



Delaware Weekly Influenza Report

MMWR Week 10 (March 8 - 14, 2015)

Delaware Division of Public Health

National Influenza Synopsis 2014-2015:

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 8 - 14, 2015), influenza activity continued to decrease, but remained elevated in the United States. The overall hospitalization rate was 57.1 per 100,000 population and the highest rate of hospitalization continues to be among adults aged ≥65 years (284.3 per 100,000 population), followed by children aged 0-4 years (50.8 per 100,000 population). The percentage of deaths due to pneumonia and influenza (7.6 percent) remained above the epidemic threshold of 7.2 percent. The geographic spread of influenza was reported as widespread in seven states. Twenty-nine states and Guam reported regional activity, while 13 states and Puerto Rico reported local activity. The District of Columbia and Alaska reported sporadic activity. 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 2014-2015:

During MMWR Week 10, there were 19 laboratory-confirmed cases of influenza reported among Delaware residents, bringing the total number of laboratory-confirmed cases this season to 2,273. Reports of influenza-like illness (ILI) received from participating providers, facilities and institution was 0.44%; well below the regional baseline of 2.0%. ILI was 2.3% nationally, above the national baseline of 2.0%.

Level of Influenza Activity in Delaware, MMWR Week 10:

| | |
|--|---|
| Local | Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of 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>No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.</p> <p>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.</p> <p>Local: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.</p> <p>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</p> <p>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.</p> | |

¹ 2014-2015 Region 3 (DE, DC, MD, PA, VA, and WV) baseline = 2.0%.

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 2014-15

| Confirmed Flu Cases by Subtype / Lineage | | Wk 40-50 | Wk 51 | Wk 52 | Wk 53 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | YTD | YTD Total | YTD County % |
|--|----------------|----------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|------|-----------|--------------|
| STATEWIDE | A / 2009 H1N1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2,273 | |
| | A / 2012 H3N2 | 175 | 88 | 61 | 48 | 49 | 46 | 45 | 40 | 36 | 26 | 12 | 16 | 14 | 10 | 666 | | |
| | A / no subtype | 189 | 241 | 387 | 228 | 141 | 102 | 99 | 58 | 32 | 51 | 23 | 4 | 3 | 1 | 1559 | | |
| | B / Yamagata | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 5 | 14 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| | B / no lineage | 6 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 3 | 6 | 4 | 3 | 3 | 29 | | |
| New Castle County | A / 2009 H1N1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1,010 | 44.4% |
| | A / 2012 H3N2 | 42 | 53 | 40 | 33 | 32 | 30 | 27 | 28 | 18 | 23 | 10 | 13 | 11 | 9 | 369 | | |
| | A / no subtype | 14 | 70 | 184 | 110 | 70 | 44 | 61 | 19 | 7 | 27 | 11 | 2 | 1 | 1 | 621 | | |
| | B / Yamagata | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| | B / no lineage | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 2 | 0 | 11 | | |
| Kent County | A / 2009 H1N1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 831 | 36.8% |
| | A / 2012 H3N2 | 24 | 17 | 13 | 7 | 9 | 12 | 5 | 9 | 12 | 2 | 2 | 2 | 3 | 0 | 117 | | |
| | A / no subtype | 83 | 113 | 177 | 104 | 57 | 43 | 30 | 37 | 21 | 18 | 12 | 2 | 1 | 0 | 698 | | |
| | B / Yamagata | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | B / no lineage | 3 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 0 | 2 | 12 | | |
| Sussex County | A / 2009 H1N1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 432 | 19.0% |
| | A / 2012 H3N2 | 109 | 18 | 8 | 8 | 8 | 4 | 13 | 3 | 6 | 1 | 0 | 1 | 0 | 1 | 180 | | |
| | A / no subtype | 92 | 58 | 26 | 14 | 14 | 15 | 8 | 2 | 4 | 6 | 0 | 0 | 1 | 0 | 240 | | |
| | B / Yamagata | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 6 | | |
| | B / Victoria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | B / no lineage | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 6 | | |

Table 1b. Influenza positive¹ cases reported² statewide and county by age group, Delaware 2014-15

