



Delaware Weekly Influenza Report

MMWR Week 1 (December 29, 2019- January 4, 2020)

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 1 (December 29, 2019- January 4, 2020) 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 three states (Mississippi, North Dakota, and Vermont)
- *Widespread Influenza Activity* was reported Puerto Rico and 46 states (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, 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 North America, influenza activity further increased and although all seasonal influenza subtypes were co-circulating there was a high proportion of influenza B viruses.
 - In Europe, influenza activity continued to increase across the region and was reported at moderate levels in some countries of Northern Europe.
 - In Central Asia, influenza activity increased with influenza A and B viruses co-circulating.
 - In Northern Africa, influenza activity was low overall.
 - In Western Asia, influenza activity remained elevated overall and continued to increase in Iraq, Israel, Jordan, Turkey and Yemen.
 - In East Asia, ILI and influenza activity continued to increase overall.
- 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, increased influenza activity was reported from Ecuador and Colombia in recent weeks.
- In tropical Africa, influenza activity was elevated in some countries of Eastern and Middle Africa.
- In Southern Asia, influenza activity was low in most reporting countries, but remained elevated in the Islamic Republic of Iran, though decreased.
- In South East Asia, influenza activity was reported in the Lao People's Democratic Republic and Malaysia.
- 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 1, there were 471 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 1.5% compared to Delaware's 2019-2020 baseline of 1.9%. Nationally, 5.8% of visits to a healthcare provider were for ILI, which is a decrease from last week, and is still above the 2019-2020 national baseline of 2.4%. All regions remain above their baselines .

Level of Influenza Activity in Delaware, MMWR Week 1:

| | |
|---|---|
| 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.

Summary of Figures for the MMWR Week 1 Report:

Table 1: Influenza Season 2019-2020 – Vaccination Status

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

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

Figure 1: Confirmed Cases of Influenza by Type and Subtype/Lineage, Delaware 2019-2020 Influenza Season

Table 2: Comparison of the 2018-2019 MMWR Week 1 and the 2019-2020 MMWR Week 1 Influenza-related Hospitalizations and Deaths

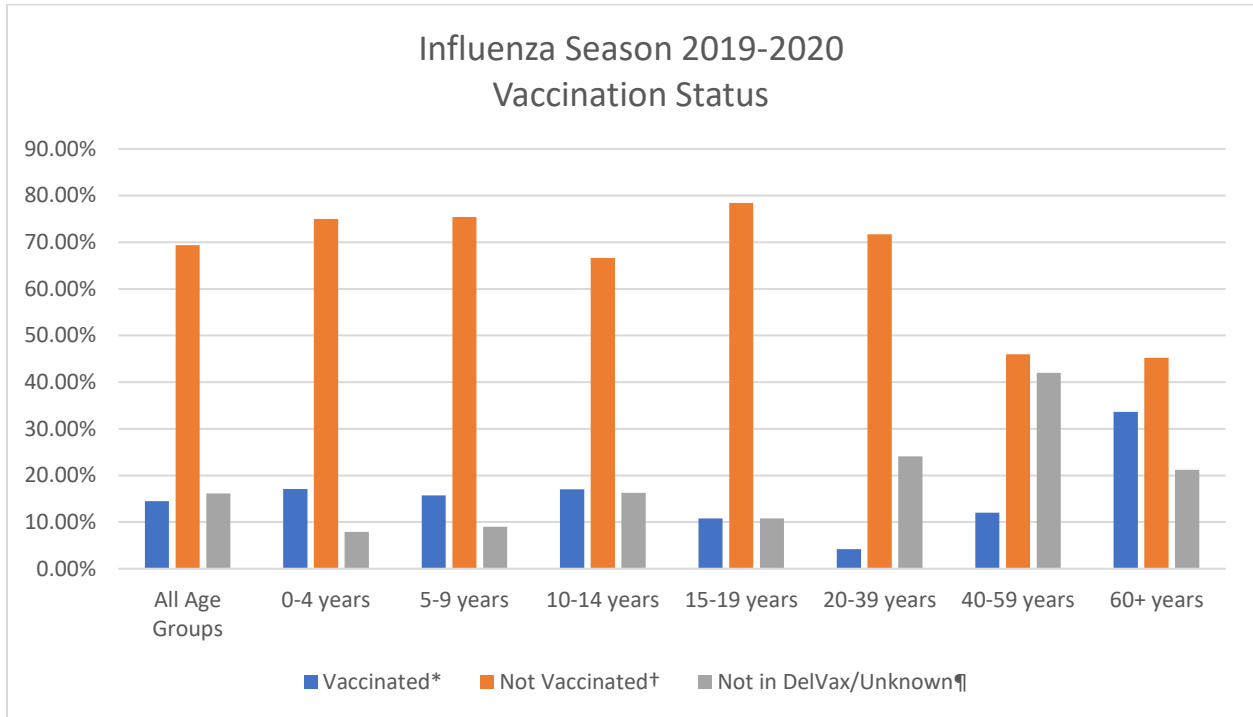
Table 3: Annual Number of Influenza Cases Reported by Flu Season, Delaware 2004-05 through 2019-20

