



Delaware Weekly Influenza Report

MMWR Week 9 (February 24 – March 2, 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 9 (February 24 – March 2, 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 9 is: **Widespread influenza activity** was reported by Puerto Rico and 48 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, Virginia, Washington, West Virginia, Wisconsin and Wyoming). **Local influenza activity** was reported by the District of Columbia and two states (Hawaii and Vermont). **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 9 there were 542 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 4,511 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI decreased from 1.8% to 1.1%, below the 2018-2019 baseline of 2.0%. Nationally, ILI decreased slightly to 4.7%, above the national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 9:

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: 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</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 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 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	YTD	YTD Total	YTD County %	
STATEWIDE	A / 2009 H1N1	38	26	42	36	43	33	47	55	49	39	24	39	20	491	4,511	
	A / 2012 H3N2	3	2	5	5	4	0	4	7	26	37	59	89	71	312		
	A / no subtype	140	68	132	182	155	130	196	253	342	538	500	541	442	3,619		
	Co-infection	2	0	0	0	0	0	0	1	0	0	0	1	0	4		
	B / Yamagata	3	0	0	0	0	0	0	0	0	0	1	0	0	4		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	2	2	0	1	4	4	8	6	4	16	14	11	9	81		
New Castle County	A / 2009 H1N1	23	21	31	24	29	26	32	39	34	24	16	20	9	328	1,808	40.0%
	A / 2012 H3N2	1	2	3	5	3	0	3	6	16	27	36	71	51	224		
	A / no subtype	35	27	41	55	34	52	67	104	126	208	175	176	141	1,241		
	Co-infection	0	0	0	0	0	0	0	1	0	0	0	1	0	2		
	B / Yamagata	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	0	1	0	1	1	0	0	0	1	0	1	2	5	12		
Kent County	A / 2009 H1N1	13	4	6	6	6	2	6	9	9	15	3	10	8	97	1,126	25.0%
	A / 2012 H3N2	2	0	2	0	1	0	0	0	4	6	16	11	11	53		
	A / no subtype	83	27	48	50	47	20	35	51	63	133	103	140	131	931		
	Co-infection	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	3		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	0	0	0	0	0	2	7	4	2	13	10	2	2	42		
Sussex County	A / 2009 H1N1	2	1	5	6	8	5	9	7	6	0	5	9	3	66	1,577	35.0%
	A / 2012 H3N2	0	0	0	0	0	0	1	1	6	4	7	7	9	35		
	A / no subtype	22	14	43	77	74	58	94	98	153	197	222	225	170	1,447		
	Co-infection	2	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		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	B / no lineage	2	1	0	0	3	2	1	2	1	3	3	7	2	27		

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

Confirmed Flu Cases by Age Group	Wks 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	38	25	40	62	58	55	69	77	86	121	128	134	114	1,007	4,511	
	5-24 years	48	31	64	48	28	36	65	91	158	247	222	251	193	1,482		
	25-49 years	45	20	45	54	48	32	57	71	79	114	80	120	90	855		
	50-64 years	28	16	17	31	33	24	37	46	55	69	81	96	52	585		
	65+ years	29	6	13	29	39	20	27	37	43	79	87	80	93	582		
	New Castle County	0-4 years	12	10	21	28	17	25	25	45	42	58	42	44	45		
5-24 years	14	18	27	20	12	14	22	40	61	85	73	107	73	566			
25-49 years	14	11	13	21	16	17	25	25	38	51	36	51	29	347			
50-64 years	9	9	9	7	8	14	17	20	23	31	34	34	21	236			
65+ years	10	3	5	9	14	8	13	20	13	34	44	34	38	245			
Kent County	0-4 years	19	10	9	8	18	7	13	11	14	34	25	51	39	258	1,126	25.0%
5-24 years	27	10	24	10	7	5	16	19	28	64	52	50	62	374			
25-49 years	27	7	17	13	10	7	13	18	14	35	16	27	24	228			
50-64 years	14	2	6	13	6	2	4	9	13	17	17	23	10	136			
65+ years	14	2	0	12	13	3	2	7	9	17	22	12	17	130			
Sussex County	0-4 years	7	5	10	26	23	23	31	21	30	29	61	39	30	335		
5-24 years	7	3	13	18	9	17	27	32	69	98	97	94	58	542			
25-49 years	4	2	15	20	22	8	19	28	27	28	28	42	37	280			
50-64 years	5	5	2	11	19	8	16	17	19	21	30	39	21	213			
65+ years	5	1	8	8	12	9	12	10	21	28	21	34	38	207			

