



Delaware Weekly Influenza Report

MMWR Week 4 (January 20 - 26 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 4 (January 20 - 26, 2019) Influenza activity increased in the United States. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate. Geographic spread during week 4 is **Widespread influenza activity** was reported by 45 states (Alabama, Arizona, Arkansas, California, Connecticut, **Delaware**, Florida, Georgia, Idaho, Illinois, 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, Wisconsin and Wyoming). **Regional influenza activity** was reported by Puerto Rico and three states (Colorado, Indiana and West Virginia). **Local influenza activity** was reported by Alaska and Hawaii. **Sporadic influenza activity** was reported by the District of Columbia and 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 4, there were 320 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 1,612 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI is 1.03% compared with the 2018-2019 baseline of 2.0%. Nationally, ILI increased to 3.8% from 3.3%, above the national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 4:

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.	
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		Week 40	Week 41	Week 42	Week 43	Week 44	Week 45	Week 46	Week 47	Week 48	Week 49	Week 50	Week 51	Week 52	Week 01	Week 02	Week 03	Week 04	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	1	0	1	4	4	3	3	6	6	10	26	42	36	43	33	46	49	313	1,612	
	A / 2012 H3N2	0	0	0	0	2	1	0	0	0	0	2	5	5	4	0	4	6	29		
	A / no subtype	4	3	2	3	14	15	7	17	40	35	68	131	182	148	130	179	258	1236		
	Co-infection	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3		
	B / Yamagata	0	0	2	0	0	0	0	0	1	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		
	B / no lineage	1	0	0	0	0	0	0	0	0	1	2	1	1	4	4	8	6	28		
New Castle County	A / 2009 H1N1	1	0	0	3	2	2	1	4	4	6	21	31	24	29	26	31	35	220	649	40.3%
	A / 2012 H3N2	0	0	0	0	1	0	0	0	0	0	2	3	5	3	0	3	5	22		
	A / no subtype	1	1	0	3	3	4	2	1	11	9	27	41	55	34	52	51	108	403		
	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
	B / Yamagata	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		
	B / no lineage	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	3		
Kent County	A / 2009 H1N1	0	0	0	1	2	1	2	2	2	3	4	6	6	6	2	6	8	51	432	26.8%
	A / 2012 H3N2	0	0	0	0	1	1	0	0	0	0	2	0	2	0	1	0	0	5		
	A / no subtype	3	2	2	0	7	10	5	12	24	18	27	48	50	46	20	34	52	360		
	Co-infection	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	3		
	B / Victoria	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	13		
Sussex County	A / 2009 H1N1	0	0	1	0	0	0	0	0	0	1	1	5	6	8	5	9	6	42	531	32.9%
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		
	A / no subtype	0	0	0	0	4	1	0	4	5	8	14	42	77	68	58	94	98	473		
	Co-infection	0	1	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	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		
	B / no lineage	1	0	0	0	0	0	0	0	0	1	1	1	0	3	2	1	2	12		

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

Confirmed Flu Cases by Age Group		Week 40	Week 41	Week 42	Week 43	Week 44	Week 45	Week 46	Week 47	Week 48	Week 49	Week 50	Week 51	Week 52	Week 01	Week 02	Week 03	Week 04	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	421	1,612	
	5-24 years	1	1	2	1	4	4	4	8	8	15	31	64	48	27	36	61	91	406		
	25-49 years	3	1	0	2	5	3	2	5	16	8	20	45	54	48	32	51	69	364		
	50-64 years	0	1	2	2	3	1	0	3	7	9	16	17	31	32	24	31	46	225		
	65+ years	2	0	0	3	5	2	1	0	9	7	6	13	29	37	20	25	37	196		
New Castle County	0-4 years	0	0	0	0	1	3	1	2	3	2	10	21	28	17	25	25	45	183	649	40.3%
	5-24 years	0	0	0	0	1	2	1	1	2	7	18	27	20	12	14	19	40	164		
	25-49 years	2	0	0	2	1	0	1	1	4	3	11	13	21	16	17	19	24	135		
	50-64 years	0	1	0	1	2	1	0	1	2	1	9	9	7	8	14	11	20	87		
	65+ years	0	0	0	3	1	0	0	0	4	2	3	5	9	14	8	11	20	80		
Kent County	0-4 years	0	0	0	0	0	5	2	4	4	4	10	9	8	18	7	13	11	95	432	26.8%
	5-24 years	0	1	2	0	3	2	3	4	5	7	10	24	10	7	5	15	19	117		
	25-49 years	1	1	0	0	3	3	1	4	11	3	7	17	13	10	7	13	18	112		
	50-64 years	0	0	2	1	0	0	0	2	4	5	2	6	13	5	2	4	9	55		
	65+ years	2	0	0	0	4	2	1	0	3	2	2	0	12	13	3	2	7	53		
Sussex County	0-4 years	0	1	1	0	2	1	0	1	0	1	5	10	26	20	23	31	21	143	531	32.9%
	5-24 years	1	0	0	1	0	0	0	3	1	1	3	13	18	8	17	27	32	125		
	25-49 years	0	0	0	0	1	0	0	0	1	2	2	15	20	22	8	19	27	117		
	50-64 years	0	0	0	0	1	0	0	0	1	3	5	2	11	19	8	16	17	83		
	65+ years	0	0	0	0	0	0	0	0	2	3	1	8	8	10	9	12	10	63		

