



Delaware Weekly Influenza Report

MMWR Week 52 (December 22, 2019- December 28, 2019)

Delaware Division of Public Health

National Influenza Synopsis 2019-2020:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. Geographic spread of influenza during MMWR Week 52 (December 22- December 28, 2019) was reported as follows:

- *Sporadic Influenza Activity* was reported in the U.S. Virgin Islands
- *Local Influenza Activity* was reported in the District of Columbia and one state (Hawaii)
- *Regional Influenza Activity* was reported in four states (Kansas, Maine, North Dakota, and Vermont)
- *Widespread Influenza Activity* was reported in Puerto Rico and 45 states (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin and Wyoming)
- Guam did not report.

Summary of International Influenza Activity:

- In the temperate zone of the northern hemisphere, respiratory illness indicators and influenza activity continued to increase in most countries.
- In the Caribbean and Central American countries, influenza activity was low overall, except for Cuba where increased detections of influenza B/Victoria lineage viruses were reported. In tropical South American countries, influenza activity remained low.
- In tropical Africa, influenza activity remained elevated in some countries of Middle and Western Africa.
- In Southern Asia, influenza activity was low across reporting countries, but was reported at high levels in the Islamic Republic of Iran in recent weeks.
- In South East Asia, influenza activity continued to be reported in Lao People's Democratic Republic and the Philippines.
- In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels.
- Worldwide, seasonal influenza A(H3N2) viruses accounted for the majority of detections.

Reference: World Health Organization (WHO), 2017. Influenza Update number 357 (12/20/2019). Retrieved December 20, 2019, from http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

Reports are updated biweekly.

Delaware Influenza Surveillance 2019-2020:

During MMWR Week 52, there were 470 laboratory-confirmed cases of influenza reported among Delaware Residents. Reports of influenza-like-illness (ILI) received from participating providers, facilities, and institutions in Delaware show ILI is 4.17% compared to Delaware's 2019-2020 baseline of 1.9%. Nationally, 6.9% of visits to a healthcare provider were for ILI, which is an increase from last week and is now above the 2019-2020 national baseline of 2.4%. All regions were at or above their baselines

Level of Influenza Activity in Delaware, MMWR Week 52:

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.	
CDC Definitions:	
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 = 1.9%.

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 does not apply to states with ≤ four counties.

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Table 1A: Comparison of the 2018-2019 MMWR Week 52 and the 2019-2020 MMWR Week 52 Confirmed¹ Influenza Cases Reported Statewide by County and Age Group

Confirmed Flu Cases by Age Group		2018-2019 Influenza Season					2019-2020 Influenza Season				
		Week 52	Total Counts	County Percentage (%)	YTD ²	YTD County Percentage (%)	Week 52	Total Counts	County Percentage (%)	YTD ²	YTD County Percentage (%)
STATEWIDE	0-4	61	224	--	681	--	131	470	--	1083	--
	5-24	48					184				
	25-49	55					99				
	50-64	30					33				
	65+	30					23				
New Castle County	0-4	27	84	37.5	267	39.2	69	190	40.4	494	45.6
	5-24	20					68				
	25-49	21					32				
	50-64	6					13				
	65+	10					8				
Kent County	0-4	8	57	25.4	248	36.4	31	139	29.6	320	29.5
	5-24	10					64				
	25-49	14					35				
	50-64	13					3				
	65+	12					6				
Sussex County	0-4	26	83	37	174	25.5	31	141	30	269	24.8
	5-24	18					52				
	25-49	20					32				
	50-64	11					17				
	65+	8					9				

¹Influenza Cases are confirmed via PCR testing

²YTD stands for “Year to Date” and represents the cumulative number of cases through the current MMWR Week being assessed for the 2018-19 and 2019-20 influenza seasons, respectively.

Table 1B: Comparison of the 2018-2019 MMWR Week 52 and the 2019-2020 MMWR Week 52 Confirmed¹ Influenza Cases Reported Statewide by County and subtype/lineage

Confirmed Flu Cases by Subtype / Lineage		2018-2019 Influenza Season		2019-2020 Influenza Season	
		Week 52	Total Counts	Week 52	Total Counts
STATEWIDE	A / 2009 H1N1	36	224	19	470
	A / 2012 H3N2	5		2	
	A / no subtype	185		143	
	Co-infection	0		1	
	B / Yamagata	0		0	
	B / Victoria	0		34	
	B / no lineage	0		271	
New Castle County	A / 2009 H1N1	24	84	14	190
	A / 2012 H3N2	5		1	
	A / no subtype	54		39	
	Co-infection	0		0	
	B / Yamagata	0		0	
	B / Victoria	0		27	
	B / no lineage	0		109	
Kent County	A / 2009 H1N1	6	57	2	139
	A / 2012 H3N2	0		0	
	A / no subtype	51		33	
	Co-infection ²	0		1	
	B / Yamagata	0		0	
	B / Victoria	0		4	
	B / no lineage	0		99	
Sussex County	A / 2009 H1N1	6	83	3	141
	A / 2012 H3N2	0		1	
	A / no subtype	77		71	
	Co-infection	0		0	
	B / Yamagata	0		0	
	B / Victoria	0		3	
	B / no lineage	0		63	

