



## Delaware Weekly Influenza Report MMWR Week 10 (March 5 - 11, 2017) Delaware Division of Public Health

### 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 10 (March 5 - 11, 2017) influenza activity decreased, but remained elevated in the United States. The most frequently identified influenza virus subtype reported by public health laboratories during week 10 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Widespread influenza activity** was reported by 36 states (Alabama, Alaska, Arkansas, California, Connecticut, Delaware, Florida, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia and Wisconsin). **Regional influenza activity** was reported by Guam, Puerto Rico and 11 states (Arizona, Colorado, Georgia, Idaho, Illinois, Montana, South Dakota, Texas, Washington, West Virginia and Wyoming). **Local influenza activity** was reported by the District of Columbia and three states (Hawaii, Oregon and Utah). **No influenza activity** was reported by the U.S. Virgin Islands. Both national and state data are provisional and subject to change as additional reports are received.

### Delaware Influenza Surveillance 2016-2017:

During MMWR Week 10 there were 391 laboratory-confirmed cases of influenza reported among Delaware residents with a total of 3,035 for the 2016-2017 season. Reports of influenza-like illness (ILI) received from participating providers, facilities and institutions in Delaware show ILI is 0.53% (Delaware's 2016-2017 baseline is 2.2%). Nationally, ILI is 3.7%, above the national baseline of 2.2%.

### Level of Influenza Activity in Delaware, MMWR Week 10:

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

<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 Delaware and other 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) / lineage (B)<sup>3</sup> 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	YTD	YTD Total	YTD County %
STATEWIDE	A / 2009 H1N1	1	1	0	1	0	0	2	1	0	0	0	6	3,035	
	A / 2012 H3N2	89	27	42	42	52	69	101	72	92	36	24	646		
	A / no subtype	103	45	57	71	84	159	250	286	400	252	203	1910		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	1		
	B / Yamagata	1	1	3	5	3	5	4	7	10	8	6	53		
	B / Victoria	0	2	0	0	1	0	3	1	0	3	1	11		
B / no lineage	5	9	3	9	12	14	38	52	86	95	85	408			
New Castle County	A / 2009 H1N1	0	1	0	1	0	0	2	1	0	0	0	5	1,525	50.3%
	A / 2012 H3N2	69	21	34	37	39	52	85	54	72	22	13	498		
	A / no subtype	21	20	23	28	47	93	135	139	157	106	73	842		
	B / Yamagata	1	0	1	3	3	3	4	4	4	3	0	26		
	B / Victoria	0	2	0	0	1	0	3	0	0	0	0	6		
	B / no lineage	3	0	0	6	9	8	22	18	26	31	25	148		
Kent County	A / 2009 H1N1	0	0	0	0	0	0	0	0	0	0	0	0	890	29.3%
	A / 2012 H3N2	11	0	1	2	4	6	4	4	3	2	5	42		
	A / no subtype	56	15	27	23	21	46	79	96	137	99	91	690		
	A,B co-infection	0	0	0	0	0	0	0	0	0	1	0	1		
	B / Yamagata	0	0	1	0	0	0	0	0	2	2	2	7		
	B / Victoria	0	0	0	0	0	0	0	0	0	0	0	0		
B / no lineage	2	8	3	2	1	1	11	18	39	29	36	150			
Sussex County	A / 2009 H1N1	1	0	0	0	0	0	0	0	0	0	0	1	620	20.4%
	A / 2012 H3N2	9	6	7	3	9	11	12	14	17	12	6	106		
	A / no subtype	26	10	7	20	16	20	36	51	106	47	39	378		
	B / Yamagata	0	1	1	2	0	2	0	3	4	3	4	20		
	B / Victoria	0	0	0	0	0	0	0	1	0	3	1	5		
	B / no lineage	0	1	0	1	2	5	5	16	21	35	24	110		

