



Delaware Weekly Influenza Report

MMWR Week 20 (May 14 - 20, 2017)

Delaware Division of Public Health

Note: This is the final Delaware Influenza Report for the 2016-2017 season.

The first report of the 2017-2018 season will be for MMWR Week 40, October 1 – 7, 2017 and issued October 13, 2017.

National Influenza Synopsis 2016-2017:

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 14 - 20, 2017) influenza activity decreased in the United States. The most frequently identified influenza virus type reported by public health laboratories during week 20 was influenza B. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Regional influenza activity** was reported by Guam and two states (Arizona and Maine). **Local influenza activity** was reported by Puerto Rico and nine states (Alaska, California, Connecticut, Louisiana, Massachusetts, New Hampshire, Ohio, South Carolina and Washington). **Sporadic influenza activity** was reported by the District of Columbia and 34 states (Alabama, Arkansas, Colorado, Delaware, Florida, Georgia, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin and Wyoming). **No influenza activity** was reported by the U.S. Virgin Islands and five states (Idaho, Illinois, Kansas, Rhode Island and Tennessee). Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2016-2017:

During MMWR Week 20 there were two laboratory-confirmed cases of influenza reported among Delaware residents and the total is 4,554 cases for the 2016-2017 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI is 0.15% (Delaware's 2016-2017 baseline is 2.2%). Nationally, ILI is 1.3%, below the national baseline of 2.2%.

Level of Influenza Activity in Delaware, MMWR Week 20:

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.
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: <i>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.</i> 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 2016-2017 Region 3 (DE, DC, MD, PA, VA and WV) baseline = 2.2%.

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 Delaware and other states with ≤ four counties.

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Table 1a. Influenza positive¹ cases reported² statewide and county, by subtype (A) / lineage (B)³ and MMWR Week, Delaware 2016-17

Confirmed Flu Cases by Subtype / Lineage		Wk 40-52	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05	Wk 06	Wk 07	Wk 08	Wk 09	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	A / 2009 H1N1	1	1	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7	4,554	
	A / 2012 H3N2	89	27	42	42	52	69	101	72	92	36	32	27	15	17	12	5	0	2	1	1	0	733		
	A / no subtype	104	45	57	71	84	159	250	286	399	250	203	160	172	139	53	27	6	4	1	0	0	2,471		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	3		
	B / Yamagata	1	1	3	5	3	5	4	7	10	9	10	9	13	13	10	9	6	3	1	1	0	123		
	B / Victoria	0	2	0	0	1	0	3	1	0	3	2	1	0	1	3	1	4	1	0	0	0	23		
B / no lineage	5	9	3	9	12	14	38	52	86	95	88	127	153	212	134	74	42	16	16	9	1	1,195			
New Castle County	A / 2009 H1N1	0	1	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	6	2,177	47.8%
	A / 2012 H3N2	69	21	34	37	39	52	85	54	72	22	18	18	5	13	8	3	0	2	1	1	0	553		
	A / no subtype	22	20	23	28	47	93	135	139	156	105	72	55	62	52	32	10	5	1	1	0	0	1,059		
	A,B co-infection	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2		
	B / Yamagata	1	0	1	3	3	3	4	4	4	4	2	6	5	4	5	5	3	2	0	1	0	60		
	B / Victoria	0	2	0	0	1	0	3	0	0	0	0	0	0	1	2	0	2	1	0	0	0	12		
B / no lineage	3	0	0	6	9	8	22	18	26	30	27	43	49	95	59	40	24	12	9	5	1	486			
Kent County	A / 2009 H1N1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,379	30.3%
	A / 2012 H3N2	11	0	1	2	4	6	4	4	3	2	6	0	3	2	2	1	0	0	0	0	0	51		
	A / no subtype	56	15	27	23	21	46	79	96	137	98	91	61	61	52	11	9	0	0	0	0	0	883		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
	B / Yamagata	0	0	1	0	0	0	0	0	2	2	3	1	2	5	1	2	0	0	0	0	0	19		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2		
B / no lineage	2	8	3	2	1	1	11	18	39	30	37	58	65	76	40	19	8	0	3	2	0	423			
Sussex County	A / 2009 H1N1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	998	21.9%
	A / 2012 H3N2	9	6	7	3	9	11	12	14	17	12	8	9	7	2	2	1	0	0	0	0	0	129		
	A / no subtype	26	10	7	20	16	20	36	51	106	47	40	44	49	35	10	8	1	3	0	0	0	529		
	B / Yamagata	0	1	1	2	0	2	0	3	4	3	5	2	6	4	4	2	3	1	1	0	0	44		
	B / Victoria	0	0	0	0	0	0	0	1	0	3	2	0	0	0	1	1	1	0	0	0	0	9		
	B / no lineage	0	1	0	1	2	5	5	16	21	35	24	26	39	41	35	15	10	4	4	2	0	286		