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*

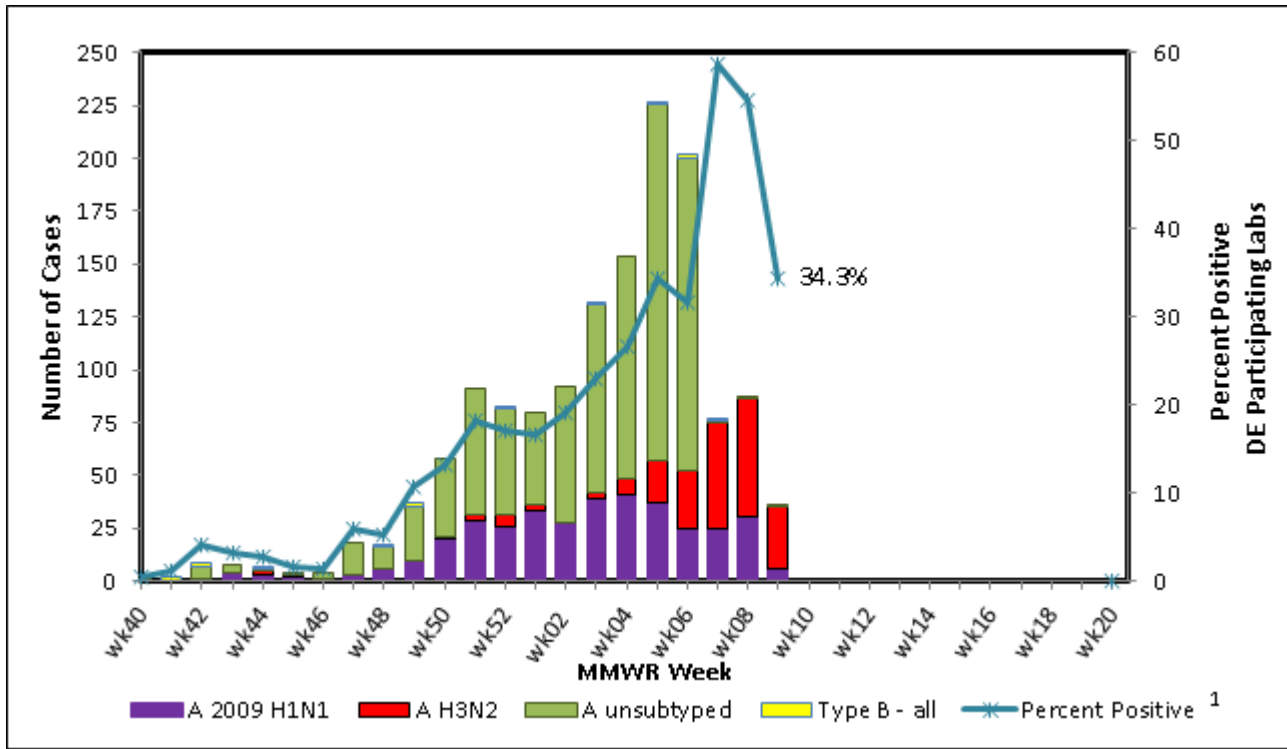


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

Hospitalized Flu Cases by Age Group		Wks 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	1	2	5	4	2	5	5	8	1	12	5	9	9	68	697	
	5-24 years	0	1	5	0	1	2	4	4	5	4	7	4	4	41		
	25-49 years	7	3	3	4	5	4	7	11	9	8	8	9	7	85		
	50-64 years	7	9	6	14	9	6	12	14	21	17	27	25	10	177		
	65+ years	19	5	7	18	24	10	17	30	21	45	48	42	40	326		
New Castle County	0-4 years	0	1	1	2	1	3	4	6	1	5	4	7	6	41	355	50.9%
	5-24 years	0	1	4	0	1	2	2	3	3	2	6	1	4	29		
	25-49 years	3	2	1	2	2	3	5	5	6	7	5	6	3	50		
	50-64 years	2	6	1	4	2	4	7	6	9	10	14	9	5	79		
	65+ years	6	2	4	5	11	7	8	19	6	22	28	19	19	156		
Kent County	0-4 years	0	1	3	1	1	0	0	0	0	4	0	2	0	12	167	24.0%