**Table 1b. Influenza positive<sup>1</sup> cases reported<sup>2</sup> 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	YTD	YTD Total	YTD County %
STATEWIDE	0-4 years	27	15	24	24	26	39	68	65	119	74	66	547	3,035	
	5-24 years	41	23	35	42	59	88	202	202	205	138	126	1161		
	25-49 years	52	13	13	25	18	44	56	61	94	60	44	480		
	50-64 years	34	14	12	16	21	27	29	42	67	54	35	351		
	65+ years	45	20	21	21	28	49	43	49	103	69	48	496		
New Castle County	0-4 years	7	9	12	10	20	27	54	41	67	37	29	313	1,525	50.3%
	5-24 years	20	10	19	26	36	61	123	103	89	62	32	581		
	25-49 years	26	8	8	16	10	20	35	30	34	19	16	222		
	50-64 years	15	5	7	10	14	23	19	17	26	18	19	173		
	65+ years	26	12	12	13	19	25	20	25	43	26	15	236		
Kent County	0-4 years	18	6	9	8	4	9	7	14	30	29	23	157	890	29.3%
	5-24 years	17	8	12	6	12	19	53	63	62	42	65	359		
	25-49 years	16	2	3	4	5	11	14	17	33	25	18	148		
	50-64 years	9	3	4	4	3	3	4	10	24	15	10	89		
	65+ years	9	4	4	5	2	11	16	14	32	22	18	137		
Sussex County	0-4 years	2	0	3	6	2	3	7	10	22	8	14	77	620	20.4%
	5-24 years	4	5	4	10	11	8	26	36	54	34	29	221		
	25-49 years	10	3	2	5	3	13	7	14	27	16	10	110		
	50-64 years	10	6	1	2	4	1	6	15	17	21	6	89		
	65+ years	10	4	5	3	7	13	7	10	28	21	15	123		

<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 will be categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases<sup>1</sup> of influenza by type and subtype / lineage, by MMWR Week, Delaware 2016-17\*

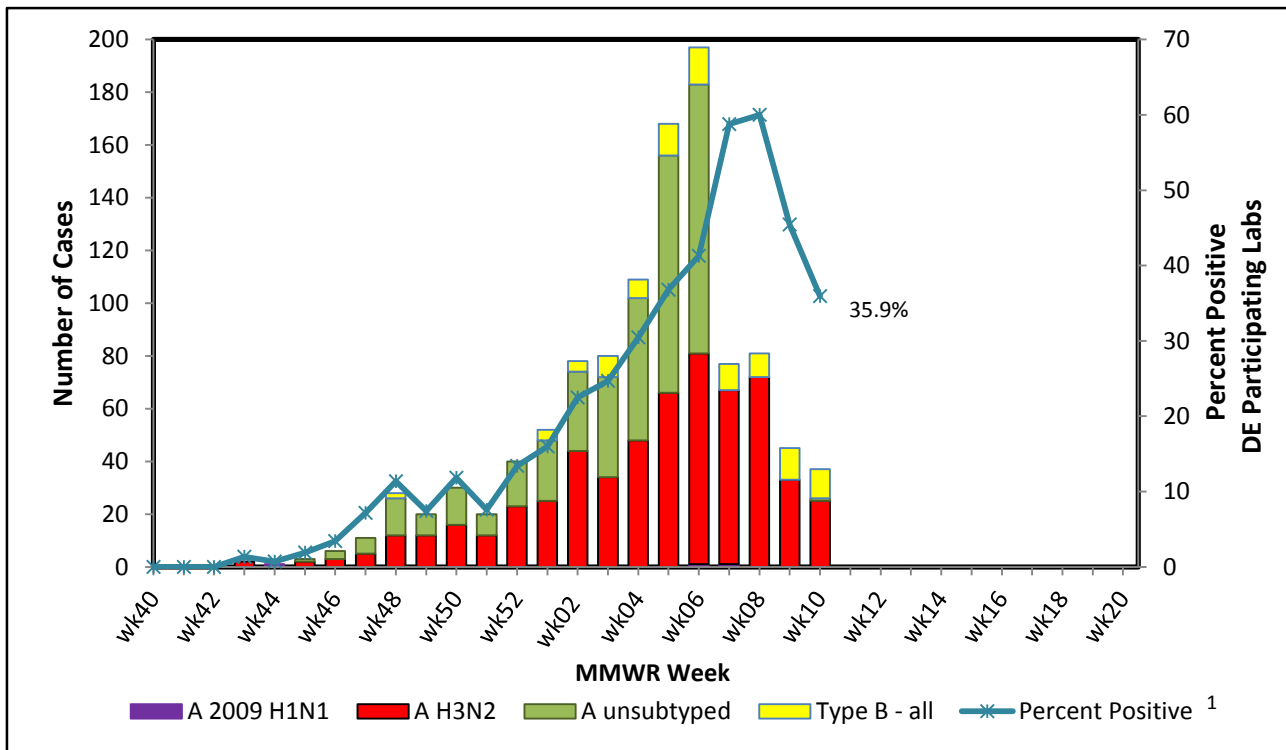


Table 2. Influenza-related hospitalizations statewide and county, by age group and MMWR Week, Delaware 2016-17

