0	2	5	3	2	5	16	8	20	45	54	48	32	57	71	77	112	79	118	758		
	50-64 years	0	1	2	2	3	1	0	3	7	9	16	17	31	32	24	37	46	55	68	79	95	528		
	65+ years	2	0	0	3	5	2	1	0	9	7	6	13	29	37	20	27	37	42	79	86	80	485		
New Castle County	0-4 years	0	0	0	0	1	3	1	2	3	2	10	21	28	17	25	25	45	42	58	41	44	368	1,589	40.3%
	5-24 years	0	0	0	0	1	2	1	1	2	7	18	27	20	12	14	22	40	61	84	72	104	488		
	25-49 years	2	0	0	2	1	0	1	1	4	3	11	13	21	16	17	25	25	36	51	36	49	314		
	50-64 years	0	1	0	1	2	1	0	1	2	1	9	9	7	8	14	17	20	23	31	33	33	213		
	65+ years	0	0	0	3	1	0	0	0	4	2	3	5	9	14	8	13	20	12	34	44	34	206		
Kent County	0-4 years	0	0	0	0	0	5	2	4	4	4	10	9	8	18	7	13	11	14	34	25	50	218	967	24.5%
	5-24 years	0	1	2	0	3	2	3	4	5	7	10	24	10	7	5	16	19	28	64	52	50	312		
	25-49 years	1	1	0	0	3	3	1	4	11	3	7	17	13	10	7	13	18	14	33	15	27	201		
	50-64 years	0	0	2	1	0	0	0	2	4	5	2	6	13	5	2	4	9	13	16	17	23	124		
	65+ years	2	0	0	0	4	2	1	0	3	2	2	0	12	13	3	2	7	9	17	21	12	112		
Sussex County	0-4 years	0	1	1	0	2	1	0	1	0	1	5	10	26	20	23	31	21	30	29	61	39	302	1,385	35.1%
	5-24 years	1	0	0	1	0	0	0	3	1	1	3	13	18	8	17	27	32	69	98	97	93	482		
	25-49 years	0	0	0	0	1	0	0	0	1	2	2	15	20	22	8	19	28	27	28	28	42	243		
	50-64 years	0	0	0	0	1	0	0	0	1	3	5	2	11	19	8	16	17	19	21	29	39	191		
	65+ years	0	0	0	0	0	0	0	0	2	3	1	8	8	10	9	12	10	21	28	21	34	167		