Table 1b. Influenza positive¹ cases reported² statewide and county, by age group and MMWR Week, Delaware 2016-17

Confirmed Flu Cases by Age Group		Wk 40-52	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05	Wk 06	Wk 07	Wk 08	Wk 09	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	27	15	24	24	26	39	68	65	119	74	67	59	62	61	39	21	17	3	5	1	0	816	4,554	
	5-24 years	41	23	35	42	59	88	202	202	204	138	132	113	129	146	62	30	9	7	5	3	0	1,669		
	25-49 years	52	13	13	25	18	44	56	61	94	60	50	58	70	58	31	17	12	3	2	4	1	742		
	50-64 years	34	14	12	16	21	27	29	42	67	54	36	44	37	45	24	17	10	6	3	1	0	539		
	65+ years	46	20	21	21	28	49	43	49	103	68	50	50	55	73	56	31	11	7	4	2	1	789		
New Castle County	0-4 years	7	9	12	10	20	27	54	41	67	37	30	30	21	30	28	11	13	2	4	0	0	453	2,177	47.8%
	5-24 years	20	10	19	26	36	61	123	103	88	62	33	41	45	67	33	16	6	4	3	2	0	797		
	25-49 years	26	8	8	16	10	20	35	30	34	19	20	22	18	18	14	7	3	2	1	3	1	315		
	50-64 years	15	5	7	10	14	23	19	17	26	18	19	11	11	22	10	9	6	5	2	0	0	249		
	65+ years	27	12	12	13	19	25	20	25	43	25	17	18	26	29	21	15	7	5	1	2	1	364		
Kent County	0-4 years	18	6	9	8	4	9	7	14	30	29	24	22	26	21	9	6	2	0	0	0	0	244	1,379	30.3%
	5-24 years	17	8	12	6	12	19	53	63	62	42	66	46	46	50	15	8	1	0	2	1	0	529		
	25-49 years	16	2	3	4	5	11	14	17	33	25	19	21	30	26	11	6	5	0	1	1	0	250		
	50-64 years	9	3	4	4	3	3	4	10	24	15	10	20	12	15	4	5	1	0	0	0	0	146		
	65+ years	9	4	4	5	2	11	16	14	32	22	18	12	17	23	15	6	0	0	0	0	0	210		
Sussex County	0-4 years	2	0	3	6	2	3	7	10	22	8	13	7	15	10	2	4	2	1	1	1	0	119	998	21.9%
	5-24 years	4	5	4	10	11	8	26	36	54	34	33	26	38	29	14	6	2	3	0	0	0	343		
	25-49 years	10	3	2	5	3	13	7	14	27	16	11	15	22	14	6	4	4	1	0	0	0	177		
	50-64 years	10	6	1	2	4	1	6	15	17	21	7	13	14	8	10	3	3	1	1	1	0	144		
	65+ years	10	4	5	3	7	13	7	10	28	21	15	20	12	21	20	10	4	2	3	0	0	215		

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 will be categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases¹ of influenza by type and subtype / lineage, by MMWR Week, Delaware 2016-17*

