

Delaware Weekly Influenza Report MMWR Week 6 (February 3 – 9, 2019) Delaware Division of Public Health

National Influenza Synopsis 2018-2019:

Delaware Influenza Surveillance 2018-2019:

During MMWR Week 6, there were 623 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total to 2,673 for the 2018-2019 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI increased to 2.3% from 1.6%, above the 2018-2019 baseline of 2.0%. Nationally, ILI increased to 4.8% from 4.3%, above the national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 6:

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.

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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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.

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

	rmed Flu s by Subtype / ge	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	YTD	YTD Total	YTD County %
	A / 2009 H1N1	1	0	1	4	4	3	3	6	6	10	26	42	36	43	33	47	55	49	28	397		
	A / 2012 H3N2	0	0	0	0	2	1	0	0	0	0	2	5	5	4	0	4	7	26	31	87		
DE	A / no subtype	4	3	2	3	14	15	7	17	40	35	68	131	182	148	130	196	253	339	548	2,135	0.070	
E	Co-infection	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	2,673	
STATEWIDE	B / Yamagata	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3		
Ś	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	1	0	0	0	0	0	0	0	0	1	2	1	1	4	4	8	6	4	16	48		
	A / 2009 H1N1	1	0	0	3	2	2	1	4	4	6	21	31	24	29	26	32	39	34	16	275		
	A / 2012 H3N2	0	0	0	0	1	0	0	0	0	0	2	3	5	3	0	3	6	16	23	62	1,099	41.1%
₽ _	A / no subtype	1	1	0	3	3	4	2	1	11	9	27	41	55	34	52	67	104	123	219	757		
w Cast	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
New Castle County	B / Yamagata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Z	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	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	4		
	A / 2009 H1N1	0	0	0	1	2	1	2	2	2	3	4	6	6	6	2	6	9	9	12	73		
	A / 2012 H3N2	0	0	0	0	1	1	0	0	0	0	0	2	0	1	0	0	0	4	4	13		
粪	A / no subtype	3	2	2	0	7	10	5	12	24	18	27	48	50	46	20	35	51	62	132	554		
Kent	Co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	671	25.1%
0	B / Yamagata	0	0	2	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0	0	2	7	4	2	13	28		
	A / 2009 H1N1	0	0	1	0	0	0	0	0	0	1	1	5	6	8	5	9	7	6	0	49		
	A / 2012 H3N2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6	4	12		
že y	A / no subtype	0	0	0	0	4	1	0	4	5	8	14	42	77	68	58	94	98	153	197	823		
Sussex	Co-infection	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	902	33.8%
80	B / Yamagata	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		
	B / no lineage	1	0	0	0	0	0	0	0	0	1	1	1	0	3	2	1	2	1	3	16		

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

	rmed Flu s by Age	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	YTD	YTD Total	YTD County %
ш	0-4 years	0	1	1	0	3	9	3	7	7	7	25	40	62	55	55	69	77	86	121	628		
STATEWIDE	5-24 years	1	1	2	1	4	4	4	8	8	15	31	64	48	27	36	65	91	158	244	812		
1 1/2	25-49 years	3	1	0	2	5	3	2	5	16	8	20	45	54	48	32	57	71	77	111	560	2,673	
STA	50-64 years	0	1	2	2	3	1	0	3	7	9	16	17	31	32	24	37	46	55	68	354		
	65+ years	2	0	0	3	5	2	1	0	9	7	6	13	29	37	20	27	37	42	79	319		
	0-4 years	0	0	0	0	1	3	1	2	3	2	10	21	28	17	25	25	45	42	58	283	1,099	
New Castle County	5-24 years	0	0	0	0	1	2	1	1	2	7	18	27	20	12	14	22	40	61	84	312		
w Cast County	25-49 years	2	0	0	2	1	0	1	1	4	3	11	13	21	16	17	25	25	36	51	229		41.1%
န္နဲ့ပ	50-64 years	0	1	0	1	2	1	0	1	2	1	9	9	7	8	14	17	20	23	31	147		
_	65+ years	0	0	0	3	1	0	0	0	4	2	3	5	9	14	8	13	20	12	34	128		
	0-4 years	0	0	0	0	0	5	2	4	4	4	10	9	8	18	7	13	11	14	34	143	671	
_	5-24 years	0	1	2	0	3	2	3	4	5	7	10	24	10	7	5	16	19	28	62	208		
Kent County	25-49 years	1	1	0	0	3	3	1	4	11	3	7	17	13	10	7	13	18	14	32	158		25.1%
ჯ გ	50-64 years	0	0	2	1	0	0	0	2	4	5	2	6	13	5	2	4	9	13	16	84		
	65+ years	2	0	0	0	4	2	1	0	3	2	2	0	12	13	3	2	7	8	17	78		
	0-4 years	0	1	1	0	2	1	0	1	0	1	5	10	26	20	23	31	21	30	29	202		
nty sex	5-24 years	1	0	0	1	0	0	0	3	1	1	3	13	18	8	17	27	32	69	98	292		
Sussex	25-49 years	0	0	0	0	1	0	0	0	1	2	2	15	20	22	8	19	28	27	28	173	73 902	33.8%
S O	50-64 years	0	0	0	0	1	0	0	0	1	3	5	2	11	19	8	16	17	19	21	123		
	65+ years	0	0	0	0	0	0	0	0	2	3	1	8	8	10	9	12	10	21	28	112		