Figure 2: Percentage of Visits for Influenza-Line Illness Reported by Sentinel Providers participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2019-2020

Figure 3A: Percentage of Emergency Department (ED) Visits Due to ILI/Influenza by MMWR Week, Delaware 2019-2020

Figure 3B: County-Specific Percentage of ED visits Due to ILI/Influenza by MMRW Week, Delaware 2019-2020

Table 1: Influenza Season 2019-2020 – Vaccination Status



| |
|---|
| *Received influenza vaccination this season per DelVax |
| †Not vaccinated for influenza this season per DelVax |
| ¶No record in the Delaware Immunization Registry (DelVax) |

Table 1A: Comparison of the 2018-2019 MMWR Week 1 and the 2019-2020 MMWR Week 1 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 1 | Total Counts | County Percentage (%) | YTD ² | YTD County Percentage (%) | Week 1 | Total Counts | County Percentage (%) | YTD ² | YTD County Percentage (%) |
| STATEWIDE | 0-4 | 58 | 206 | -- | 887 | -- | 147 | 471 | -- | 1554 | -- |
| | 5-9 | 22 | | | | | 45 | | | | |
| | 10-14 | 1 | | | | | 11 | | | | |
| | 15-19 | 1 | | | | | 16 | | | | |
| | 20-29 | 16 | | | | | 75 | | | | |
| | 30-39 | 21 | | | | | 46 | | | | |
| | 40-59 | 38 | | | | | 56 | | | | |
| | 60+ | 49 | | | | | 75 | | | | |
| New Castle County | 0-4 | 17 | 67 | 32.5 | 267 | 30.10 | 79 | 212 | 45.01 | 706 | 45.4 |
| | 5-9 | 9 | | | | | 19 | | | | |
| | 10-14 | 1 | | | | | 4 | | | | |
| | 15-19 | 0 | | | | | 7 | | | | |
| | 20-29 | 7 | | | | | 28 | | | | |
| | 30-39 | 5 | | | | | 20 | | | | |
| | 40-59 | 11 | | | | | 26 | | | | |
| | 60+ | 17 | | | | | 29 | | | | |
| Kent County | 0-4 | 18 | 54 | 26.21 | 302 | 34.04 | 35 | 114 | 24.2 | 434 | 27.92 |
| | 5-9 | 4 | | | | | 9 | | | | |
| | 10-14 | 0 | | | | | 5 | | | | |
| | 15-19 | 1 | | | | | 3 | | | | |
| | 20-29 | 6 | | | | | 27 | | | | |
| | 30-39 | 3 | | | | | 11 | | | | |
| | 40-59 | 7 | | | | | 10 | | | | |
| | 60+ | 15 | | | | | 14 | | | | |
| Sussex County | 0-4 | 23 | 85 | 41.2 | 259 | 29.19 | 33 | 145 | 30.7 | 414 | 26.64 |
| | 5-9 | 9 | | | | | 17 | | | | |
| | 10-14 | 0 | | | | | 2 | | | | |
| | 15-19 | 0 | | | | | 6 | | | | |
| | 20-29 | 3 | | | | | 20 | | | | |
| | 30-39 | 13 | | | | | 15 | | | | |
| | 40-59 | 20 | | | | | 20 | | | | |
| | 60+ | 17 | | | | | 32 | | | | |