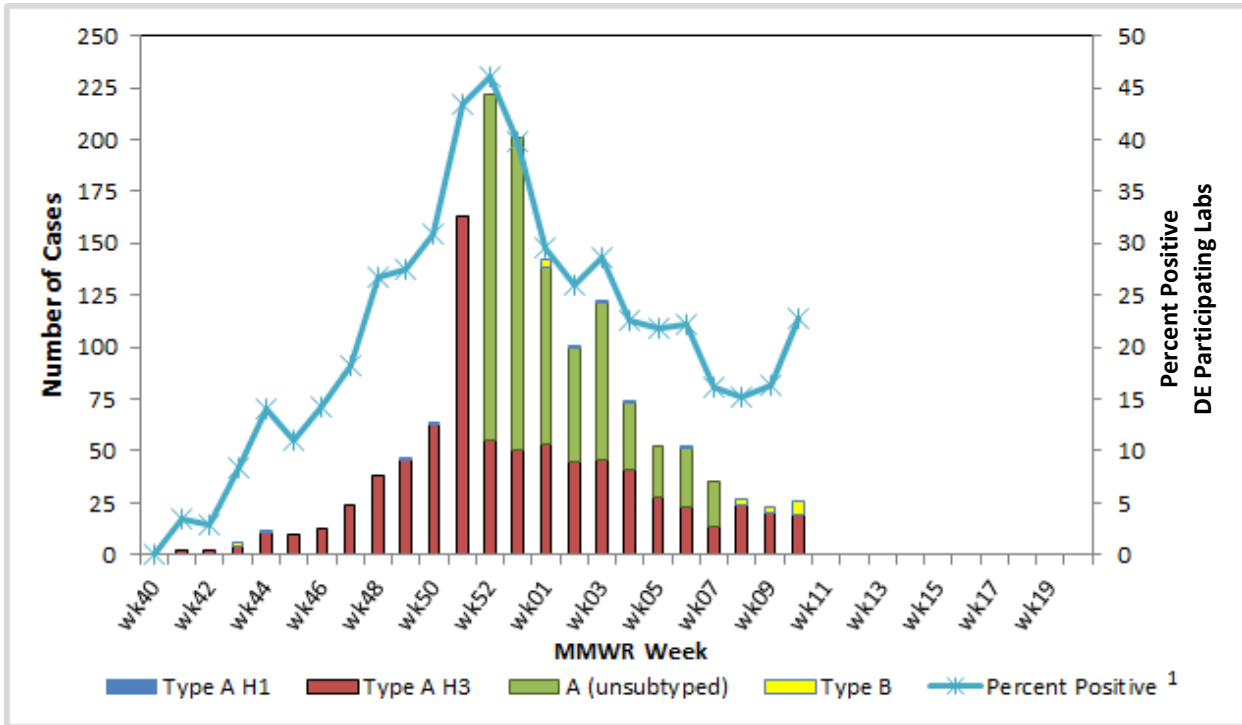
| Confirmed Flu Cases by Age Group | | Wk 40-50 | Wk 51 | Wk 52 | Wk 53 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | YTD | YTD Total | YTD County % |
|----------------------------------|-------------|----------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-----|-----------|--------------|
| STATEWIDE | 0-4 years | 45 | 58 | 73 | 29 | 24 | 24 | 14 | 17 | 5 | 12 | 4 | 5 | 2 | 2 | 314 | 2,273 | |
| | 5-24 years | 165 | 154 | 129 | 31 | 39 | 38 | 26 | 22 | 19 | 14 | 10 | 2 | 4 | 4 | 657 | | |
| | 25-49 years | 83 | 46 | 84 | 58 | 35 | 23 | 32 | 21 | 12 | 10 | 9 | 3 | 7 | 4 | 427 | | |
| | 50-64 years | 30 | 23 | 49 | 43 | 18 | 21 | 24 | 14 | 14 | 12 | 6 | 8 | 2 | 5 | 269 | | |
| | 65+ years | 48 | 49 | 116 | 115 | 77 | 44 | 50 | 24 | 19 | 32 | 12 | 9 | 7 | 4 | 606 | | |
| New Castle County | 0-4 years | 5 | 21 | 33 | 6 | 7 | 8 | 7 | 4 | 4 | 12 | 2 | 3 | 1 | 1 | 114 | 1,010 | 44.4% |
| | 5-24 years | 20 | 56 | 70 | 11 | 16 | 14 | 12 | 8 | 2 | 7 | 8 | 1 | 4 | 2 | 231 | | |
| | 25-49 years | 17 | 18 | 32 | 25 | 21 | 9 | 20 | 12 | 2 | 6 | 2 | 0 | 4 | 1 | 169 | | |
| | 50-64 years | 7 | 4 | 29 | 23 | 7 | 10 | 17 | 7 | 4 | 5 | 4 | 6 | 1 | 5 | 129 | | |
| | 65+ years | 10 | 25 | 60 | 78 | 53 | 33 | 33 | 16 | 13 | 21 | 9 | 7 | 5 | 4 | 367 | | |
| Kent County | 0-4 years | 14 | 26 | 30 | 20 | 16 | 12 | 5 | 12 | 1 | 0 | 2 | 2 | 0 | 1 | 141 | 831 | 36.6% |
| | 5-24 years | 53 | 67 | 51 | 16 | 17 | 19 | 10 | 14 | 17 | 4 | 2 | 1 | 0 | 1 | 272 | | |
| | 25-49 years | 25 | 17 | 48 | 29 | 9 | 11 | 8 | 7 | 5 | 3 | 7 | 1 | 2 | 0 | 172 | | |
| | 50-64 years | 5 | 13 | 15 | 14 | 9 | 8 | 5 | 5 | 7 | 4 | 2 | 1 | 0 | 0 | 88 | | |
| | 65+ years | 13 | 7 | 49 | 32 | 16 | 7 | 8 | 8 | 3 | 10 | 3 | 0 | 2 | 0 | 158 | | |
| Sussex County | 0-4 years | 26 | 11 | 10 | 3 | 1 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 59 | 432 | 19.0% |
| | 5-24 years | 92 | 31 | 8 | 4 | 6 | 5 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 154 | | |
| | 25-49 years | 41 | 11 | 4 | 4 | 5 | 3 | 4 | 2 | 5 | 1 | 0 | 2 | 1 | 3 | 86 | | |
| | 50-64 years | 18 | 6 | 5 | 6 | 2 | 3 | 2 | 2 | 3 | 3 | 0 | 1 | 1 | 0 | 52 | | |
| | 65+ years | 25 | 17 | 7 | 5 | 8 | 4 | 9 | 0 | 3 | 1 | 0 | 2 | 0 | 0 | 81 | | |