¹ Based on patients with positive nucleic acid or viral culture test results reported to the Division of Public Health.

MMWR Week 65 = February 3 - 9, 2019

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*

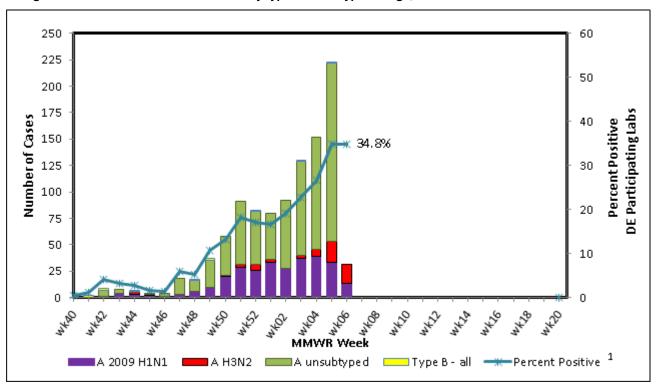


Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2018-19

	oitalized Flu ses 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	YTD	YTD Total	YTD County %
ш	0-4 years	0	0	1	0	0	0	0	0	0	0	2	5	4	2	5	5	8	1	12	45		
STATEWIDE	5-24 years	0	0	0	0	0	0	0	0	0	0	1	5	0	1	2	4	4	5	4	26		
7EV	25-49 years	0	1	0	1	2	1	0	1	0	1	3	3	4	5	4	7	11	9	8	61	442	
STA	50-64 years	0	0	1	2	1	0	0	0	1	2	9	6	13	9	6	12	14	21	17	114		
	65+ years	0	0	0	2	5	2	1	0	4	5	5	7	18	24	10	17	30	21	45	196		
	0-4 years	0	0	0	0	0	0	0	0	0	0	1	1	2	1	3	4	6	1	5	24	219	
stle .y	5-24 years	0	0	0	0	0	0	0	0	0	0	1	4	0	1	2	2	3	3	2	18		
New Castle County	25-49 years	0	0	0	1	1	0	0	0	0	1	2	1	2	2	3	5	5	6	7	36		49.5%
နိုင်	50-64 years	0	0	0	1	0	0	0	0	1	0	6	1	4	2	4	7	6	9	10	51		
	65+ years	0	0	0	2	1	0	0	0	2	1	2	4	5	11	7	8	19	6	22	90		
	0-4 years	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	0	0	4	10	112	
>	5-24 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3		
Kent County	25-49 years	0	1	0	0	1	1	0	1	0	0	1	2	1	2	0	1	3	2	0	16		25.3%
<u>-</u> S	50-64 years	0	0	1	1	0	0	0	0	0	2	1	4	6	3	0	1	4	9	5	37		
	65+ years	0	0	0	0	4	2	1	0	1	2	2	0	6	7	0	1	6	5	9	46		
	0-4 years	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	1	2	0	3	11		
Sussex	5-24 years	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	5		
Sus	25-49 years	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1	1	9	111	25.1%
,, 0	50-64 years	0	0	0	0	1	0	0	0	0	0	2	1	3	4	2	4	4	3	2	26		
	65+ years	0	0	0	0	0	0	0	0	1	2	1	3	7	6	3	8	5	10	14	60		

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

	nfluenza- Related	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	YTD	
ľ	Deaths	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	2	4	1	12	ì

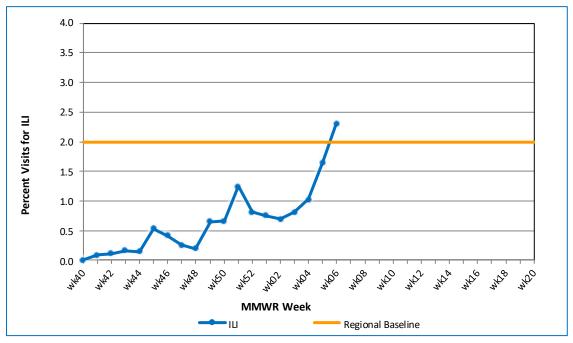
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2018-19

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)	2,673

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.

