



Delaware Weekly Influenza Report

MMWR Week 11 (March 13-19, 2016)

Delaware Division of Public Health

National Influenza Synopsis 2015-2016:

National data are updated Friday of each week. Please visit <http://www.cdc.gov/flu/weekly/> for the most current information. During MMWR Week 11 (March 13 - 19, 2016), influenza activity decreased slightly, but remained elevated in the United States. The most frequently identified influenza virus type reported by public health laboratories during week 11 was influenza A, with influenza A (H1N1)pdm09 viruses predominating. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. **Widespread** influenza activity was reported by Puerto Rico and 39 states. **Regional** influenza activity was reported by Guam and 10 states (Alabama, Georgia, Illinois, Louisiana, Mississippi, Tennessee, Texas, Utah, Washington and West Virginia). **Local** influenza activity was reported by the District of Columbia and Hawaii. The U.S. Virgin Islands did not report. Both national and state data are provisional and subject to change as additional reports are received.

Delaware Influenza Surveillance 2015-2016:

During Week 11 there were 306 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 0.92%**, (baseline is 1.8%). **Nationally, ILI is 3.2%** (national baseline is 2.1%).

Level of Influenza Activity in Delaware, MMWR Week 11:

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

¹ 2015-2016 Region 3 (DE, DC, MD, PA, VA and WV) baseline = 1.8%.

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 states with ≤ four counties.

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Table 1a. Influenza positive¹ cases reported² statewide and county by subtype (A) or lineage (B)³, Delaware 2015-16

| Confirmed Flu Cases by Subtype / Lineage | | Wk 40-52 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | YTD | YTD Total | YTD County % |
|--|------------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-----|-----------|--------------|
| STATEWIDE | A / 2009 H1N1 | 1 | 1 | 0 | 2 | 2 | 2 | 9 | 24 | 58 | 77 | 91 | 66 | 333 | 1,138 | |
| | A / 2012 H3N2 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 0 | 16 | | |
| | A / no subtype | 3 | 3 | 0 | 0 | 2 | 2 | 7 | 10 | 38 | 92 | 261 | 169 | 586 | | |
| | A,B co-infection | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | |
| | B / Yamagata | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 3 | 1 | 5 | 6 | 24 | | |
| | B / Victoria | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 4 | 7 | 5 | 9 | 31 | | |
| | B / no lineage | 4 | 0 | 1 | 0 | 1 | 0 | 1 | 3 | 13 | 17 | 51 | 56 | 147 | | |
| New Castle County | A / 2009 H1N1 | 1 | 1 | 0 | 0 | 1 | 0 | 8 | 14 | 42 | 61 | 73 | 51 | 252 | 762 | 67.0% |
| | A / 2012 H3N2 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 11 | | |
| | A / no subtype | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 3 | 21 | 65 | 170 | 126 | 392 | | |
| | A,B co-infection | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | |
| | B / Yamagata | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 1 | 4 | 6 | 21 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 1 | 3 | 3 | 13 | | |
| | B / no lineage | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 7 | 25 | 29 | 72 | | |
| Kent County | A / 2009 H1N1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 5 | 8 | 5 | 6 | 31 | 220 | 19.3% |
| | A / 2012 H3N2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | A / no subtype | 2 | 0 | 0 | 0 | 1 | 0 | 3 | 5 | 8 | 19 | 60 | 28 | 126 | | |
| | B / Yamagata | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| | B / Victoria | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 6 | | |
| | B / no lineage | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 4 | 5 | 20 | 22 | 56 | | |
| | B / no lineage | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 4 | 5 | 20 | 22 | 56 | | |
| Sussex County | A / 2009 H1N1 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 5 | 11 | 8 | 13 | 9 | 50 | 156 | 13.7% |
| | A / 2012 H3N2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 5 | | |
| | A / no subtype | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 9 | 8 | 31 | 15 | 68 | | |
| | B / Yamagata | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 2 | 3 | 12 | | |
| | B / no lineage | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 6 | 5 | 19 | | |
| | B / no lineage | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 6 | 5 | 19 | | |