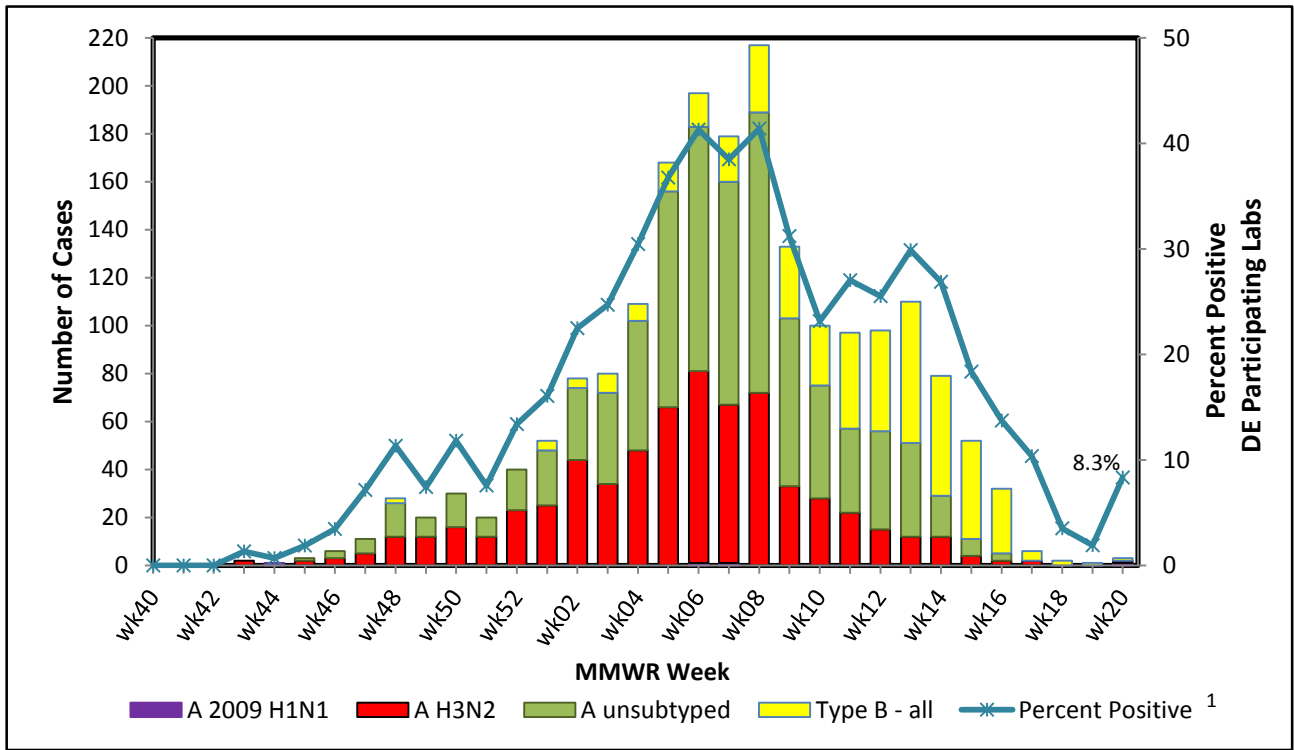


Table 2. Influenza-related hospitalizations statewide and county, by age group and MMWR Week, Delaware 2016-17

Hospitalized Flu Cases by Age Group		Wk 40-52	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05	Wk 06	Wk 07	Wk 08	Wk 09	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	2	2	2	2	1	0	6	6	7	0	1	0	1	3	0	1	0	2	1	1	0	0	38	777	
	5-24 years	3	1	2	4	3	6	11	11	6	6	1	3	1	4	3	0	1	1	1	0	0	0	68		
	25-49 years	8	2	2	4	3	6	7	4	6	4	1	6	7	6	4	1	0	0	0	1	1	0	73		
	50-64 years	9	5	3	4	5	10	7	8	17	18	6	13	8	13	6	6	3	2	1	1	0	0	145		
	65+ years	33	13	17	11	20	23	29	26	59	34	32	28	30	32	33	22	4	4	1	2	0	0	453		
New Castle County	0-4 years	2	2	1	1	0	0	6	5	4	0	0	0	0	3	0	1	0	2	1	0	0	0	28	462	59.5%
	5-24 years	1	1	2	3	3	5	11	8	5	2	0	3	1	2	3	0	1	1	1	0	0	0	53		
	25-49 years	6	1	2	3	2	4	5	2	4	0	0	5	4	4	4	1	0	0	0	1	1	0	49		
	50-64 years	3	4	2	3	4	9	6	3	11	9	4	7	5	10	4	4	2	2	1	0	0	0	93		
	65+ years	21	6	10	8	16	13	12	13	31	15	11	17	16	19	14	9	2	4	0	2	0	0	239		
Kent County	0-4 years	0	0	1	1	1	0	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	8	189	24.3%
	5-24 years	1	0	0	0	0	1	0	2	1	3	0	0	0	2	0	0	0	0	0	0	0	0	10		
	25-49 years	1	0	0	1	1	1	2	2	1	2	1	1	2	2	0	0	0	0	0	0	0	0	17		
	50-64 years	4	1	1	1	1	1	0	2	1	4	2	3	3	1	1	2	0	0	0	0	0	0	28		
	65+ years	8	4	4	3	1	6	13	10	18	9	12	8	8	10	8	4	0	0	0	0	0	0	126		
Sussex County	0-4 years	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	126	16.2%
	5-24 years	1	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5		
	25-49 years	1	1	0	0	0	1	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	7		
	50-64 years	2	0	0	0	0	0	1	3	5	5	0	3	0	2	1	0	1	0	0	1	0	0	24		
	65+ years	4	3	3	0	3	4	4	3	10	10	9	3	6	3	11	9	2	0	1	0	0	0	88		