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*

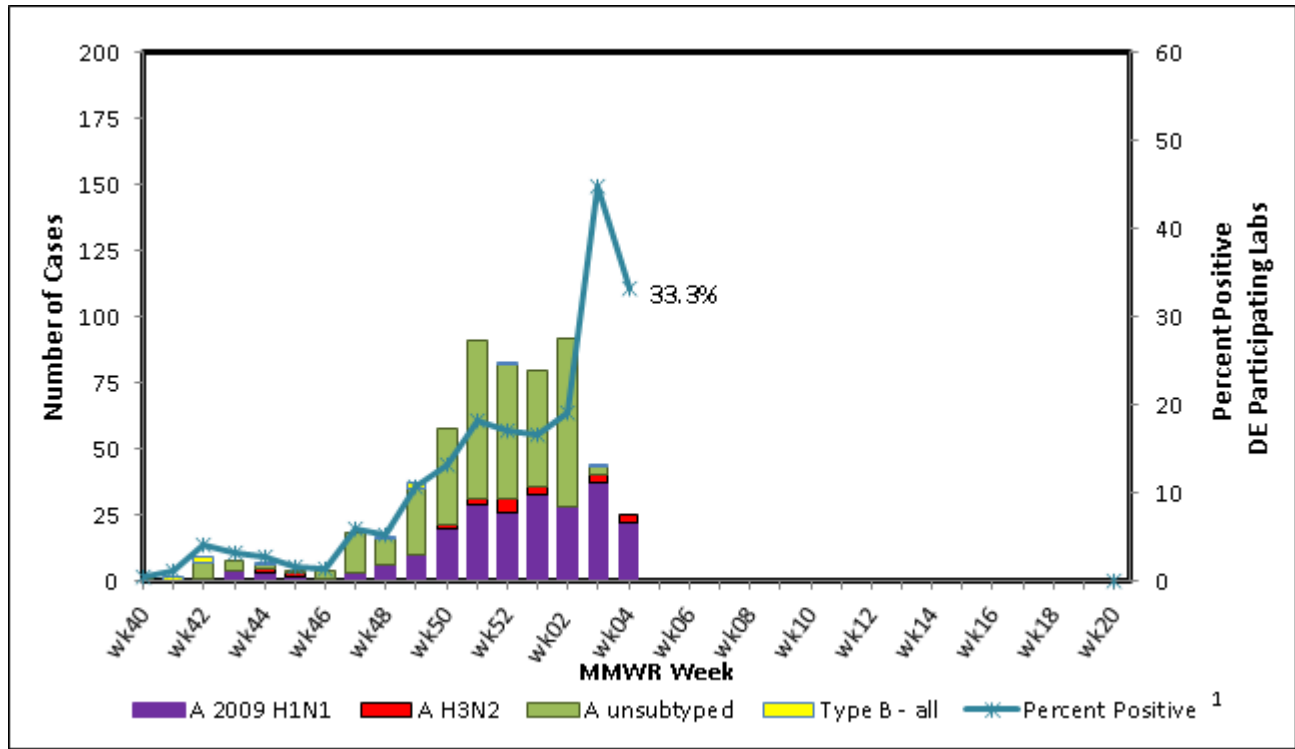


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

Hospitalized Flu Cases by Age Group		Week 40	Week 41	Week 42	Week 43	Week 44	Week 45	Week 46	Week 47	Week 48	Week 49	Week 50	Week 51	Week 52	Week 01	Week 02	Week 03	Week 04	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	0	0	1	0	0	0	0	0	0	0	2	5	4	2	5	5	8	32	294	
	5-24 years	0	0	0	0	0	0	0	0	0	0	1	5	0	1	2	4	4	17		
	25-49 years	0	1	0	1	2	1	0	1	0	1	3	3	4	5	4	6	11	43		
	50-64 years	0	0	1	2	1	0	0	0	1	2	9	6	13	9	6	9	14	73		
	65+ years	0	0	0	2	5	2	1	0	4	5	5	7	18	24	10	16	30	129		
New Castle County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	1	2	1	3	4	6	18	143	48.6%
	5-24 years	0	0	0	0	0	0	0	0	0	0	1	4	0	1	2	2	3	13		
	25-49 years	0	0	0	1	1	0	0	0	0	1	2	1	2	2	3	4	5	22		
	50-64 years	0	0	0	1	0	0	0	0	1	0	6	1	4	2	4	4	6	29		
	65+ years	0	0	0	2	1	0	0	0	2	1	2	4	5	11	7	7	19	61		
Kent County	0-4 years	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	0	6	76	25.9%