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2015-16

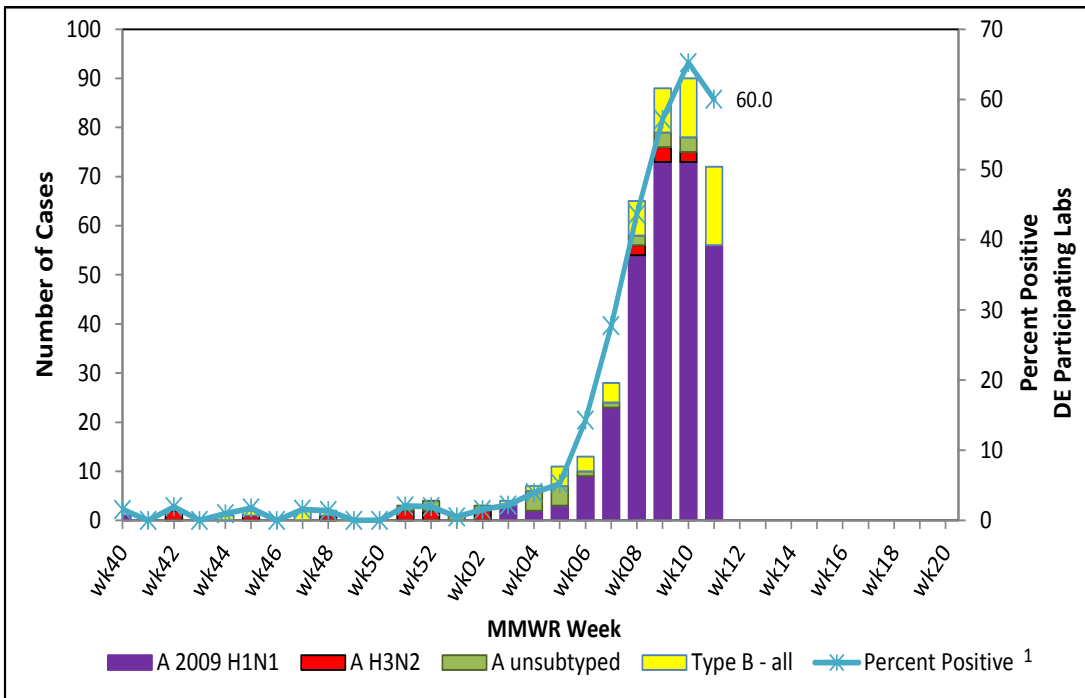
| Confirmed Flu Cases by Age Group | | Wk 40-52 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | YTD | YTD Total | YTD County % |
|----------------------------------|-------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-----|-----------|--------------|
| STATEWIDE | 0-4 years | 2 | 0 | 0 | 2 | 1 | 0 | 5 | 7 | 22 | 41 | 76 | 55 | 211 | 1,138 | |
| | 5-24 years | 6 | 2 | 1 | 0 | 1 | 3 | 7 | 8 | 34 | 56 | 131 | 105 | 354 | | |
| | 25-49 years | 6 | 1 | 1 | 1 | 1 | 2 | 5 | 15 | 37 | 63 | 102 | 79 | 313 | | |
| | 50-64 years | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 9 | 15 | 24 | 65 | 37 | 156 | | |
| | 65+ years | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 10 | 14 | 41 | 30 | 104 | | |
| New Castle County | 0-4 years | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 13 | 35 | 65 | 45 | 168 | 762 | 67.0% |
| | 5-24 years | 4 | 2 | 0 | 0 | 1 | 3 | 4 | 4 | 23 | 35 | 91 | 68 | 235 | | |
| | 25-49 years | 4 | 0 | 0 | 0 | 1 | 1 | 3 | 5 | 23 | 41 | 50 | 48 | 176 | | |
| | 50-64 years | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 5 | 9 | 17 | 43 | 30 | 107 | | |
| | 65+ years | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 8 | 11 | 26 | 24 | 76 | | |
| Kent County | 0-4 years | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 5 | 4 | 6 | 23 | 220 | 19.3% |
| | 5-24 years | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 5 | 7 | 26 | 25 | 68 | | |
| | 25-49 years | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 8 | 13 | 30 | 18 | 78 | | |
| | 50-64 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 5 | 17 | 6 | 34 | | |
| | 65+ years | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 9 | 4 | 17 | | |
| Sussex County | 0-4 years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 1 | 7 | 4 | 20 | 156 | 13.7% |
| | 5-24 years | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 6 | 14 | 14 | 12 | 51 | | |
| | 25-49 years | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 5 | 6 | 9 | 22 | 13 | 59 | | |
| | 50-64 years | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 2 | 5 | 1 | 15 | | |
| | 65+ years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 6 | 2 | 11 | | |