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, these influenza cases will be categorized as Influenza B, no lineage identified.

Figure 1. Confirmed cases¹ of influenza by type and subtype/lineage, Delaware 2014-15*



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 2014-15

| Hospitalized Flu Cases by Age Group | | Wk 40-50 | Wk 51 | Wk 52 | Wk 53 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | YTD | YTD Total | YTD County % |
|-------------------------------------|-------------|----------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-----|-----------|--------------|
| STATEWIDE | 0-4 years | 3 | 1 | 7 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 602 | |
| | 5-24 years | 4 | 2 | 6 | 2 | 4 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 1 | 27 | | |
| | 25-49 years | 3 | 6 | 7 | 12 | 9 | 5 | 7 | 7 | 1 | 2 | 2 | 0 | 3 | 2 | 66 | | |
| | 50-64 years | 4 | 5 | 18 | 21 | 9 | 6 | 12 | 4 | 3 | 2 | 2 | 1 | 1 | 3 | 91 | | |
| | 65+ years | 20 | 27 | 73 | 89 | 58 | 28 | 35 | 15 | 11 | 25 | 8 | 7 | 3 | 4 | 403 | | |
| New Castle County | 0-4 years | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 438 | 72.8% |
| | 5-24 years | 2 | 2 | 5 | 2 | 3 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 1 | 23 | | |
| | 25-49 years | 3 | 4 | 5 | 9 | 7 | 4 | 5 | 7 | 0 | 2 | 1 | 0 | 3 | 1 | 51 | | |
| | 50-64 years | 2 | 0 | 14 | 18 | 6 | 5 | 10 | 3 | 2 | 1 | 2 | 1 | 1 | 3 | 68 | | |
| | 65+ years | 8 | 17 | 41 | 67 | 48 | 22 | 30 | 11 | 9 | 17 | 8 | 7 | 3 | 4 | 292 | | |
| Kent County | 0-4 years | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 112 | 18.6% |
| | 5-24 years | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | |
| | 25-49 years | 0 | 1 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 10 | | |
| | 50-64 years | 1 | 4 | 4 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 19 | | |
| | 65+ years | 2 | 2 | 28 | 18 | 5 | 3 | 4 | 4 | 1 | 7 | 0 | 0 | 0 | 0 | 74 | | |
| Sussex County | 0-4 years | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 52 | 8.6% |
| | 5-24 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 25-49 years | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 5 | | |
| | 50-64 years | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | |
| | 65+ years | 10 | 8 | 4 | 4 | 5 | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 37 | | |