	5-24 years	0	0	0	0	0	0	1	0	1	1	0	1	0	4		
	25-49 years	4	1	2	1	2	0	1	3	2	0	1	1	2	20		
	50-64 years	4	1	4	7	3	0	1	4	9	5	8	9	2	57		
	65+ years	10	2	0	6	7	0	1	6	5	9	11	6	11	74		
Sussex County	0-4 years	1	0	1	1	0	2	1	2	0	3	1	0	3	15	175	25.1%
	5-24 years	0	0	1	0	0	0	1	1	1	1	1	2	0	8		
	25-49 years	0	0	0	1	1	1	1	3	1	1	2	2	2	15		
	50-64 years	1	2	1	3	4	2	4	4	3	2	5	7	3	41		
	65+ years	3	1	3	7	6	3	8	5	10	14	9	17	10	96		

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

Influenza-Related Deaths	Wks 40-49	Wk 50	Wk 51	Wk 52	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	YTD
	0	0	0	1	2	2	0	2	4	1	1	2	1	16

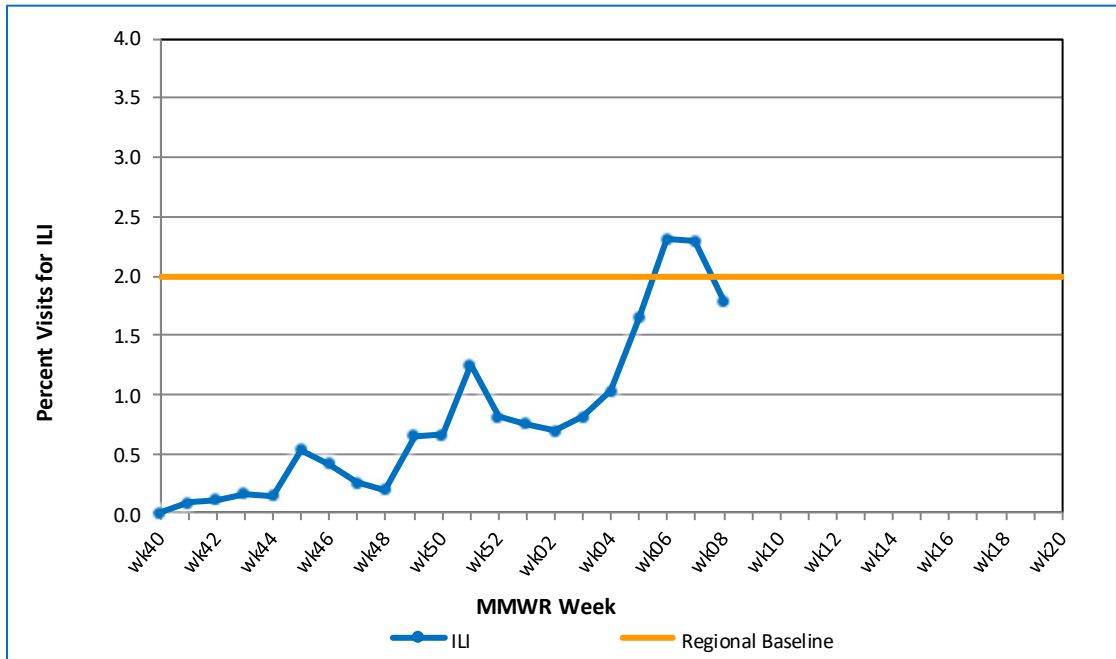
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19

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)	4,511

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.