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, Delaware 2015-16*



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

Table 2. Influenza-related hospitalizations statewide and county, by age group, Delaware 2015-16

| Hospitalized Flu Cases by Age Group | | Wk 40-52 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | YTD | YTD Total | YTD County % |
|-------------------------------------|-------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-----|-----------|--------------|
| STATEWIDE | 0-4 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 6 | 9 | 24 | 199 | |
| | 5-24 years | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 7 | 12 | 4 | 27 | | |
| | 25-49 years | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 9 | 10 | 5 | 30 | | |
| | 50-64 years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 6 | 11 | 21 | 14 | 56 | | |
| | 65+ years | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 7 | 11 | 18 | 20 | 62 | | |
| New Castle County | 0-4 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 5 | 9 | 21 | 160 | 80.4% |
| | 5-24 years | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 10 | 4 | 22 | | |
| | 25-49 years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 | 9 | 5 | 25 | | |
| | 50-64 years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 7 | 18 | 11 | 42 | | |
| | 65+ years | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 6 | 8 | 13 | 18 | 50 | | |
| Kent County | 0-4 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 25 | 12.6% |
| | 5-24 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | | |
| | 25-49 years | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 4 | | |
| | 50-64 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 9 | | |
| | 65+ years | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 9 | | |
| Sussex County | 0-4 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 14 | 7.0% |
| | 5-24 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | | |
| | 25-49 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| | 50-64 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 5 | | |
| | 65+ years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 3 | | |

Table 3. Influenza-related deaths, Delaware 2015-16

| Influenza-related Deaths | Wk 40-52 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | YTD |
|--------------------------|----------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-----|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |

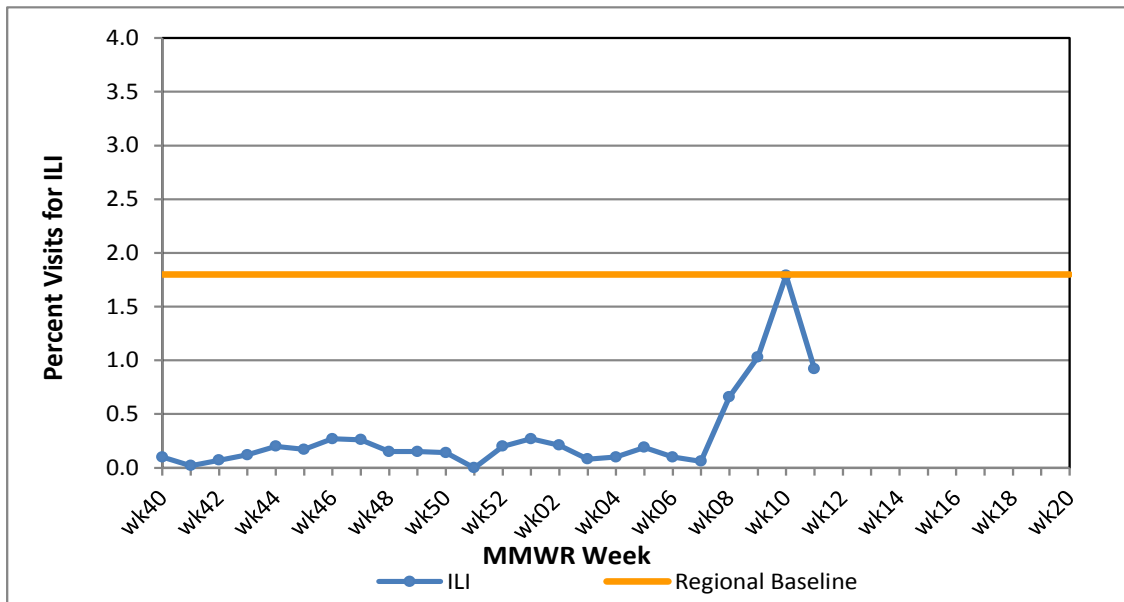
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2015-16

| 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 (YTD) | 1.138 |

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.