¹Influenza Cases are confirmed via PCR testing

Confirmed Cases of Influenza by Type and Subtype/Lineage, Delaware 2019-2020 Influenza Season

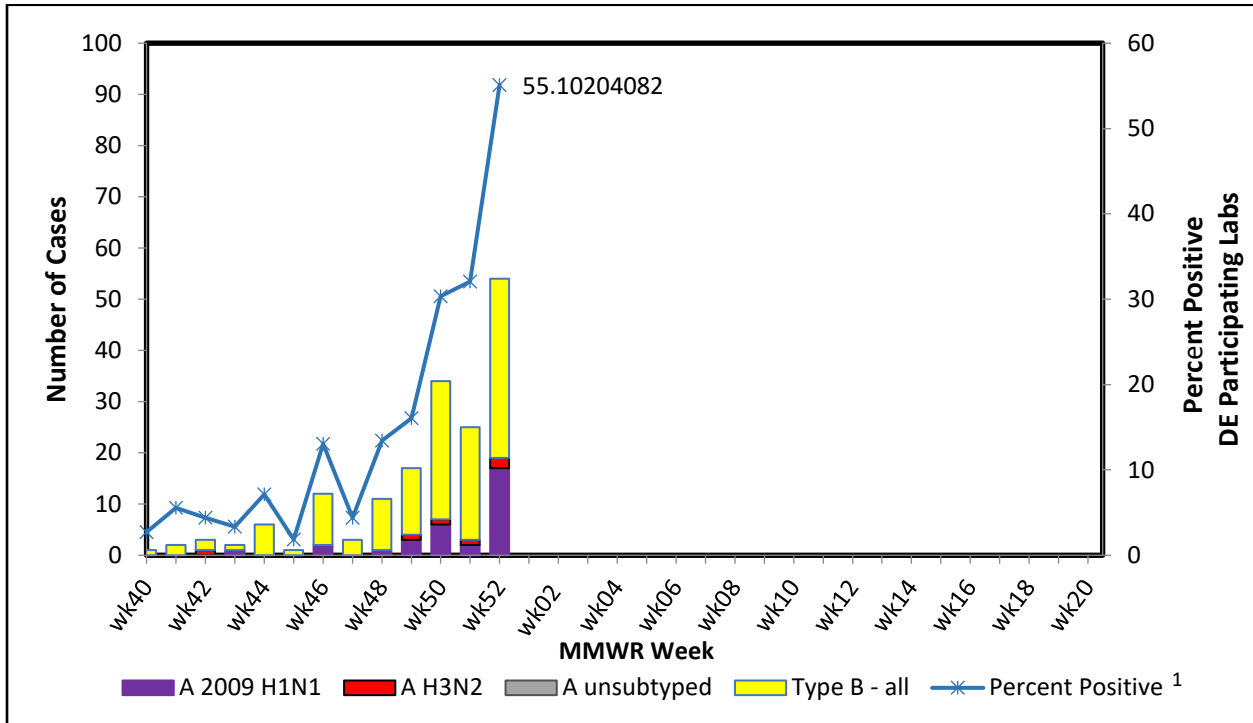


Figure 1: During MMWR Week 52 for the 2019-2020 Influenza season, there were 54 confirmed cases of Influenza reported by ILINet providers. Thirty-four were identified as subtype B/Victoria, one was identified as Flu B, seventeen were identified as Flu A/ H1N1, and two was identified as Flu A/ H3N2. The percent positive for samples tested was 55.1 %.

¹Percent Positive represents the amount of specimens that tested positive for influenza out of all samples tested for that MMWR week.

Table 2: Comparison of the 2018-2019 MMWR Week 52 and the 2019-2020 MMWR Week 52
Influenza-related Hospitalizations and Deaths Statewide

Hospitalizations and Deaths due to Influenza	2018-2019 Influenza Season				2019-2020 Influenza Season			
	Week 52	YTD Totals ¹	Percentage of Confirmed Cases (%) ²	YTD Percentage of Confirmed Cases (%) ³	Week 52	YTD Totals ¹	Percentage of Confirmed Case (%) ²	YTD Percentage of Confirmed Cases (%) ³
Hospitalizations	40	140	17.8	20.5	31	65	6.5	6
Deaths	0	0	0	0	0	0	0	0

¹YTD stands for “Year to Date” and represents the cumulative number of cases through the current MMWR Week that were hospitalized or died

²Percentage of cases confirmed during the single MMWR Week

³Percentage of cases for the cumulative count of confirmed cases through the influenza season to the current MMWR Week.