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 1 and the 2019-2020 MMWR Week 1 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 1 | Total Counts | Week 1 | Total Counts |
| STATEWIDE | A / 2009 H1N1 | 36 | 206 | 39 | 471 |
| | A / 2012 H3N2 | 5 | | 1 | |
| | A / no subtype | 185 | | 168 | |
| | Co-infection | 0 | | 1 | |
| | B / Yamagata | 0 | | 1 | |
| | B / Victoria | 0 | | 23 | |
| | B / no lineage | 0 | | 238 | |
| New Castle County | A / 2009 H1N1 | 29 | 67 | 33 | 212 |
| | A / 2012 H3N2 | 3 | | 1 | |
| | A / no subtype | 34 | | 57 | |
| | Co-infection | 0 | | 0 | |
| | B / Yamagata | 0 | | 1 | |
| | B / Victoria | 0 | | 19 | |
| | B / no lineage | 1 | | 101 | |
| Kent County | A / 2009 H1N1 | 6 | 54 | 1 | 114 |
| | A / 2012 H3N2 | 1 | | 0 | |
| | A / no subtype | 47 | | 35 | |
| | Co-infection ² | 0 | | 0 | |
| | B / Yamagata | 0 | | 0 | |
| | B / Victoria | 0 | | 2 | |
| | B / no lineage | 0 | | 76 | |
| Sussex County | A / 2009 H1N1 | 8 | 85 | 5 | 145 |
| | A / 2012 H3N2 | 0 | | 0 | |
| | A / no subtype | 74 | | 76 | |
| | Co-infection | 0 | | 1 | |
| | B / Yamagata | 0 | | 0 | |
| | B / Victoria | 0 | | 2 | |
| | B / no lineage | 3 | | 61 | |