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	YTD	YTD Total	YTD County %	
STATEWIDE	0-4 years	2	2	2	1	1	6	6	7	0	1	30	516		
	5-24 years	3	1	2	4	3	6	11	12	7	6	1			56
	25-49 years	8	2	2	4	3	6	7	4	6	4	1			47
	50-64 years	9	5	3	4	5	10	7	8	17	19	6			93
	65+ years	32	13	17	11	20	23	27	25	57	35	30			290
New Castle County	0-4 years	2	2	1	1	0	1	6	5	4	0	0	22	305	59.1%
	5-24 years	1	1	2	3	3	5	11	9	6	2	0	43		
	25-49 years	6	1	2	3	2	4	5	2	4	0	0	29		
	50-64 years	3	4	2	3	4	9	6	3	11	9	4	58		
	65+ years	20	6	10	8	16	13	11	13	31	16	9	153		
Kent County	0-4 years	0	0	1	1	1	0	0	1	3	0	1	8	130	25.2%
	5-24 years	1	0	0	0	0	1	0	2	1	3	0	8		
	25-49 years	1	0	0	1	1	1	2	2	1	2	1	12		
	50-64 years	4	1	1	1	1	1	0	2	1	4	2	18		
	65+ years	8	4	4	3	1	6	12	9	16	9	12	84		
Sussex County	0-4 years	0	0	0	0	0	0	0	0	0	0	0	0	81	15.7%
	5-24 years	1	0	0	1	0	0	0	1	0	1	1	5		
	25-49 years	1	1	0	0	0	1	0	0	1	2	0	6		
	50-64 years	2	0	0	0	0	0	1	3	5	6	0	17		
	65+ years	4	3	3	0	3	4	4	3	10	10	9	53		

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	YTD
	1	0	1	0	1	0	1	2	0	2	0	8

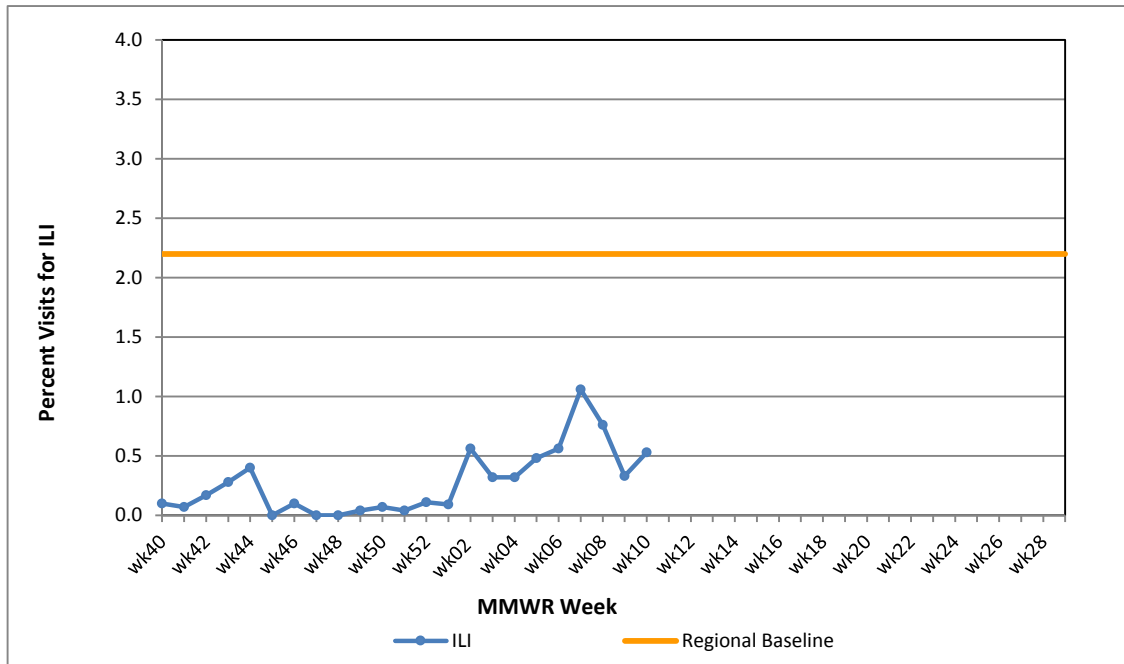
**Table 4. Numbers of influenza cases reported by flu season, Delaware 2004-05 through 2016-17**

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
<b>2016 – 2017 (YTD)</b>	<b>3,035</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 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.