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1		
	25-49 years	0	1	0	0	1	1	0	1	0	0	1	2	1	2	0	1	3	14		
	50-64 years	0	0	1	1	0	0	0	0	0	2	1	4	6	3	0	1	4	23		
	65+ years	0	0	0	0	4	2	1	0	1	2	2	0	6	7	0	1	6	32		
Sussex County	0-4 years	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	1	2	8	75	25.5%
	5-24 years	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3		
	25-49 years	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	7		
	50-64 years	0	0	0	0	1	0	0	0	0	0	2	1	3	4	2	4	4	21		
	65+ years	0	0	0	0	0	0	0	0	1	2	1	3	7	6	3	8	5	36		

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

Influenza-Related Deaths	Week 40	Week 41	Week 42	Week 43	Week 44	Week 45	Week 46	Week 47	Week 48	Week 49	Week 50	Week 51	Week 52	Week 01	Week 02	Week 03	Week 04	YTD
	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	2	7

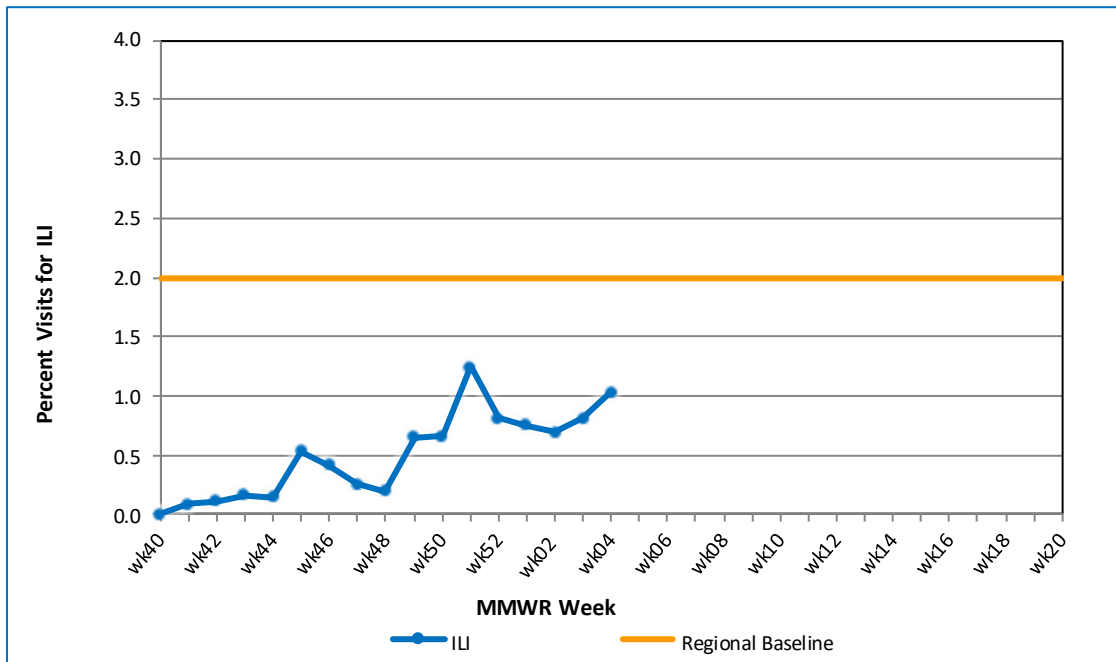
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19

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)	1,612

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.