¹Influenza Cases are confirmed via PCR testing

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

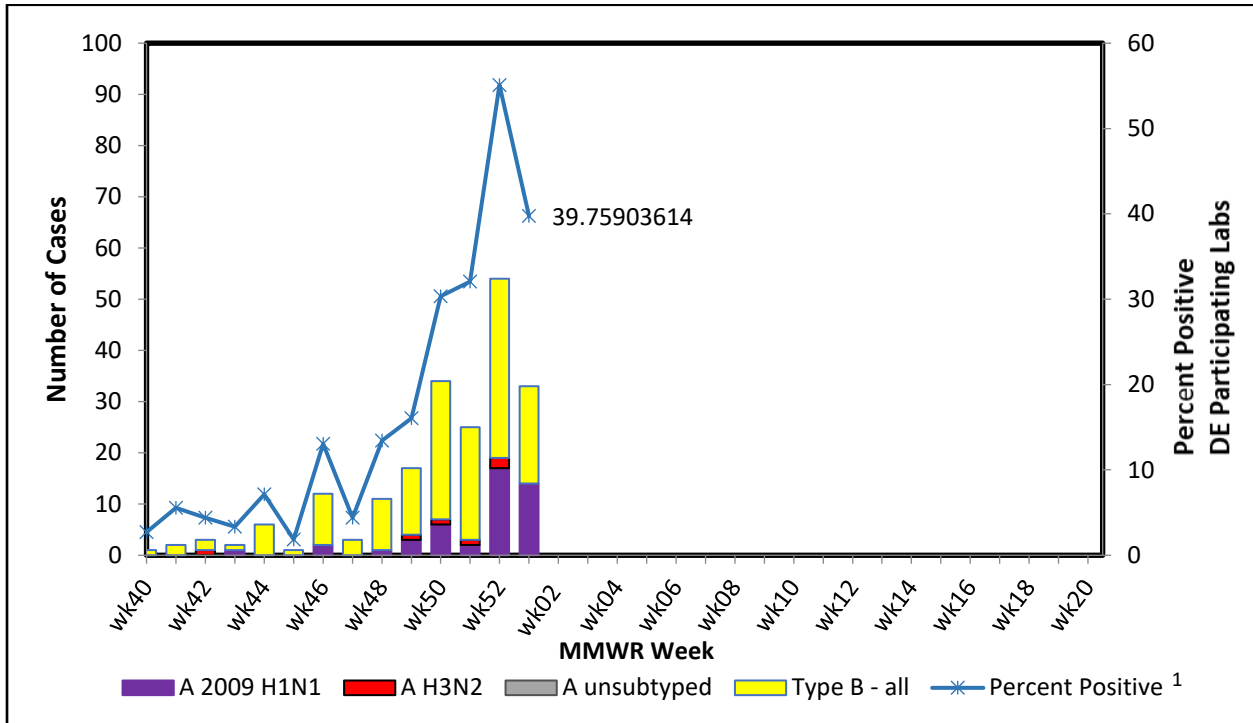


Figure 1: During MMWR Week 1 for the 2019-2020 Influenza season, there were 33 confirmed cases of Influenza reported by ILINet providers. Nineteen were identified as subtype B/Victoria, and fourteen were identified as Flu A/ H1N1. The percent positive for samples tested was 39.7 %.

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 1 and the 2019-2020 MMWR Week 1 Influenza-related Hospitalizations and Deaths Statewide

| Hospitalizations and Deaths due to Influenza | 2018-2019 Influenza Season | | | | 2019-2020 Influenza Season | | | |
|--|----------------------------|-------------------------|--|--|----------------------------|-------------------------|---|--|
| | Week 1 | YTD Totals ¹ | Percentage of Confirmed Cases (%) ² | YTD Percentage of Confirmed Cases (%) ³ | Week 1 | YTD Totals ¹ | Percentage of Confirmed Case (%) ² | YTD Percentage of Confirmed Cases (%) ³ |
| Hospitalizations | 36 | 176 | 17.4 | 19.8 | 30 | 95 | 6.3 | 6.1 |
| Deaths | 1 | 1 | 0.48 | 0.11 | 2 | 2 | 0.42 | 0.12 |