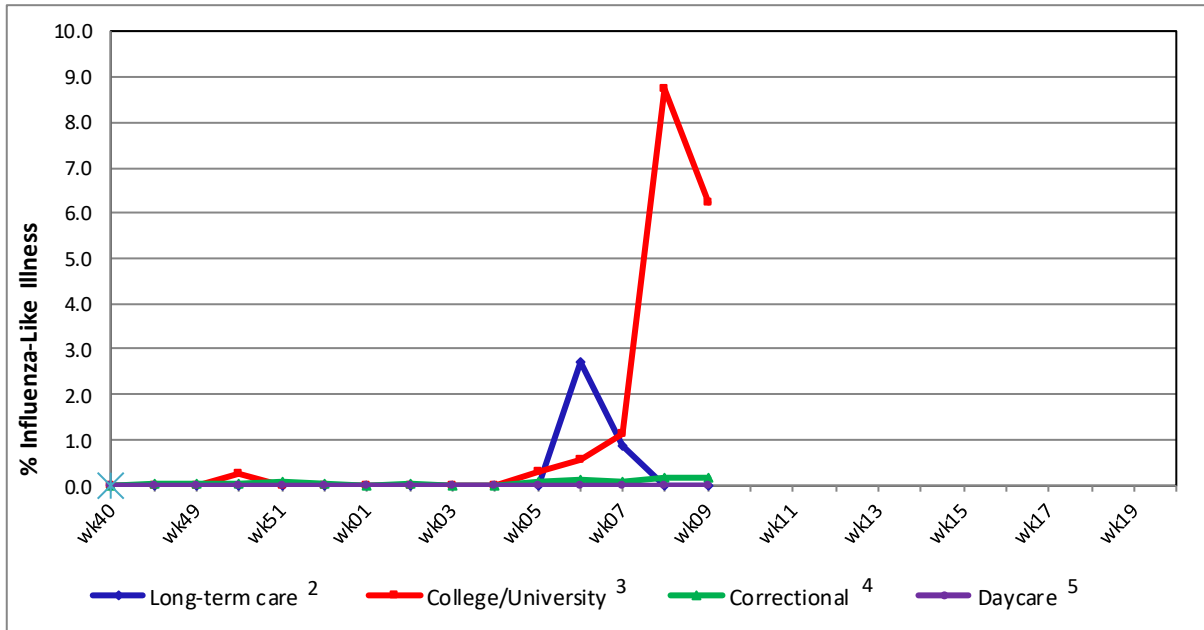
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19