Table 3. Influenza-related deaths by MMWR Week, Delaware 2016-17

Influenza-Related Deaths	Wk 40-52	Wk 01	Wk 02	Wk 03	Wk 04	Wk 05	Wk 06	Wk 07	Wk 08	Wk 09	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	Wk 19	Wk 20	YTD	
	1	0	1	0	1	0	1	2	0	2	2	1	0	3	1	0	0	0	0	0	0	0	15

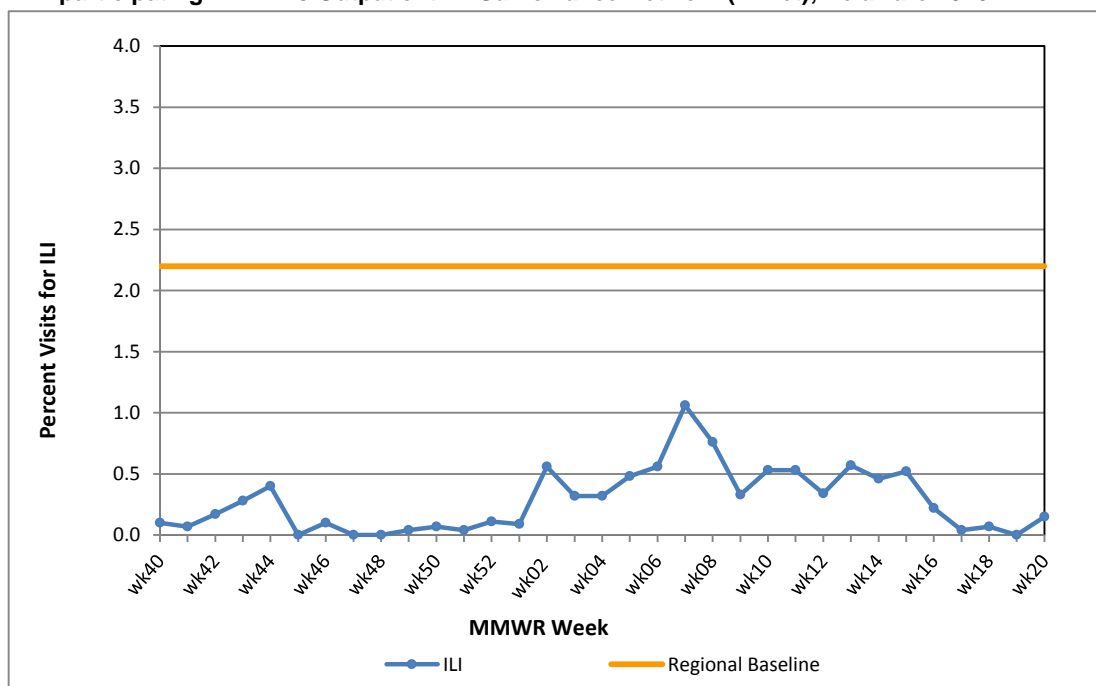
Table 4. Numbers of influenza cases reported by flu season, Delaware 2004-05 through 2016-17

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	2,251
2016 – 2017 (YTD)	4,554

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 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.