Table 3. Influenza-related deaths, Delaware 2014-15

| Influenza-Related Deaths | Wk 40-46 | Wk 47 | Wk 48 | Wk 49 | Wk 50 | Wk 51 | Wk 52 | Wk 53 | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | YTD |
|--------------------------|----------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-----|
| | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 5 | 3 | 1 | 2 | 0 | 4 | 2 | 0 | 0 | 28 |

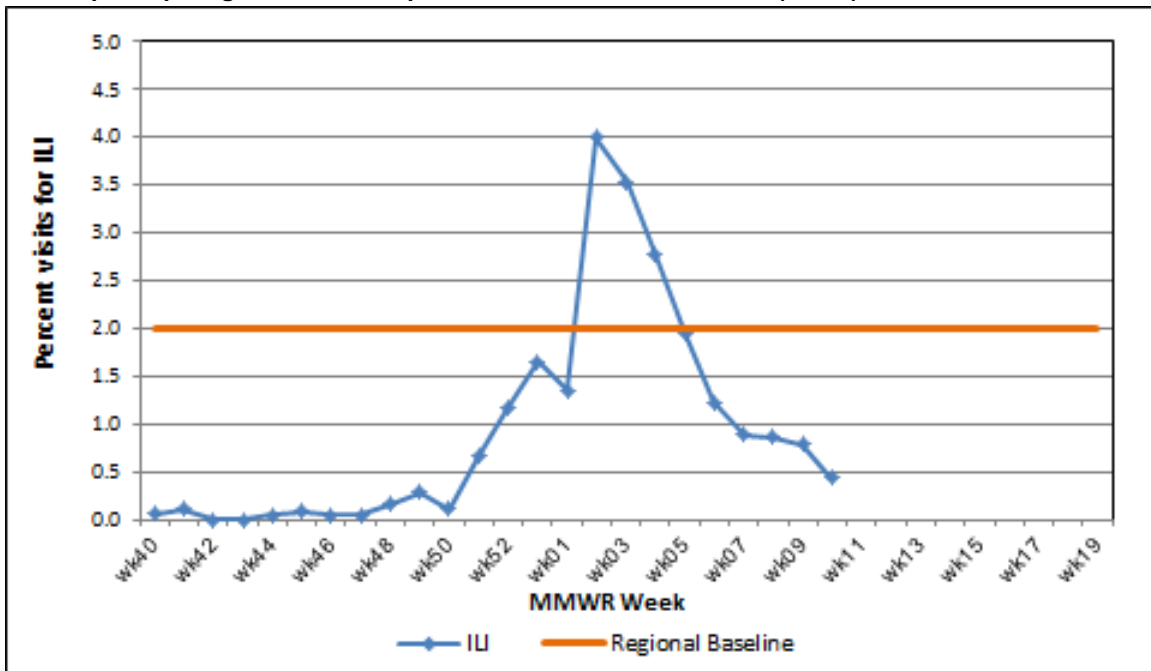
Table 4. Annual number of influenza cases reported by flu season, Delaware 2004-05 through 2014-15

| 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 (YTD) | 2,273 |

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.