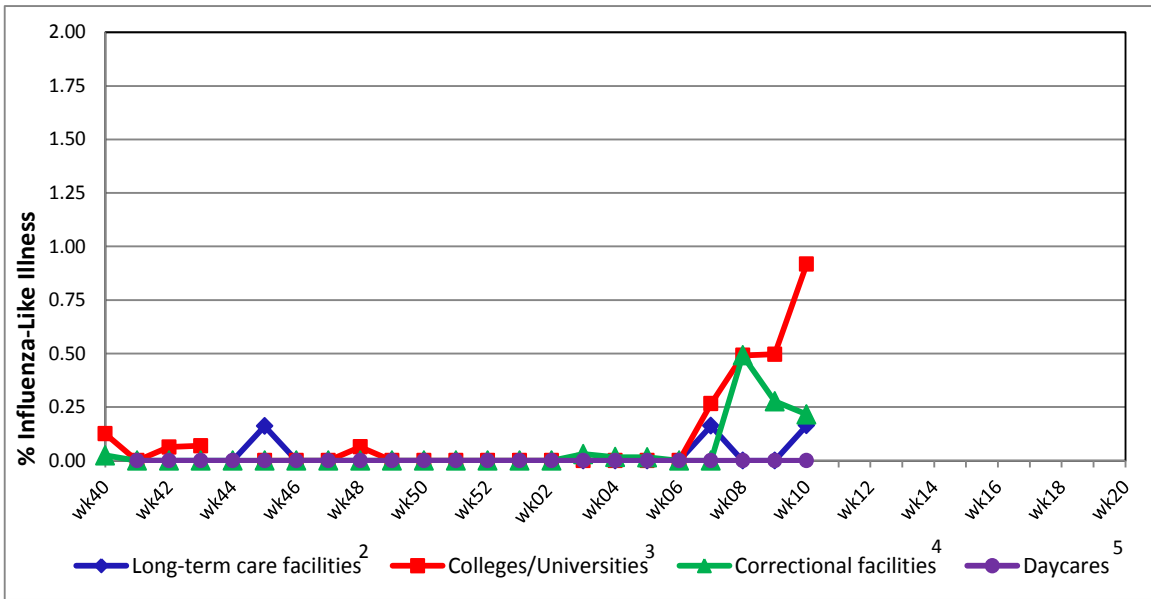
Figure 2. Percentage of visits for influenza-like illness (ILI) reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2015-16



¹ 8 of 17 sentinel providers reported.