Table 3: Annual Number of Influenza Cases Reported by Flu Season, Delaware 2004-05 through 2019-20

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	9,050
2018 – 2019	6,387
2019 – 2020 (YTD)	1083

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.

Percentage of Visits for Influenza-Like Illness Reported by Sentinel Providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2019-2020

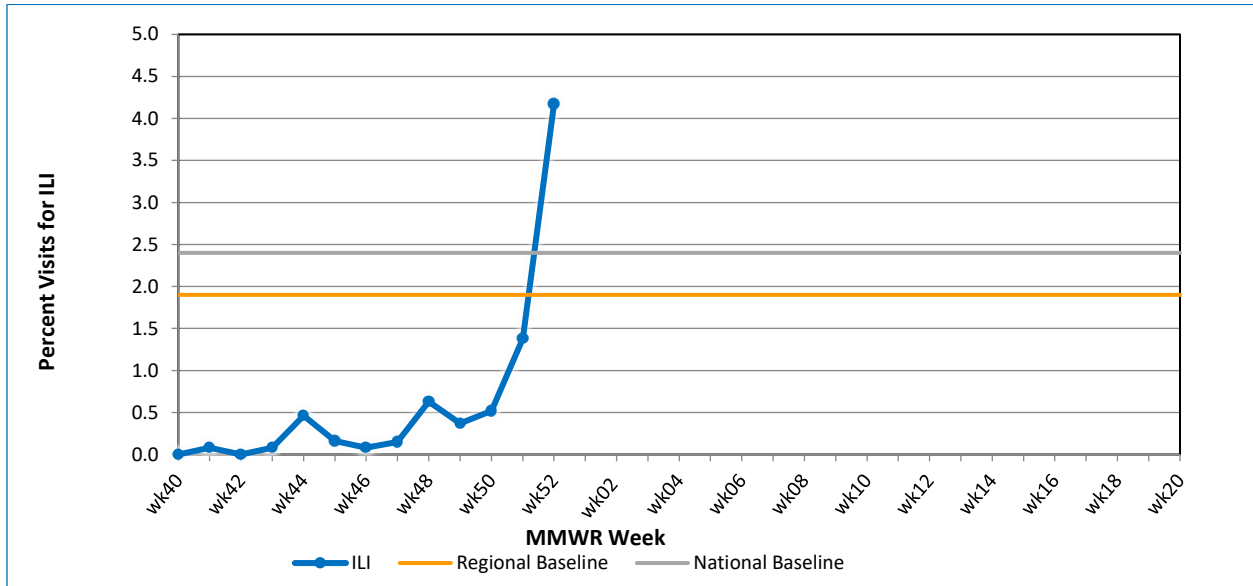


Figure 2: Delaware's regional baseline² for healthcare visits relating to ILI symptoms in the 2019-2020 Influenza Season is 1.9% and the national baseline³ is 2.4%. In MMWR Week 52, the amount of ILI related visits reported by sentinel providers increased from 1.38% to 4.17%.

¹six of twelve sentinel providers reported

²The regional baseline is calculated by the CDC using non-influenza weeks from the previous three influenza seasons. Delaware is in Region 3, which also includes DC, MD, PA, VA, and WV.

³The National baseline is calculated by the CDC using non-influenza weeks from the previous three influenza seasons.

Percentage of Emergency Care Visits Due to ILI/Influenza by MMWR Week, Delaware 2019-2020