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

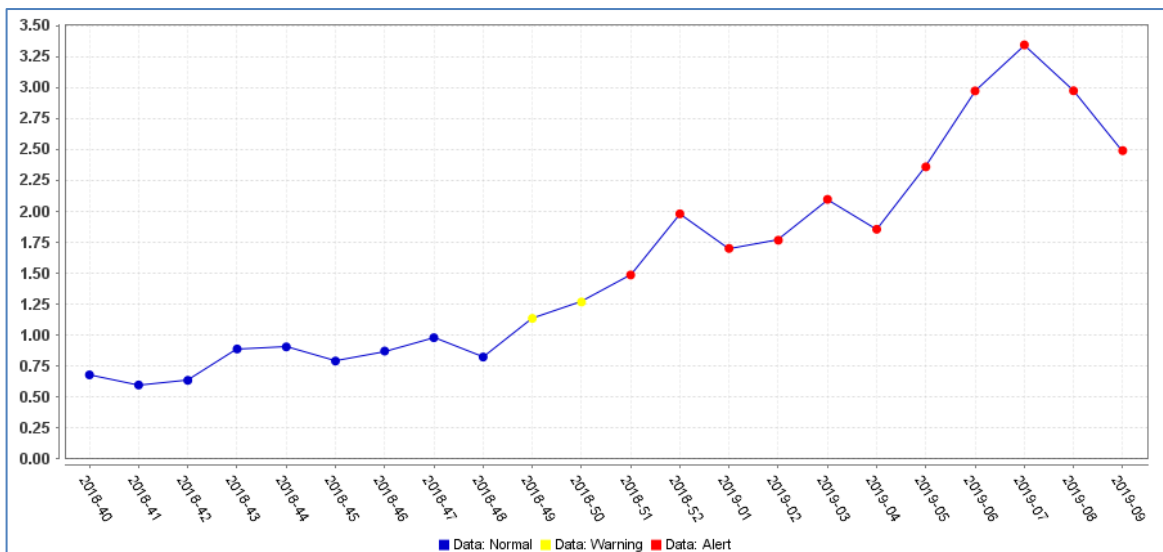


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19

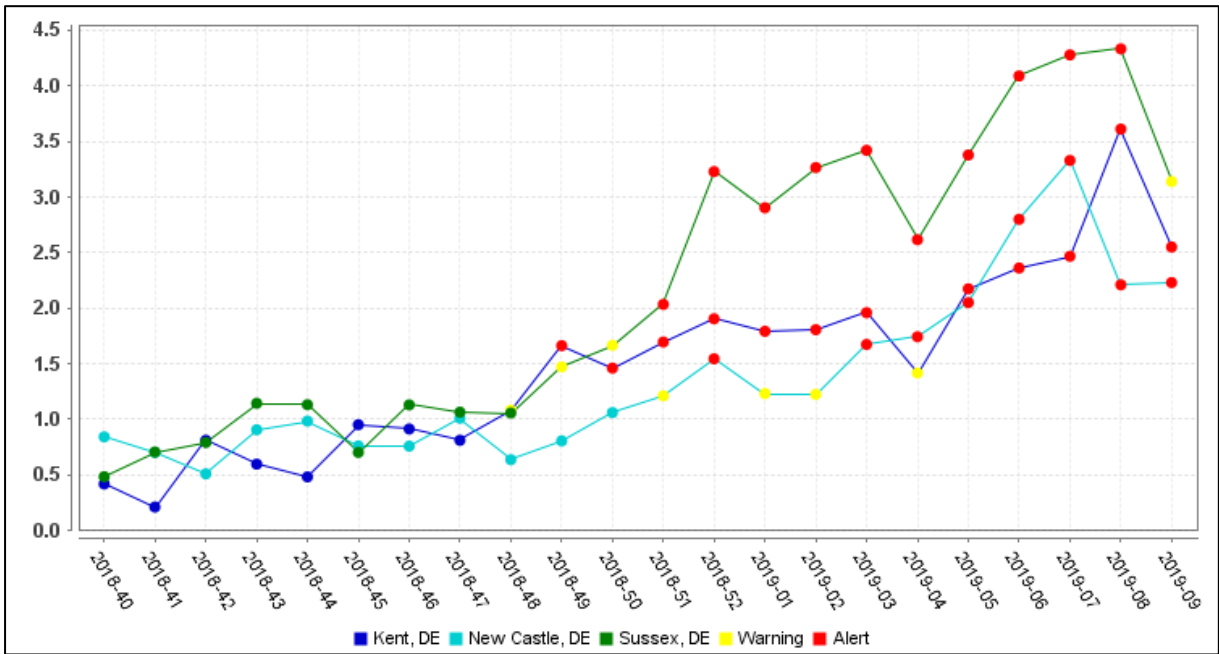


Figure 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19

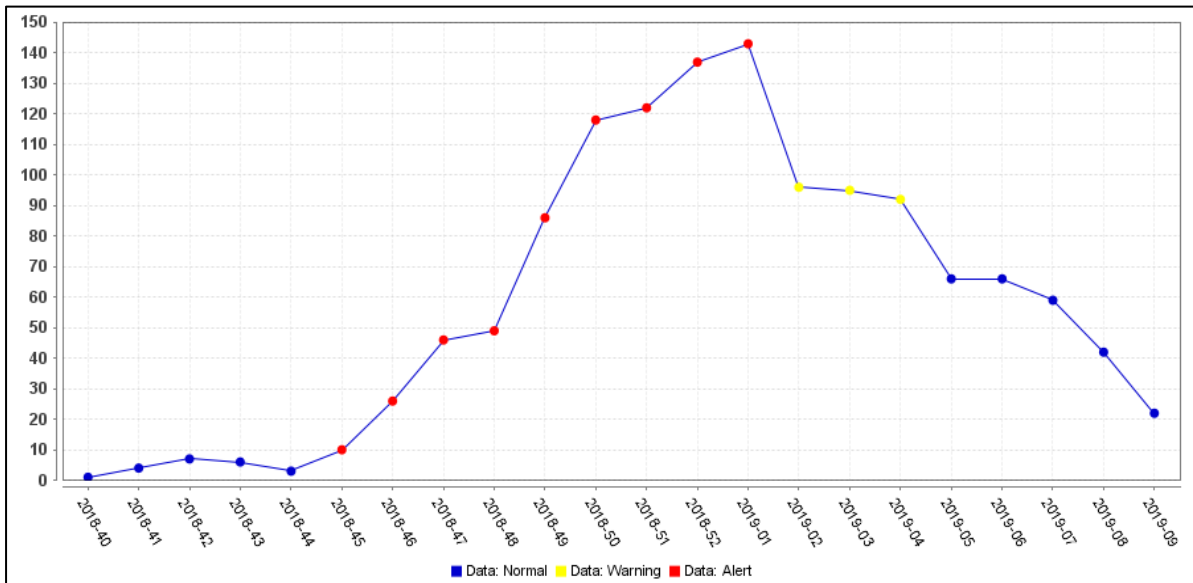
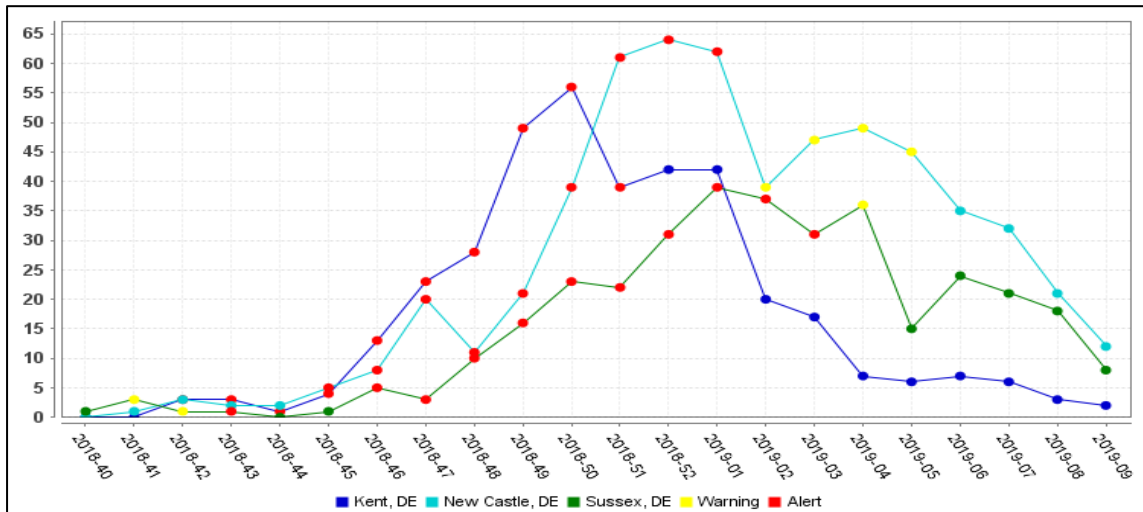


Figure 5b. County-specific numbers of ED visits due to RSV by MMWR Week, Delaware, 2018-19



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 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, with influenza A(H1N1)pdm09 as the dominant subtype, followed by influenza A(H3N2). Influenza activity decreased in Canada

In the Caribbean Influenza virus activity decreased in the subregion. In Jamaica, influenza detection continues increased with influenza A circulating. ILI consultations increased in some French Territories; in Saint Lucia the number of ILI cases increased among children <5 years of age and surpassed the seasonal threshold.

In Central America, epidemiologic indicators remained at moderate levels and influenza activity was low throughout the sub-region with influenza A(H1N1)pdm09. In Guatemala and Cota Rica, influenza activity continue to increase with influenza A (H1N1)pdm09 predominance. Overall, in the subregion RSV activity decreased; while in El Salvador RSV activity increased.

In Europe, influenza activity remained elevated across the continent and was reported as widespread in most of the countries. Influenza A viruses co-circulated

In North Africa, influenza activity remained elevated.

In Western Asia, influenza activity peaked is some countries and increased in others, with all seasonal influenza subtypes co-circulating. In East Asia, influenza activity appeared to decrease overall, with influenza A(H1N1)pdm09 virus predominating. In Southern Asia, influenza activity remained elevated overall with influenza A viruses predominating.

Reference: World Health Organization (WHO), 2019. Influenza Update number 336 (3/4/2019). Retrieved 3/6/19 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.