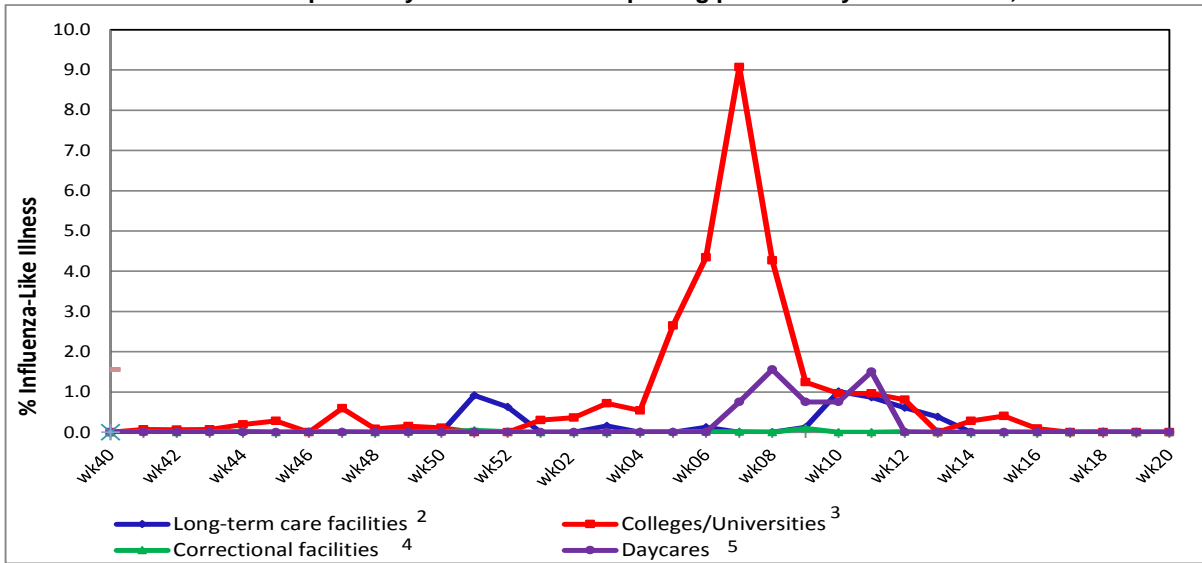
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in CDC’s Outpatient ILI Surveillance Network (ILINet), Delaware 2016-17



¹ Twelve of 18 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 ILI surveillance reporting partners¹ by MMWR Week, Delaware 2016-17