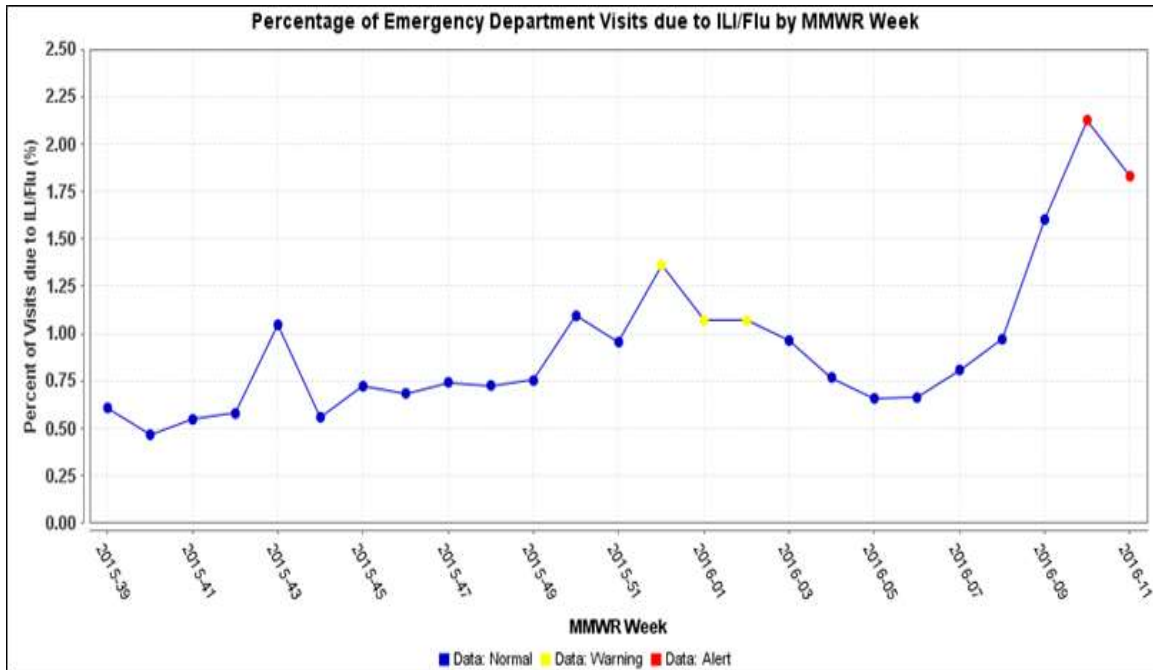
² Regional baseline is calculated by CDC using non-influenza weeks from the previous three influenza seasons. Delaware is in Region 3 that includes DE, DC, MD, PA, VA and WV.

Figure 3. Influenza-like illness reported by influenza surveillance ILI reporting partners¹, Delaware 2015-16



¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities and daycare facilities. Federally qualified health centers are now CDC ILINet sentinel providers.
² % ILI= percentage of residents with ILI symptoms. Six long-term care facilities reported.
³ % ILI= percentage of student visits for ILI; Three universities reported.
⁴ % ILI= percentage of visits for ILI at the correctional facility; Ten correctional facilities reported.
⁵ % ILI= percentage of children absent with ILI; No daycare providers reported.

Figure 4.



Summary of International Influenza Activity

Globally, high levels of influenza activity continued to be reported.

In North America, the majority of indicators related to influenza surveillance continue to have an increasing trend. Influenza activity continued to increase in the U.S., Canada and Mexico. A(H1N1)pdm09 predominated, with influenza B increasing progressively. In Mexico, ARI and pneumonia activity continued to increase above expected levels for this time of year. Low influenza and other respiratory virus were reported in most countries, except in Jamaica and Suriname.

In the Caribbean, influenza and other respiratory virus activity remained low or decreasing. ILI and ARI/SARI activity remained below or within expected levels in all reporting countries. In Central America overall, influenza and other respiratory virus activity remained low or decreased. With other respiratory viruses, moderate RSV activity increased in Costa Rica. ILI and ARI/SARI activity remained below or within expected levels in all reporting countries.

In northern and southwest Europe, influenza detections continued to remain high with increasing activity of influenza B virus. In eastern Europe, influenza activity and SARI activity seemed to have peaked.

In northern temperate Asia, influenza activity was ongoing with influenza B activity predominating. In western Asia, influenza activity continued to decrease. Oman reported ongoing low levels of influenza A(H1N1)pdm09 and influenza B activity. In southeast Asia, ongoing influenza activity was reported during this period with influenza B detections predominant.

In tropical countries of the Americas, Central America and the Caribbean, influenza and other respiratory virus activity were overall at low levels. In Jamaica however, SARI activity remained high with influenza A(H1N1)pdm09 predominating while high RSV activity was reported in Ecuador.

In temperate countries of the Southern Hemisphere influenza virus activity remained low.

RSV – respiratory syncytial virus
ARI - acute respiratory infection
SARI - severe acute respiratory infection

Source: World Health Organization (WHO), 2016. Influenza Update Number 259 (3/21/16 – based on data up to 3/6/16). Retrieved on 3/24/16 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.