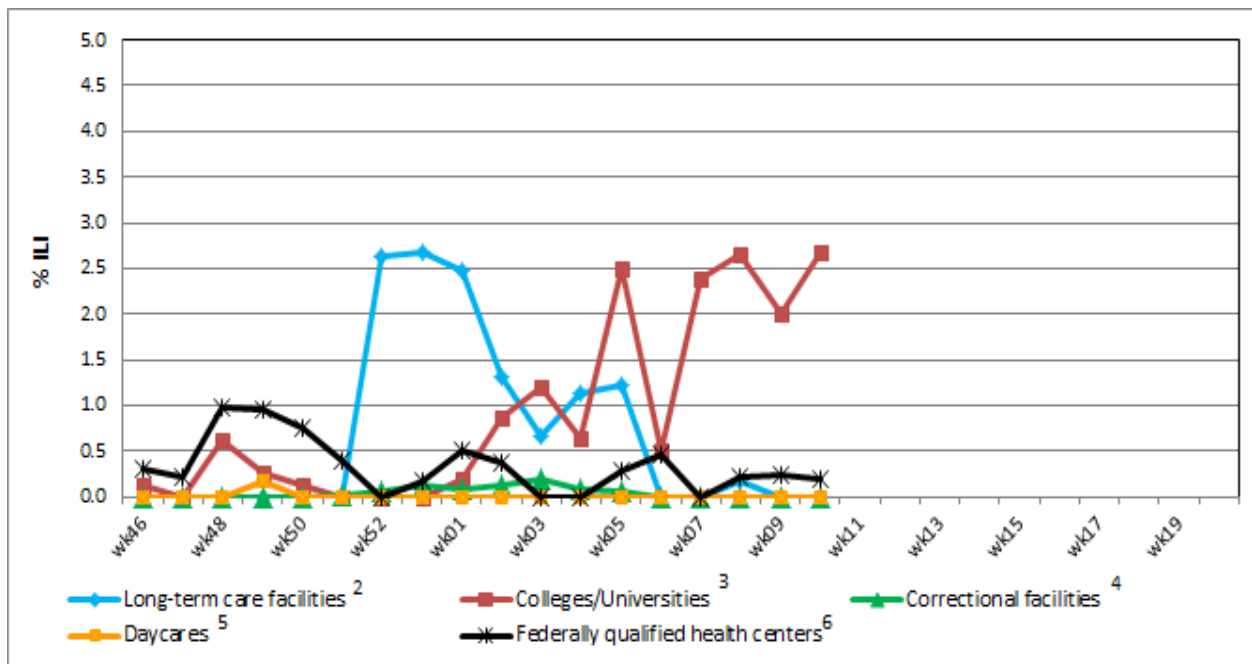
Figure 2. Percentage of visits for influenza-like illness reported by sentinel providers¹ participating in the U.S. Outpatient ILI Surveillance Network (ILINet), Delaware 2014-15



¹ Eleven of 16 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 2014-15



¹ ILINet reporting partners include long-term care facilities, colleges / universities, correctional facilities, daycare facilities and federally qualified health centers (FQHCs).

² % ILI= percentage of residents with ILI symptoms. Six long-term care facilities reported.

³ % ILI= percentage of student visits for ILI; Two universities reported.

