



## 2017-2018 Influenza Season, Update for Week 10\*

(Week ending Saturday, 03/10/2018)

### Key Points

- ✓ Although national influenza activity has peaked in many areas, it remains high and widespread within some regions of the continental United States including the Northeast. The US Centers for Disease Control and Prevention (CDC) reported that the percentage (3.7%) of people seeing their health care provider with influenza-like-illness (ILI) continues to decline from the percentage (7.7%) observed during the peak weeks of this current season.
- ✓ In Connecticut, influenza activity has peaked but classification of geographic activity remains at **widespread\*\***.
- ✓ Influenza A (H3N2) viruses continue to predominate within the US and Connecticut although more influenza A (H1N1) and influenza B viruses are circulating.
- ✓ It remains important to get a flu vaccine and take other important steps to prevent influenza-related illness and hospitalization:
- ✓ <http://www.portal.ct.gov/DPH/Infectious-Diseases/Immunization/Seasonal-Influenza>

The Department of Public Health (DPH) uses multiple surveillance systems to monitor circulating flu viruses throughout the year. All data are considered preliminary and updated with available information each week starting in October and ending in May.

- Statewide emergency department visits attributed to the “fever/flu syndrome” have decreased for the past five weeks, and at 7.3% remains well above 5% statewide; 5% is generally considered the baseline when there are increased influenza-associated ED visits (Figure 1).
- The percentage of outpatient visits with influenza-like illness (ILI) has decreased for the past four weeks, and at 4.2% remains well above 1% statewide; 1% is generally considered the baseline when there are increased influenza-associated visits in the outpatient setting (Figure 2).
- The percentage of unscheduled hospital admissions due to pneumonia has decreased to 3.4%; 4% is generally considered the baseline when there are increased pneumonia hospitalizations due to influenza (Figure 3).
- A total of 2,418 hospitalized patients with laboratory-confirmed influenza admitted between August 27 and March 10, 2018 have been reported. Of these, 1,416 were Type A (subtype unspecified), 465 were Type A (H3N2), 26 were Type A (2009 H1N1), 505 were influenza B virus, and 6 of unknown type. A total of 119 influenza-associated deaths (88 associated with flu A, 30 with flu B, 1 of unknown type). Of these deaths, 98 were among patients at least 65 years of age, 12 were 50-64 years of age, 5 were 25-49 years of age, 1 was between 19-24 years of age, and 3 were  $\leq 18$  years of age. The current season total of 119 deaths is

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above the range of influenza-associated deaths (1-65) reported during the previous five seasons (Figures 4 & 5).

- A total of 8,117 influenza positive laboratory tests have been reported during the current season (August 27 – March 10, 2018): New Haven (2,420), Fairfield (2,465), Hartford (1,290), Middlesex (560), New London (415), Litchfield (235), Windham (295), Tolland (178) and currently unknown county (259). Of the 8,117 positive influenza reports: 4,467 were Type A (subtype unspecified), 1,157 were Type A (H3N2), 159 were Type A (2009 H1N1), 2,322 were influenza B viruses, and 12 were unknown type. Of note, the percentage of influenza B infections is increasing (Figures 6 & 7).
- Three additional figures are again included in this week's update. Since 2003, the Connecticut Emerging Infections Program at the Yale School of Public Health conducts active surveillance for laboratory-confirmed, influenza-associated hospitalizations as part of the national FluSurv-NET system. EIP staff work with the Connecticut Department of Public Health (CTDPH), the Centers for Disease Control and Prevention (CDC), and local hospitals to conduct surveillance for hospitalized cases of influenza among residents of southern Connecticut. Together with other FluSurv-NET sites, these data provide near real time estimates of influenza severity in the US: <https://publichealth.yale.edu/eip/projects/flu.aspx>. Figure 8 displays total New Haven and Middlesex County resident hospitalizations by MMWR week\* (current counts for week 11 are also displayed) and age category. Please note that the vast majority of hospitalizations are among residents greater than 65 years of age. Figure 9 displays total New Haven and Middlesex County resident hospitalizations by MMWR week\* (current preliminary counts for week 11 are also displayed) and flu type. Please note that the vast majority of hospitalizations among New Haven and Middlesex County residents are associated with influenza A infections although the proportion of influenza infections due to type B have been increasing for several weeks. Figure 10 compares these current 2017-2018 influenza season New Haven and Middlesex County resident hospitalizations with those of the previous two influenza seasons (2016-17 and 2015-16). Please also note that hospitalizations for weeks 3, 4 and 5 were the highest numbers reported within the last three flu seasons.