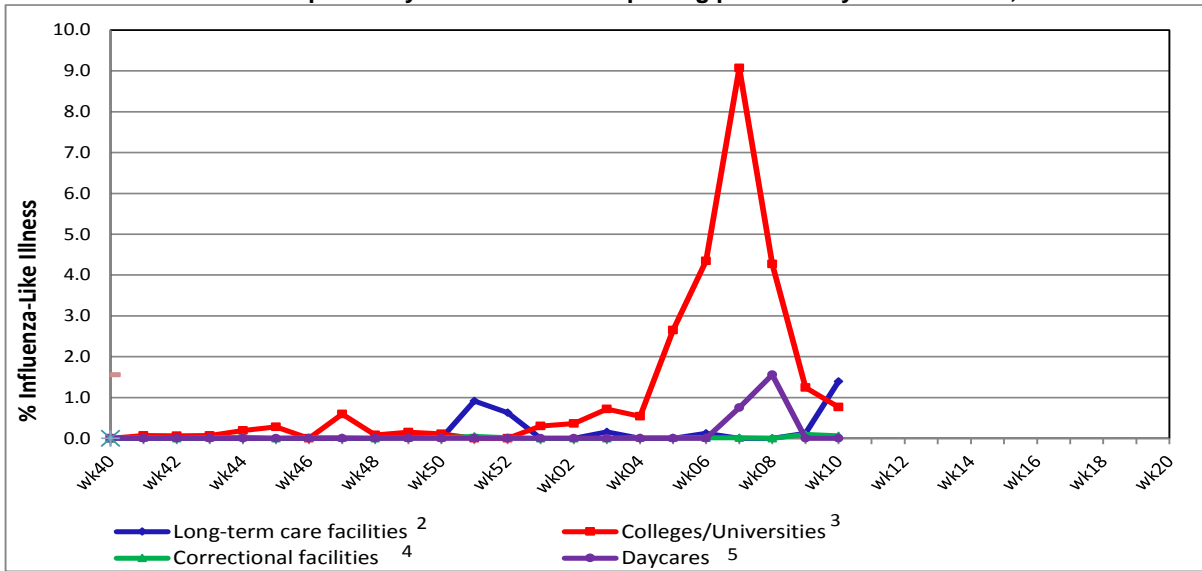
**Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers<sup>1</sup> participating in CDC’s Outpatient ILI Surveillance Network (ILINet), Delaware 2016-17**



<sup>1</sup> Thirteen of 18 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 ILI surveillance reporting partners<sup>1</sup> by MMWR Week, Delaware 2016-17**



<sup>1</sup> ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities.

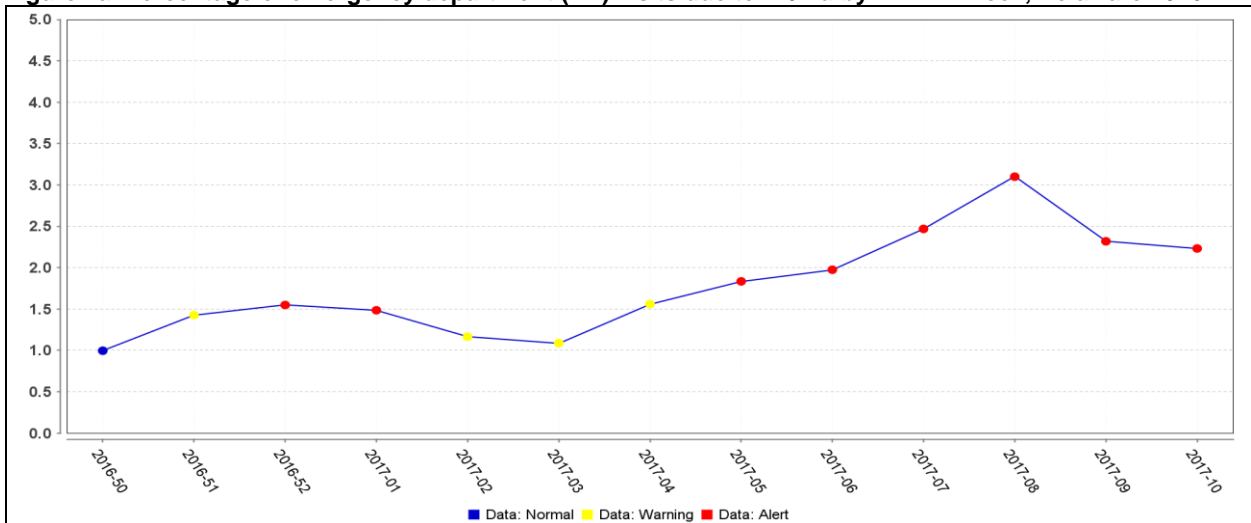
<sup>2</sup> % ILI= percentage of residents with ILI symptoms Five long-term care facilities reported.

<sup>3</sup> % ILI= percentage of student visits for ILI; Two universities reported.