<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\*

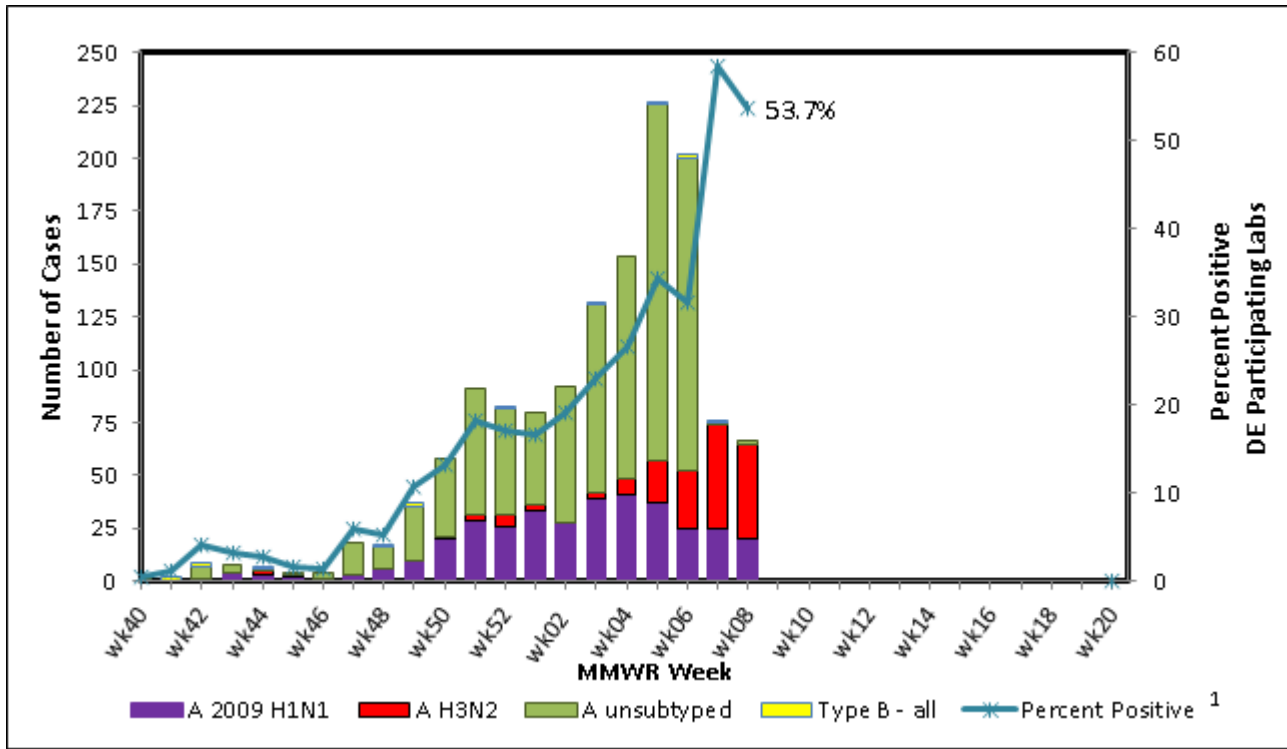


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

Hospitalized Flu Cases by Age Group	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	Wk 8	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	0	0	1	0	0	0	0	0	0	2	5	4	2	5	5	8	1	12	5	9	59	624		
	5-24 years	0	0	0	0	0	0	0	0	0	1	5	0	1	2	4	4	5	4	7	4	37			
	25-49 years	0	1	0	1	2	1	0	1	0	1	3	3	4	5	4	7	11	9	8	8	9			78
	50-64 years	0	0	1	2	1	0	0	0	1	2	9	6	13	9	6	12	14	21	17	27	23			164
	65+ years	0	0	0	2	5	2	1	0	4	5	5	7	18	24	10	17	30	21	45	48	42			286
New Castle County	0-4 years	0	0	0	0	0	0	0	0	0	1	1	2	1	3	4	6	1	5	4	7	35	317	50.8%	
	5-24 years	0	0	0	0	0	0	0	0	0	1	4	0	1	2	2	3	3	3	2	6	1			25
	25-49 years	0	0	0	1	1	0	0	0	0	1	2	1	2	2	3	5	5	6	7	5	6			47
	50-64 years	0	0	0	1	0	0	0	0	1	0	6	1	4	2	4	7	6	9	10	14	8			73
	65+ years	0	0	0	2	1	0	0	0	2	1	2	4	5	11	7	8	19	6	22	28	19			137
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	0	0	4	0	2	12	151	24.2%	
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	4			
	25-49 years	0	1	0	0	1	1	0	1	0	0	1	2	1	2	0	1	3	2	0	1	1			18
	50-64 years	0	0	1	1	0	0	0	0	0	2	1	4	6	3	0	1	4	9	5	8	9			54
	65+ years	0	0	0	0	4	2	1	0	1	2	2	0	6	7	0	1	6	5	9	11	6			63
Sussex County	0-4 years	0	0	1	0	0	0	0	0	0	0	1	1	0	2	1	2	0	3	1	0	12	156	25.0%	
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	2			8
	25-49 years	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1	1	2	2			13
	50-64 years	0	0	0	0	1	0	0	0	0	0	2	1	3	4	2	4	4	3	2	5	6			37
	65+ years	0	0	0	0	0	0	0	0	1	2	1	3	7	6	3	8	5	10	14	9	17			86

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

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	Wk 8	YTD
	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	2	4	1	1	2	15