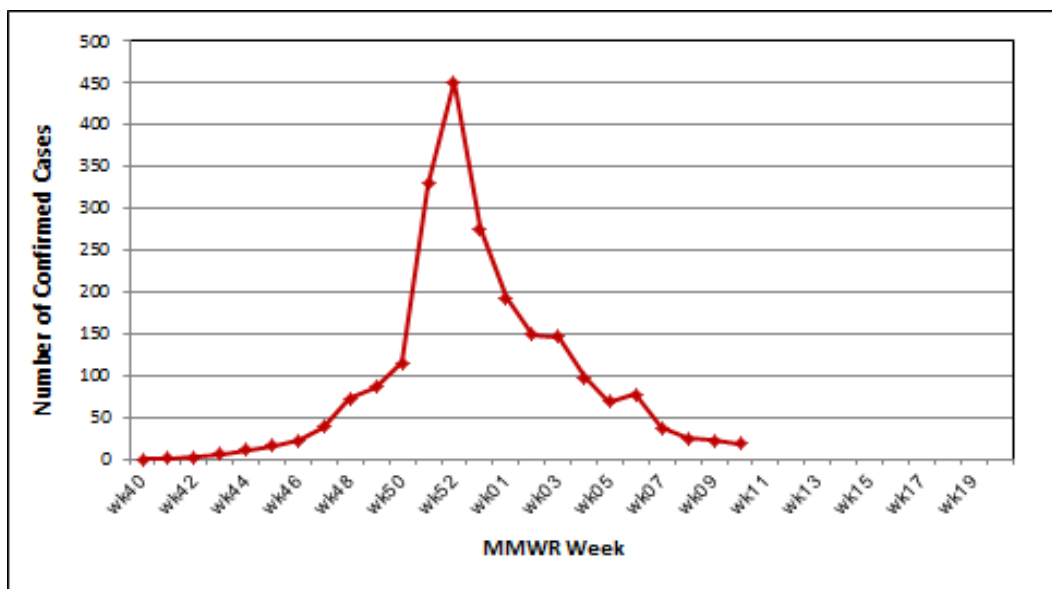
⁴ % ILI= percentage of visits for ILI at the correctional facility; Ten facilities reported.

⁵ % ILI= percentage of children absent with ILI; One daycare provider reported.

⁶ % ILI= percentage of visits for ILI at FQHCs; LaRed (Seaford & Georgetown) and Henrietta Johnson Medical Center (Wilmington & Southbridge).

⁷ The regional baseline is calculated by CDC using non-influenza weeks from the previous three influenza seasons. Delaware is part of Region 3 that also includes DC, MD, PA, VA and WV.

Figure 4. Number of confirmed influenza cases by MMWR week, Delaware 2014-15



Note: Data on the percentage of Delaware emergency department visits related to influenza (formerly Figure 4) are not available from week 5 on.

Summary of International Influenza Activity

Globally, influenza activity remained high in the northern hemisphere with influenza A(H3N2) viruses predominating. Some countries in Africa, Asia and southern part of Europe reported an increased influenza A(H1N1)pdm09 activity. In North America, the influenza activity remained elevated following the influenza peak. Influenza A(H3N2) remained the dominant virus detected this season. In the United States, ILI activity (3%) remained above the national baseline of 2%. Influenza detections (12.1% positivity) continued to decrease while influenza A (not subtyped) and influenza A(H3) predominated. Nearly 70 percent (69.7%) of influenza A(H3N2) strains characterized differ from the current vaccine strain. ILI activity (2.4%) decreased this week but remained above the national baseline of 2.0%. In Canada, ILI activity decreased this week and is within expected levels. Influenza A detections continued to decrease while those of influenza B continue to increase. In the Caribbean, respiratory virus activity remained low with the exception of Puerto Rico, where influenza activity remained high but decreasing, and Jamaica, where active circulation of A(H3N2) has been reported.

In Europe, the influenza season was at its height, particularly in central and western countries. Influenza A(H3N2) virus continued to predominate this season. Influenza activity continues to increase in eastern and central countries of the WHO European Region, but is decreasing in western countries. In northern Africa and the Middle East, influenza activity was decreasing in most of the region and Influenza A was predominant. In the temperate countries of Asia, influenza activity decreased from its peak in northern China and Mongolia, but continued to increase in the Republic of Korea. Influenza A(H3N2) virus predominated. In the southern hemisphere, influenza activity continued at inter-seasonal levels.

Reference: World Health Organization (WHO), 2015. Influenza Update number 232 (3/9/15). Retrieved on March 11, 2015, 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 influenza data available. Please visit us at flu.delaware.gov or <http://dhss.delaware.gov/dhss/dph/dpc/immunize-flu.html> for general information on the flu or specific information on DPH flu clinics.

- 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 information, please call 302-744-1060.