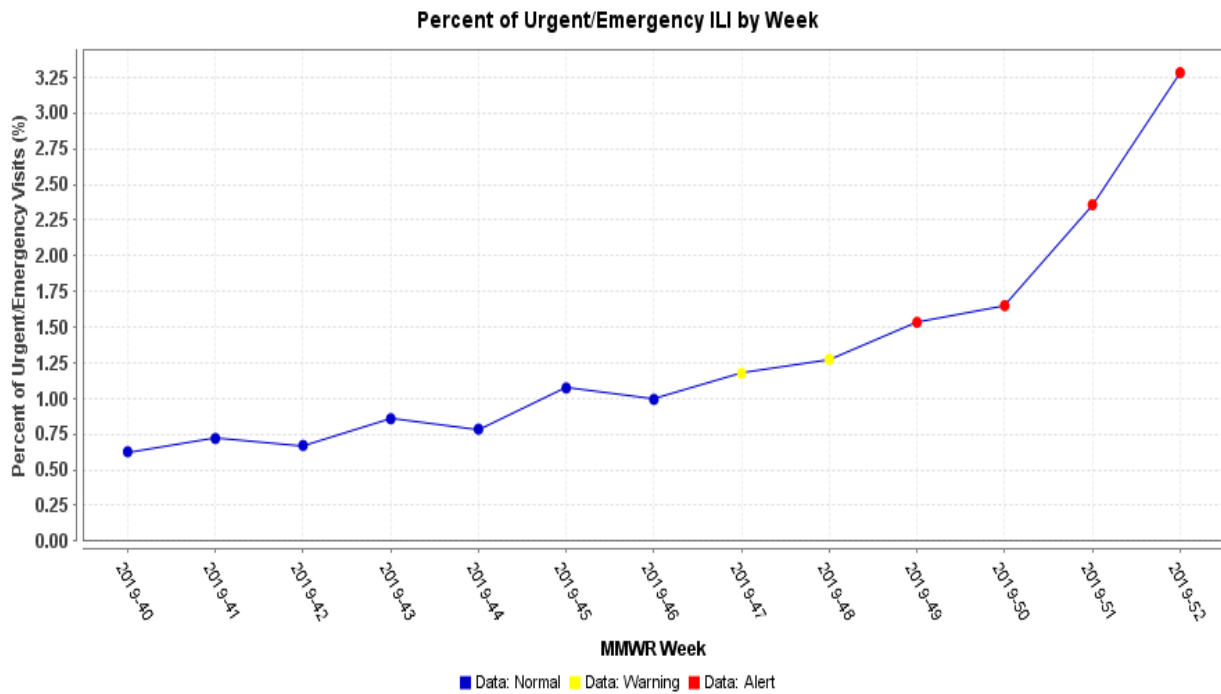


Figure 3A: Syndromic data collected from ESSENCE shows that in the weeks preceding the start of the 2019-2020 Influenza season and through MMWR Week 52, there is an increasing trend in the percentage of ED visits due to ILI/Flu symptoms.

County-Specific Percentage of ED visits Due to ILI/Influenza by MMRW Week, Delaware
2019-2020

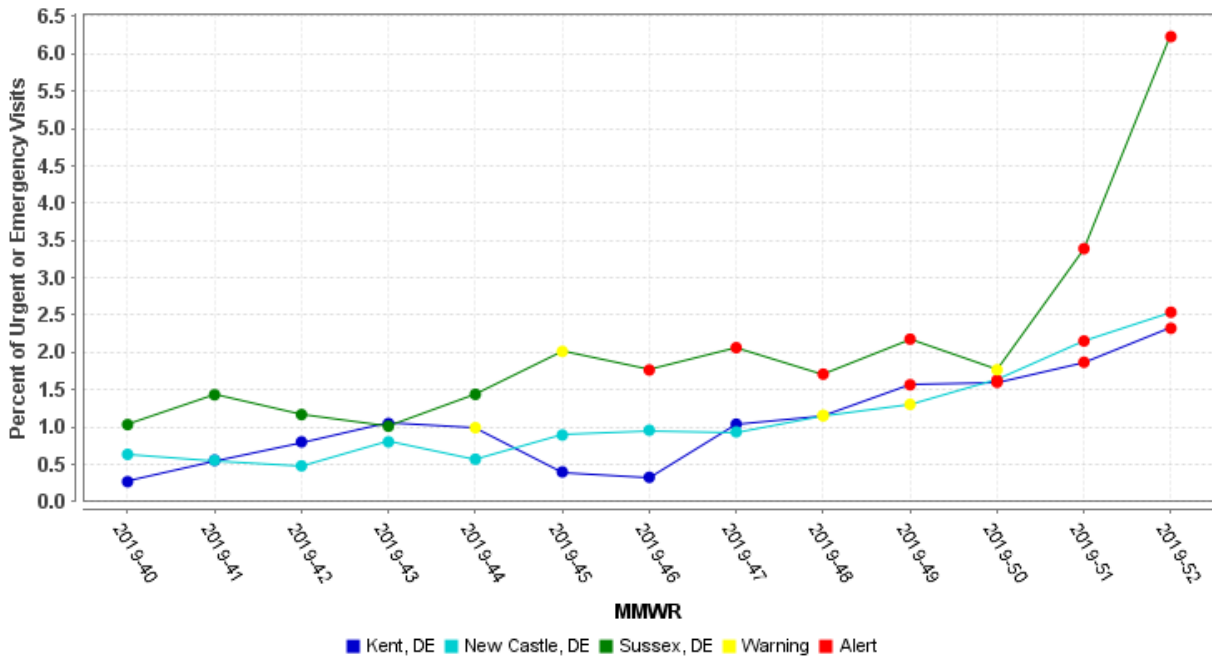


Figure 3B: Syndromic data collected from ESSENCE shows that in the weeks preceding the start of the 2019-2020 Influenza season and through MMRW Week 52 stratified by Delaware’s three counties.

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 at 302-744-4990.
- For questions regarding influenza vaccination, please call 302-744-1060.