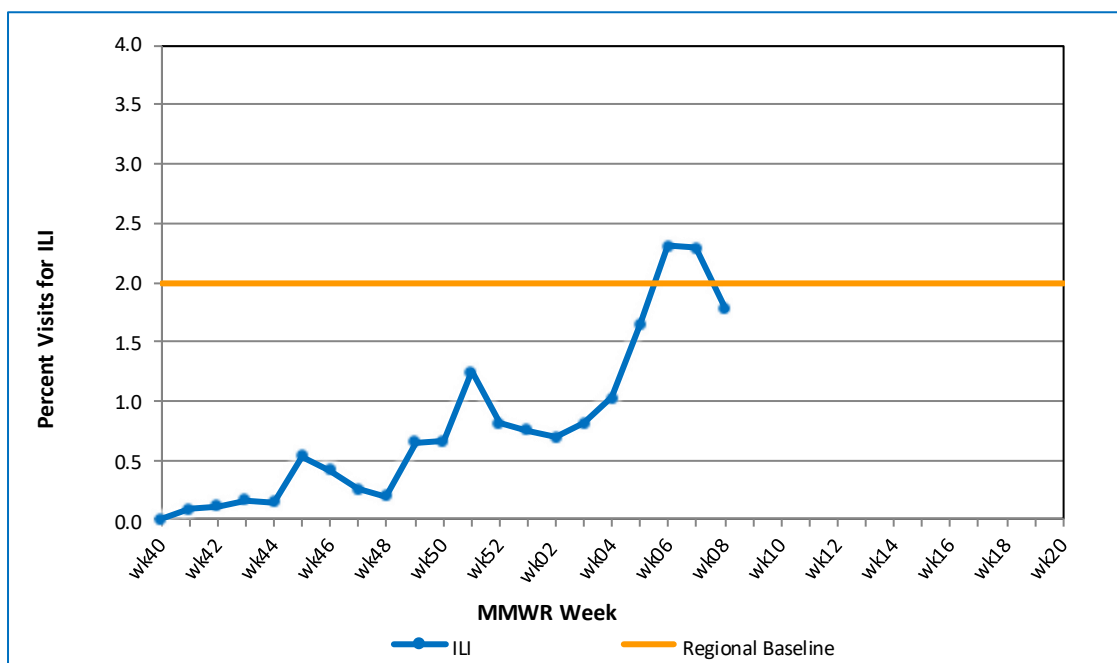
**Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19**

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>3,941</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.

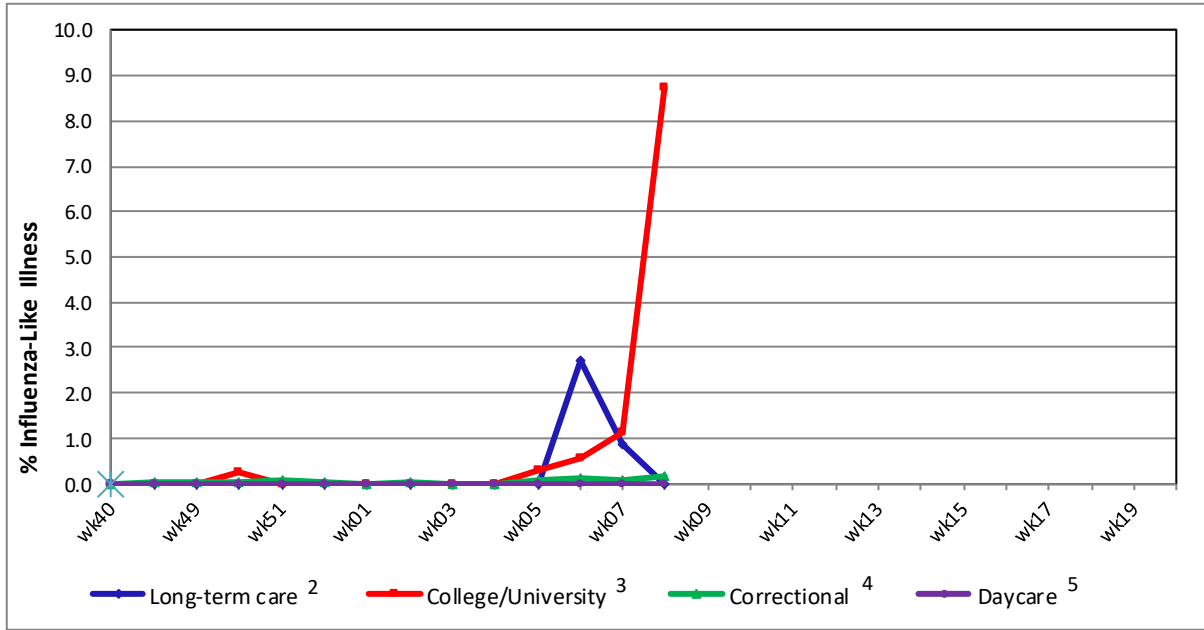
**Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers<sup>1</sup> participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19**