- 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 2016-17

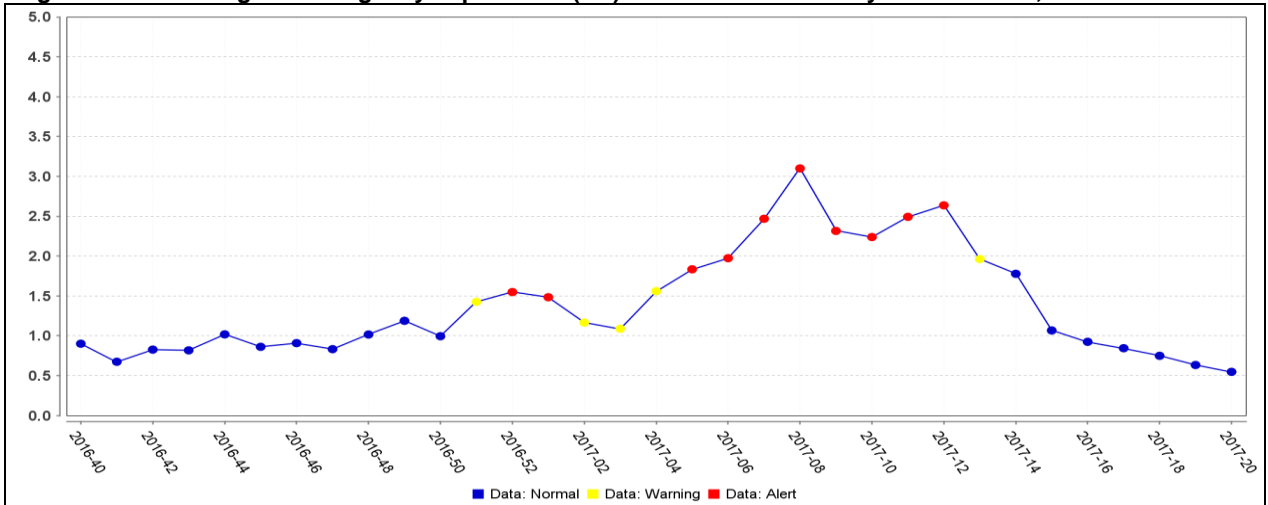
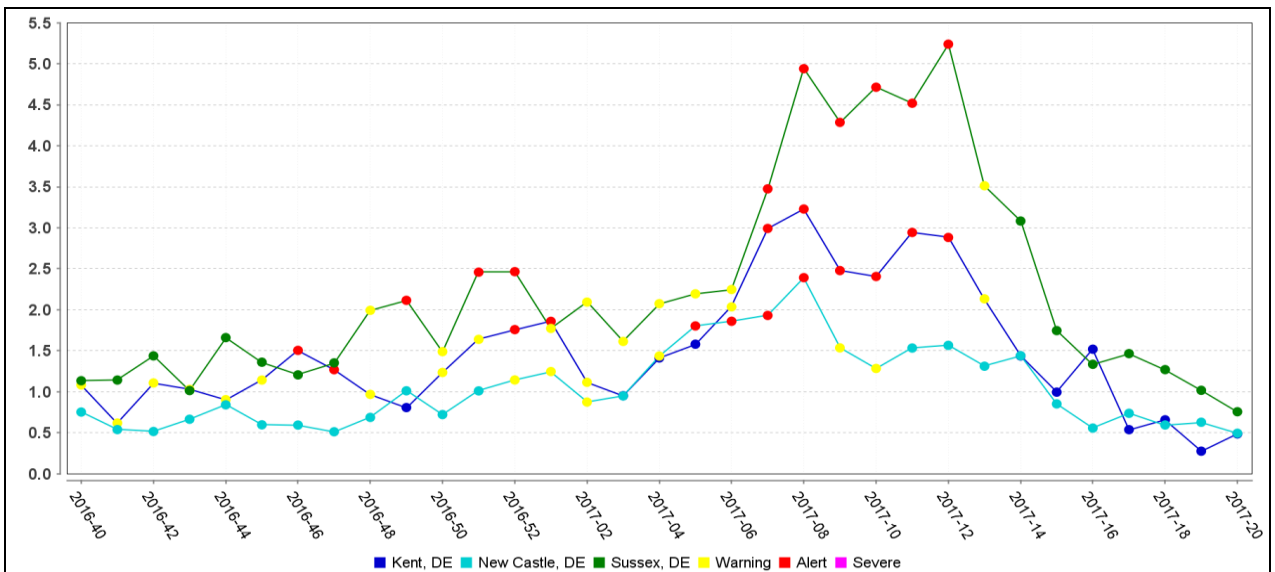


Figure 4b. County-specific percentages of ED visits due to ILI/Flu by MMWR Week, Delaware 2016-17



Summary of International Influenza Activity

Influenza activity in the temperate zone of the northern hemisphere continued to decrease. In the temperate zone of the southern hemisphere, influenza activity reached seasonal thresholds in some countries, but remained low in general. Worldwide, influenza B viruses were predominant.

In North America, overall influenza activity continued to decrease. Increased proportions of influenza B viruses were reported in the United States and in Canada in recent weeks. In Mexico, low levels of all seasonal influenza types/subtypes continued to be detected.

In the Caribbean and Central America countries, respiratory virus activity remained low. In tropical South America, influenza activity remained low in most of the region, except in Bolivia where influenza activity increased in recent weeks with influenza A(H3N2) viruses predominating. Other respiratory virus activities remained low in general, except in Colombia where elevated activity of respiratory syncytial virus (RSV) continued to be reported.

In Europe, influenza activity continued to decrease to low levels overall. In Northern and Eastern Europe, influenza activity continued to decrease with influenza B viruses predominant. In South West Europe little to no influenza activity was reported.

In Western Asia, low influenza activity was reported with influenza B viruses predominant. In Central Asia, respiratory illness indicators were at low levels in general and very few influenza virus detections were reported during this period. In East Asia, influenza activity continued to be reported with all seasonal influenza types/subtypes detected. In Southern Asia, influenza activity decreased in recent weeks. In Southeast Asia, influenza activity remained low.

In Northern Africa, influenza activity remained low. In East and West Africa, low influenza activity was reported in recent weeks, with all seasonal influenza types/subtypes detected.

In the temperate zone of the Southern Hemisphere, influenza activity slightly increased in recent weeks. In Chile, ILI activity continued to increase and passed the seasonal threshold.

Reference: World Health Organization (WHO), 2017. Influenza update number 289 (5/15/17). Retrieved May 19, 2017 from http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/. Reports are updated biweekly

NOTE: The 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.