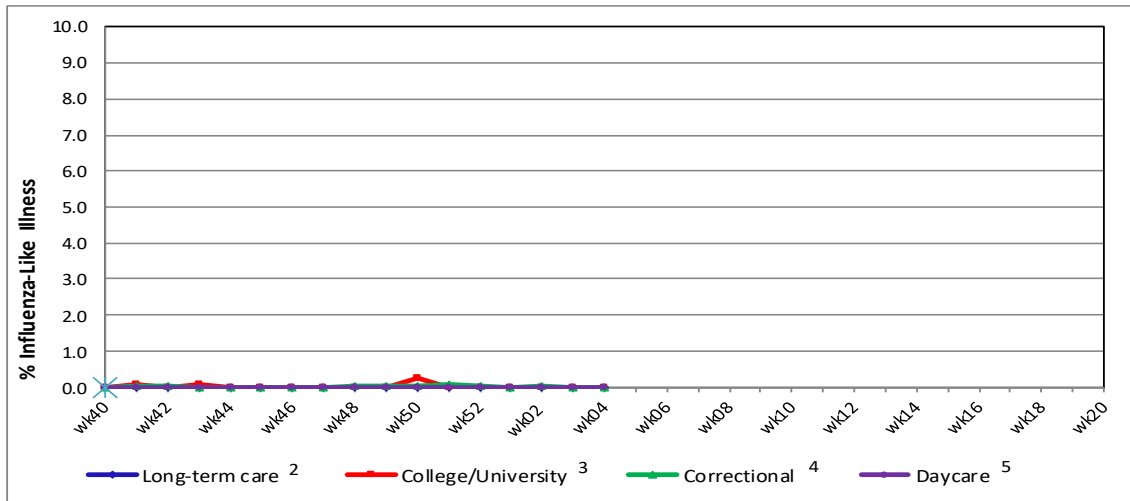
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19



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. Six long-term care facilities reported.
- ³ % ILI= percentage of student visits for ILI; One university 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