<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. Seven 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, 2018-19**

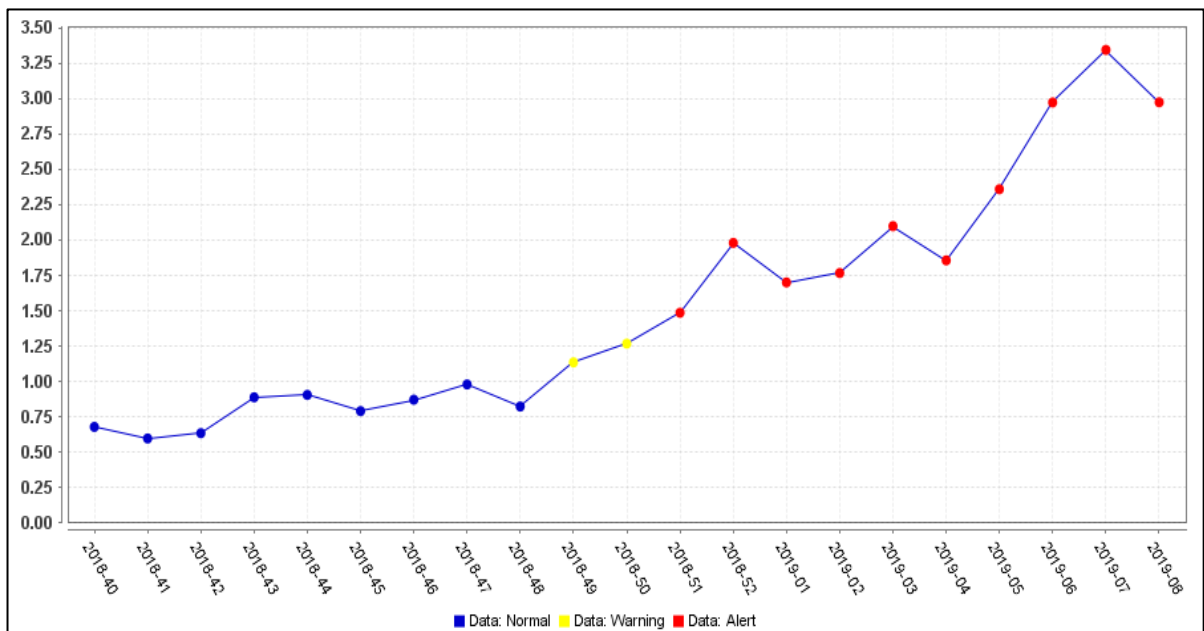