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) | 1,554 |

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

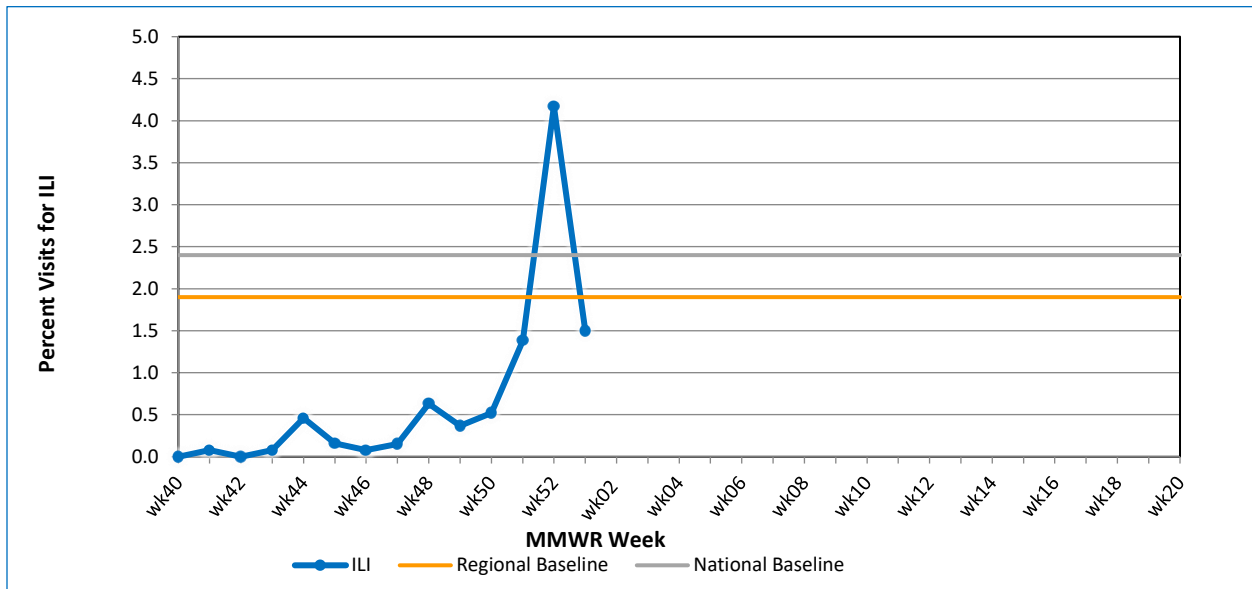


Figure 2: Delaware’s regional baseline² for healthcare visits relating to ILI symptoms in the 2019-2020 Influenza Season is 1.9% and the national baseline³ is 2.4%. In MMWR Week 1, the amount of ILI related visits reported by sentinel providers decreased from 4.17% to 1.5%.