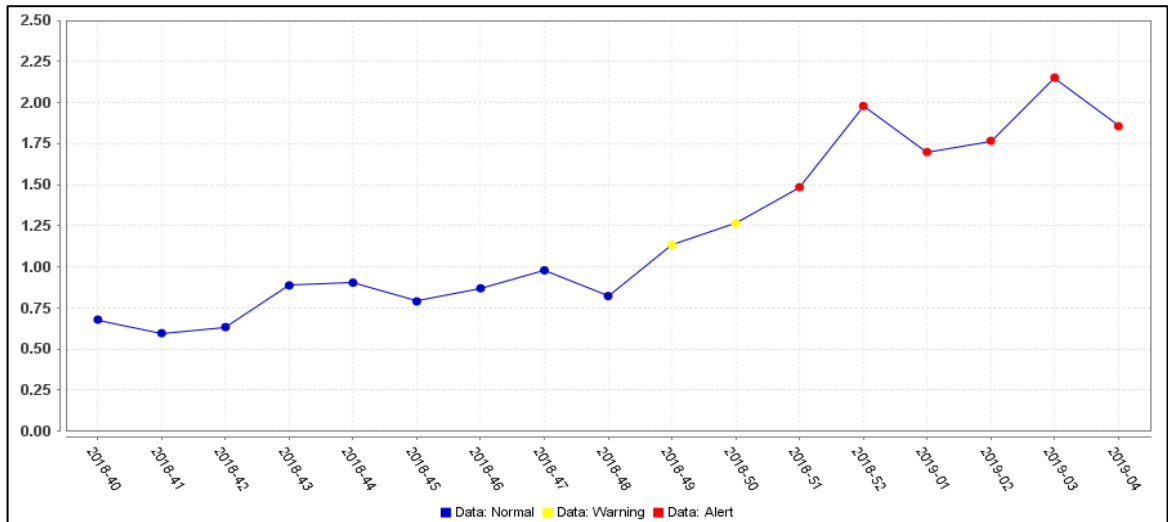


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19

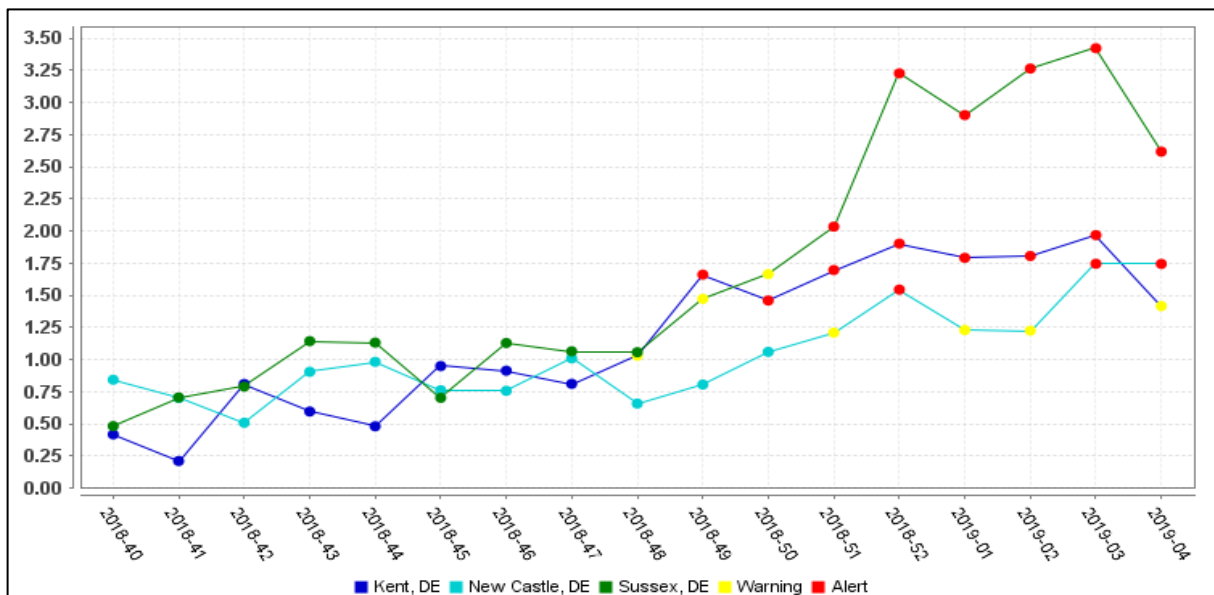


Figure 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19

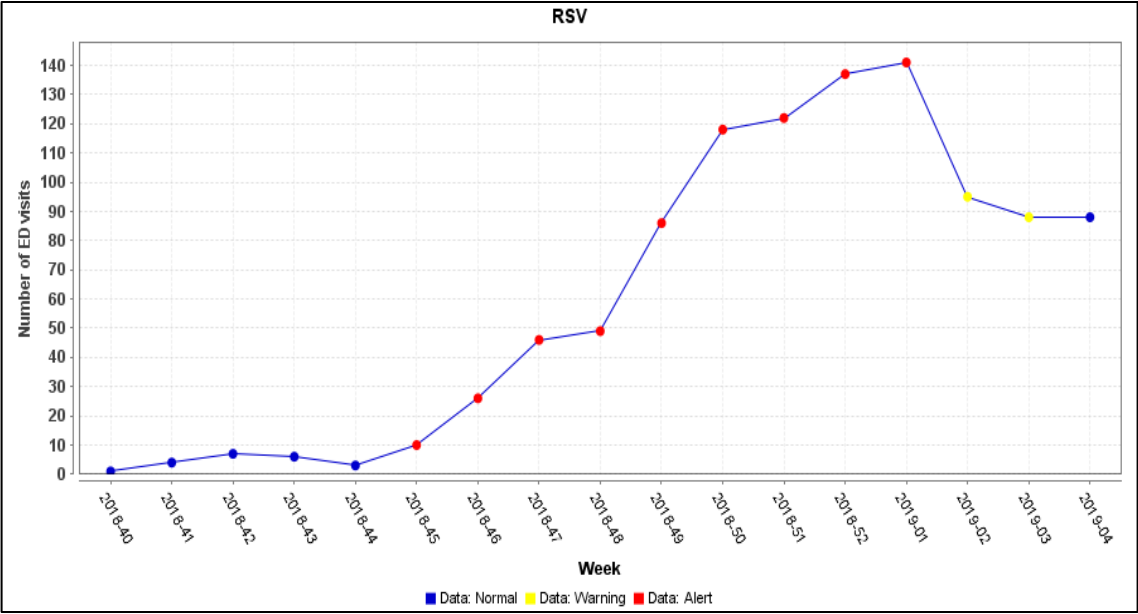
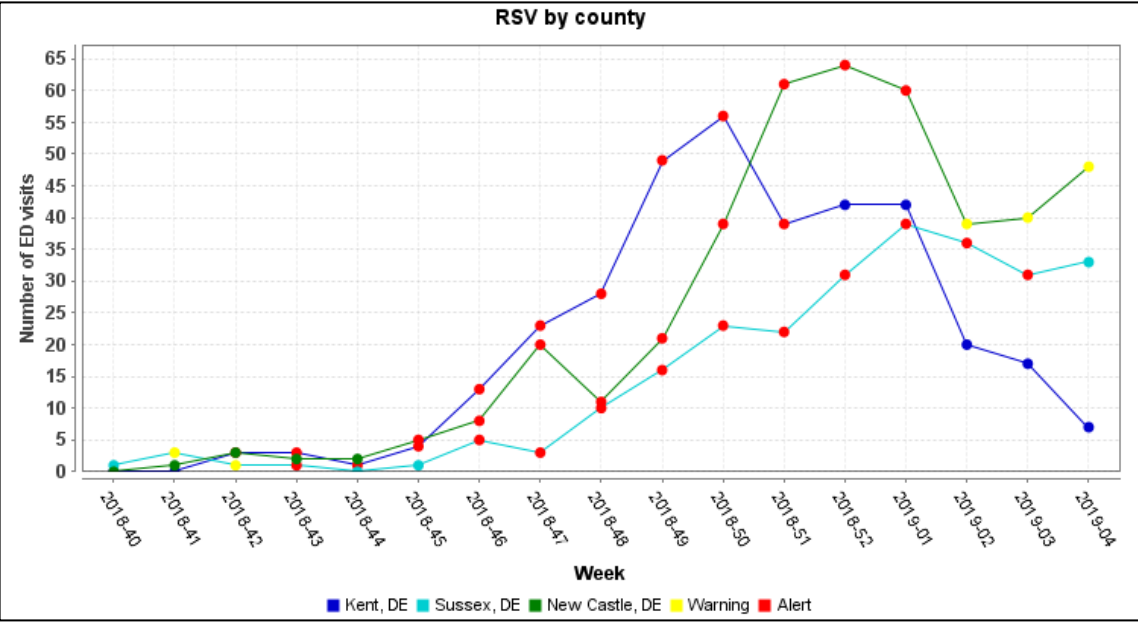


Figure 5b. County-specific percentages of ED visits due to RSV by MMWR Week, Delaware 2018-19



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 slowly. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels with the exception of some parts in Australia.

In North America influenza activity remained elevated overall with influenza A(H1N1)pdm09 predominating. In the United States and Canada, influenza activity continued to increase, with influenza A(H1N1)pdm09 predominating.

In México, high influenza-associated SARI activity was reported with predominance of influenza A(H1N1)pdm09.

In the Caribbean, influenza virus activity increased and higher RSV activity was reported throughout most of the sub-region. In Cuba, high SARI activity was due to influenza A(H1N1)pdm09 and RSV circulation.

In Central America, epidemiologic indicators remained at moderate levels and influenza activity decreased throughout the sub-region with influenza A(H1N1)pdm09 and B co-circulating. Overall, RSV activity decreased; while in Costa Rica and Honduras RSV circulation continued to be elevated. In Costa Rica and Nicaragua, moderate pneumonia and SARI activity were reported associated with influenza and RSV.

In Europe, influenza activity continued to increase, with both A viruses circulating. Influenza type A virus detections dominated with A(H1N1)pdm09 viruses being more prevalent than A(H3N2). Very few influenza B viruses were detected.

In Western Asia, influenza activity continued to increase in some countries and appeared to decrease across countries of the Arabian Peninsula. In East Asia, influenza activity continued to increase, with influenza A(H1N1)pdm09 most frequently detected. In Southern Asia, influenza detections remained elevated overall. Influenza activity continued to increase in Iran (Islamic Republic of) with influenza A(H3N2) the predominant circulating virus.

Reference: World Health Organization (WHO), 2019. Influenza Update number 333 (1/21/2019). Retrieved January 25 2019, 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.