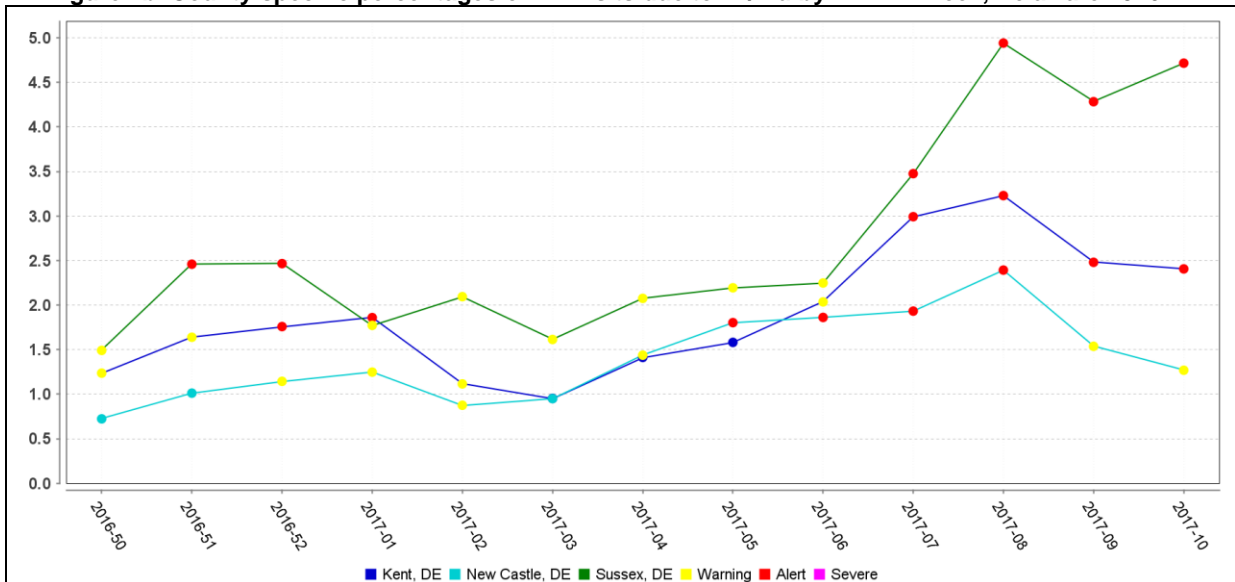
<sup>4</sup> % ILI= percentage of visits for ILI at the correctional facility; Nine correctional facilities reported.

<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 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 be elevated in some countries. Influenza activity in many countries especially in East Asia and Europe appeared to have already peaked. Worldwide, influenza A(H3N2) virus was predominant. The majority of influenza viruses characterized so far were similar antigenically to the reference viruses contained in vaccines for use in the 2016-2017 northern hemisphere influenza season.

In North America, influenza activity continued to increase. Influenza - like illness and the number of influenza detections remain elevated in the United States of America with A(H3N2) and B viruses being detected. Influenza activity plateaued in Canada and increased in Mexico with A(H3N2) virus and A(H1N1)pdm09 virus predominating, respectively.

In the Caribbean countries and Central America, influenza and other respiratory virus activity remained low in general, except in Puerto Rico where influenza activity remained above the seasonal threshold with influenza A(H3N2) predominating. In Jamaica, severe acute respiratory infection activity increased and peaked above the alert threshold.

In tropical South America, influenza and other respiratory virus activity remained low, although RSV activity remained elevated in Colombia.

In Europe, influenza activity remained elevated with influenza A (H3N2) virus being the most prominent subtype. Detections of influenza B virus increased in the recent weeks. Most of the countries reported stable or decreasing trends compared with previous weeks. Persons aged over 65 years were reported most frequently associated with severe disease from influenza infection.

In Western Asia, influenza activity continued to decrease with influenza A(H3N2) and B viruses co-circulating in the region. In East Asia, influenza activity appeared to be decreasing with influenza A(H3N2) virus predominant. In Southern Asia, influenza activity continued to increase in India and Sri Lanka, with mainly influenza A(H1N1)pdm09 virus reported followed by influenza B virus. In South East Asia, influenza activity remained low.

In Northern Africa, influenza activity continued to decrease; influenza A(H3N2) and influenza B virus detections were reported. In West Africa, influenza activity continued to be reported in Côte d'Ivoire, Ghana and Niger, with influenza B being the main virus detected.

In the temperate zone of the Southern Hemisphere, influenza activity was at inter-seasonal levels.

**Reference:** World Health Organization (WHO), 2017. Influenza update number 284 (3/6/17). Retrieved March 13, 2017 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:** 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](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.