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19

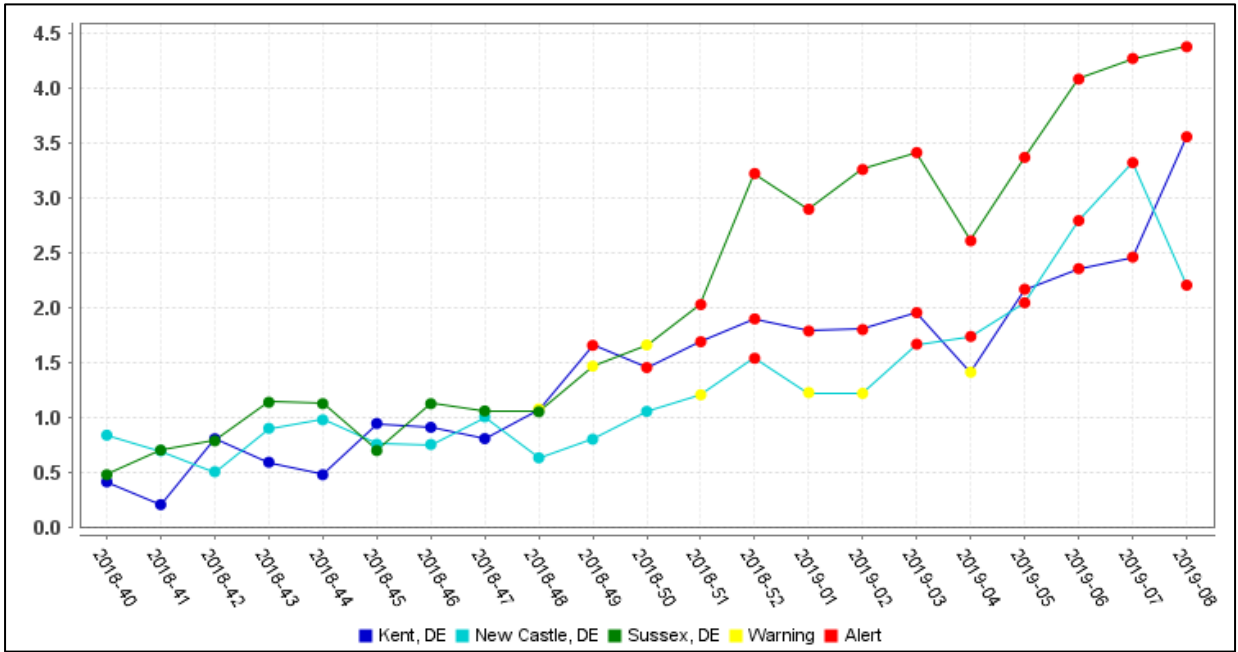
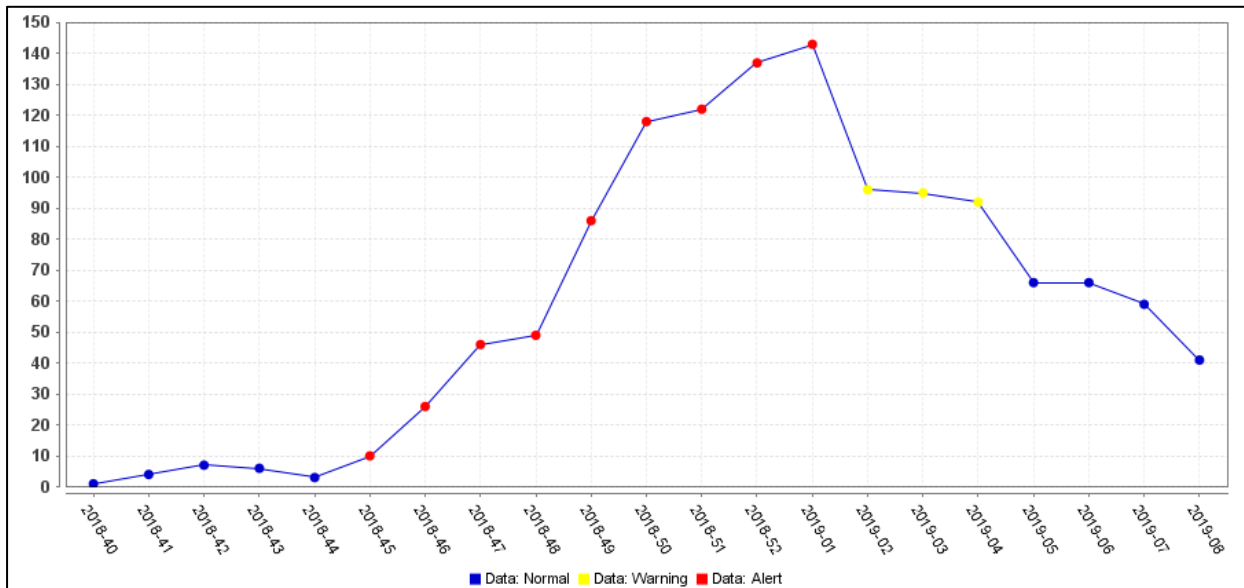
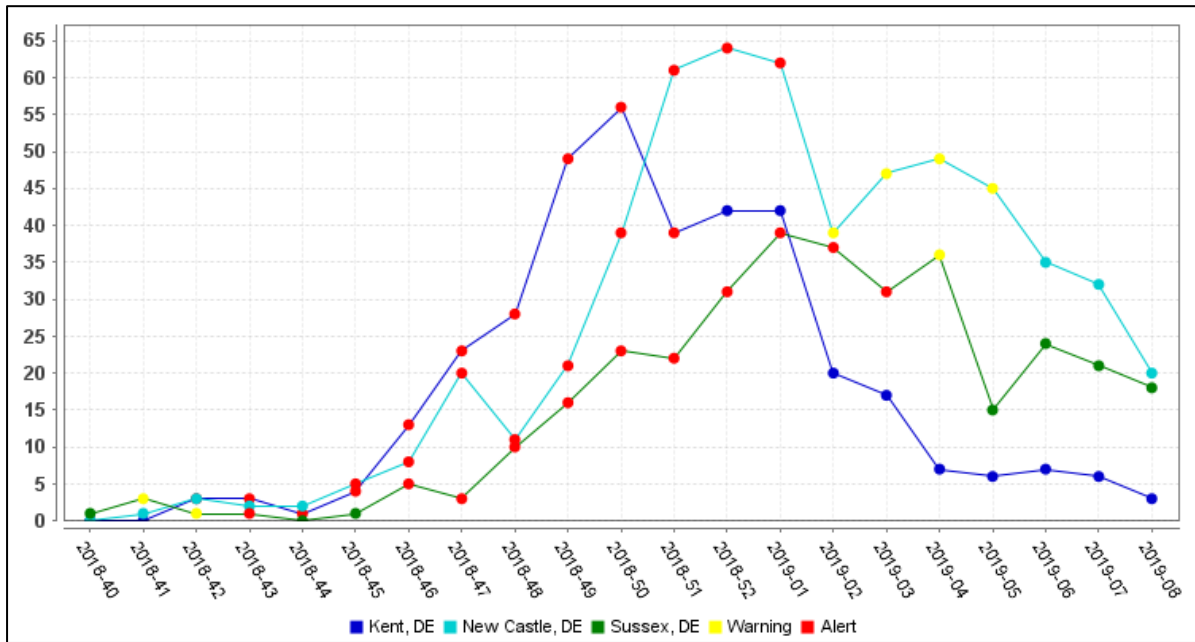