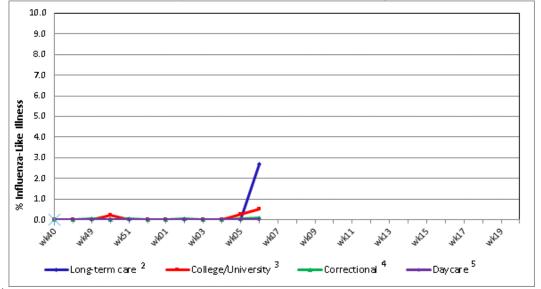
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2018-19



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.

igure 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.

Figure 4a. Percentage of emergency department (ED) visits due to ILI/Flu by MMWR Week, Delaware, 2018-19

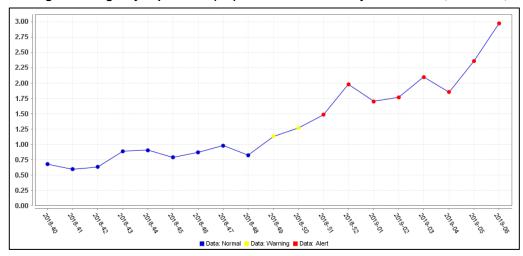
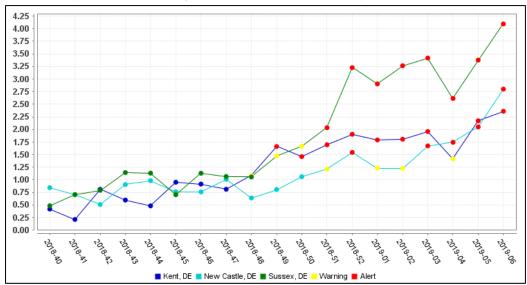


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2018-19



 $^{^2~\%}$ 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 5a. Number of ED visits due to Respiratory Syncytial Virus (RSV) by MMWR Week, Delaware, 2018-19

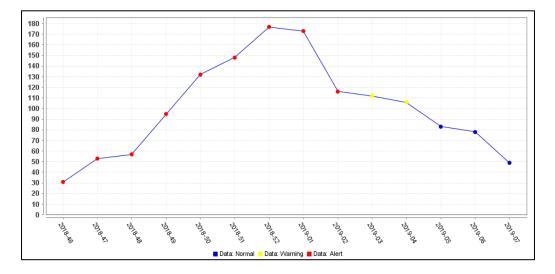
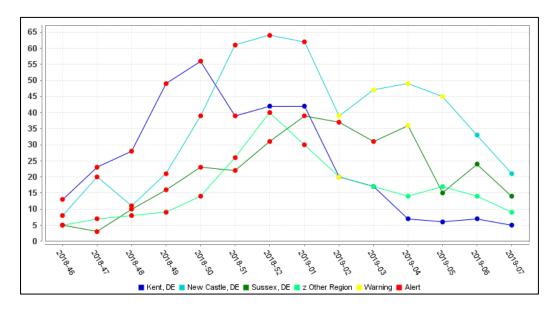


Figure 5b. County-specific numbers of ED visits due to RSV by MMWR Week, Delaware, 2018-19



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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.

In North America, influenza activity appeared to decrease slightly with influenza A(H1N1)pdm09 predominating. Overall, influenza activity slightly decreased in Canada and increased in the United States, 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 lower RSV activity was reported throughout most of the sub-region. In Cuba and Suriname, SARI activity was low with increased influenza A(H1N1)pdm09 circulation.

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. Overall, RSV activity decreased; while in Costa Rica, RSV circulation continued elevated. In Costa Rica, moderate pneumonia and SARI activity were reported associated with influenza and RSV.

In Europe, influenza activity continued to increase, with both A viruses circulating.

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

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 virus predominating. 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 334 (2/4/2019). Retrieved February 8 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.