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

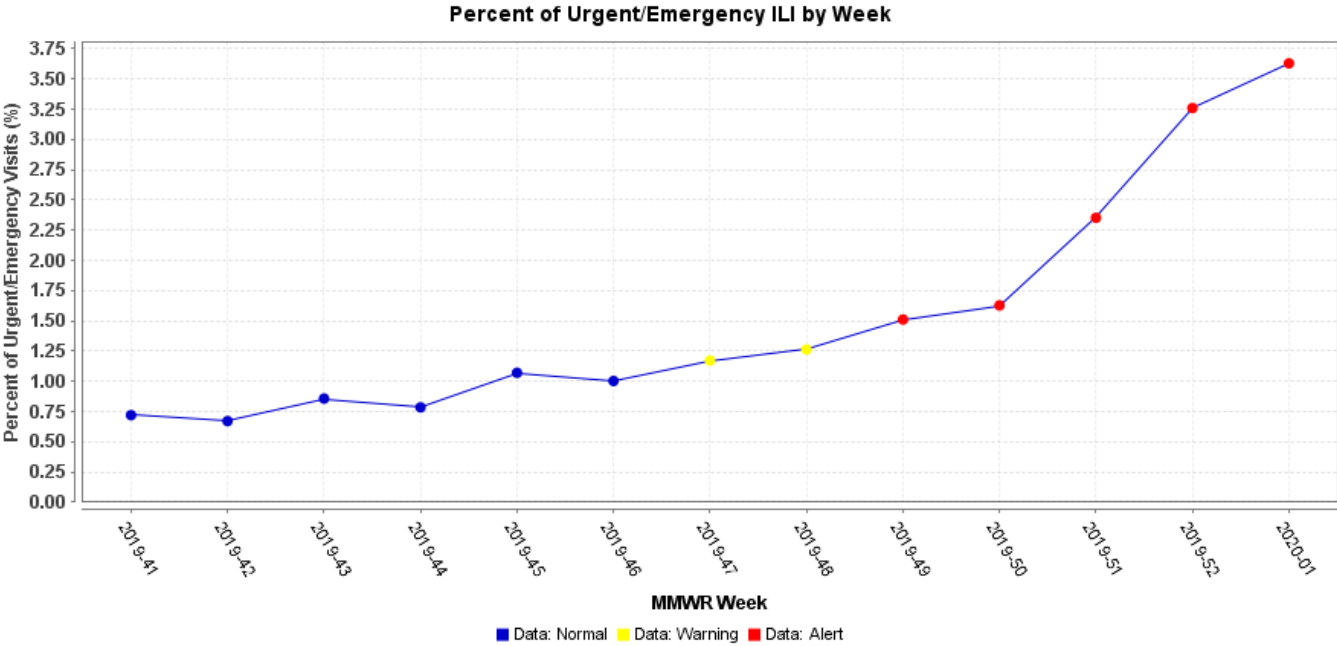


Figure 3A: Syndromic data collected from ESSENCE shows that in the weeks preceding the start of the 2019-2020 Influenza season and through MMWR Week 1, there is an increasing trend in the percentage of ED visits due to ILI/Flu symptoms.

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

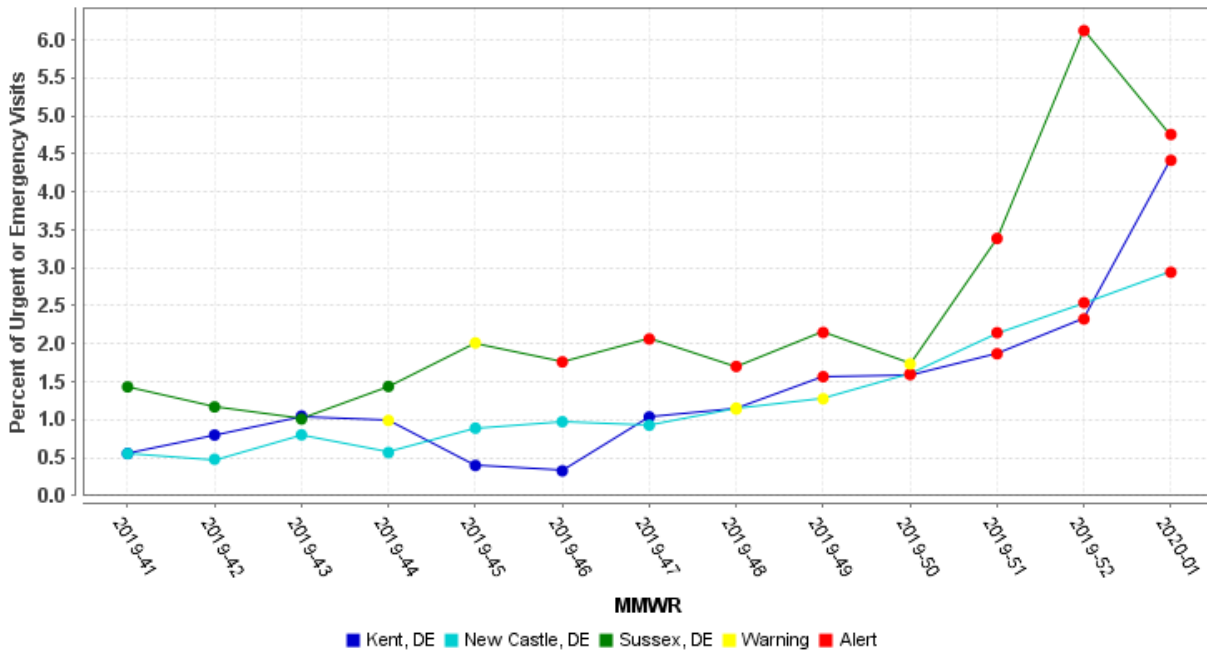


Figure 3B: Syndromic data collected from ESSENCE shows that in the weeks preceding the start of the 2019-2020 Influenza season and through MMWR Week 1 stratified by Delaware’s three counties.

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.