Figure 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19



**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 continued to increase. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels, with the exception of some parts of Australia where influenza activity remained above inter-seasonal levels.

In North America, influenza activity continued to increase in the United States and declined in Canada, influenza A(H1N1)pdm09 continue to be the most common influenza virus circulating. In Mexico, high influenza-associated SARI/ILI activity was reported with predominance of influenza A(H1N1)pdm09.v

In the Caribbean, Influenza virus activity slightly increased in some countries and lower RSV activity was reported throughout most of the sub-region. In Jamaica influenza detection increased with influenza A circulating. ILI consultations increased in some French Territories.

In Central America, epidemiological indicators remained at moderate levels and influenza activity was low throughout the sub-region with influenza A(H1N1)pdm09 and B co-circulating.

In Europe, influenza activity increased and in most of the countries was above the epidemic threshold.

In North Africa, influenza A(H1N1)pdm09 detections sharply increased.

In Western Asia, influenza activity remained elevated with increased activity in Cyprus, Israel, Jordan and Lebanon and appeared to have peaked in most countries of the Arabian Peninsula. In East Asia, influenza activity appeared to have peaked already, with influenza A(H1N1)pdm09 virus predominating. In Southern Asia, influenza detections remained elevated overall. Influenza activity appeared to decrease in Iran (Islamic Republic of) with influenza A(H3N2) the predominant circulating virus.

**Reference:** World Health Organization (WHO), 2019. Influenza Update number 335 (2/18/2019). Retrieved 2/22/19 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.

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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.