\* Week numbers refer to the Morbidity and Mortality Weekly Report calendar used by the federal Centers for Disease Control and Prevention (CDC) for national disease surveillance.

\*\* Definitions for the estimated levels of geographic spread of influenza activity available at:  
<http://www.cdc.gov/flu/weekly/overview.htm>

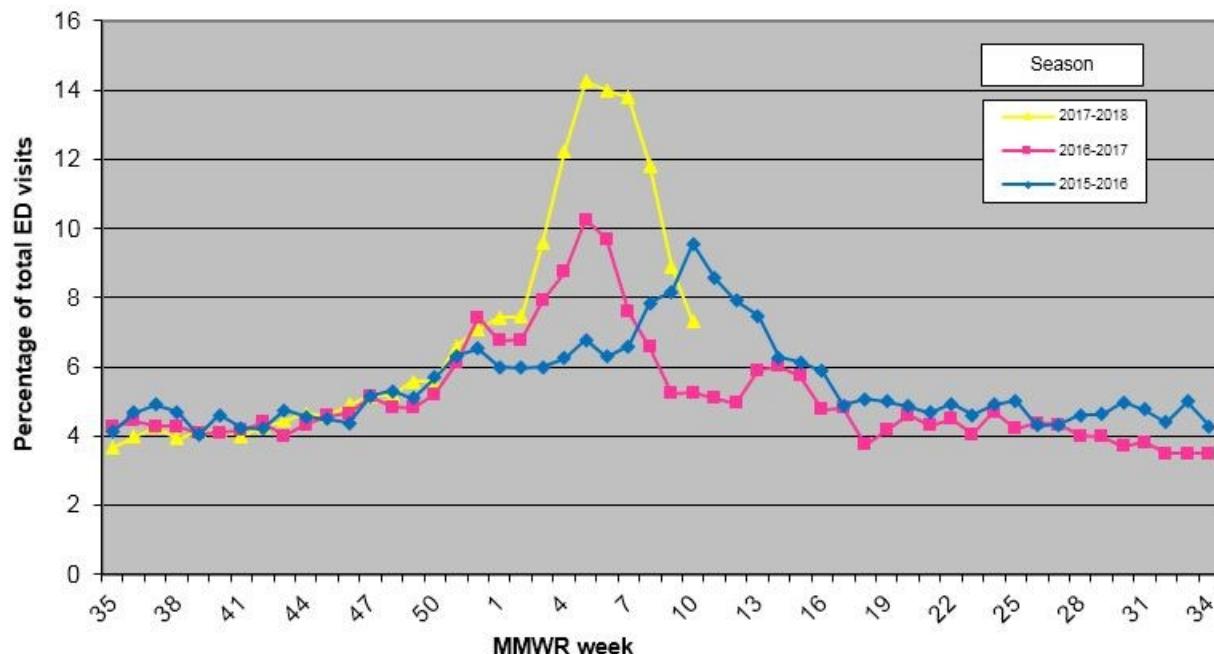
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The Hospital Emergency Department Syndromic Surveillance (HEDSS) System receives daily electronic reports on ED visits from all 33 hospital-affiliated emergency departments in Connecticut. Data include a listing of total patient visits with information on their chief complaint, including fever/flu.

**Figure 1. Connecticut Hospital Emergency Department Syndromic Surveillance (HEDSS) System: Percentage of total ED visits for "fever/flu" syndrome category, 2017-2018 influenza season compared to past seasons, MMWR Week 10 (week ending 3/10/2018)**



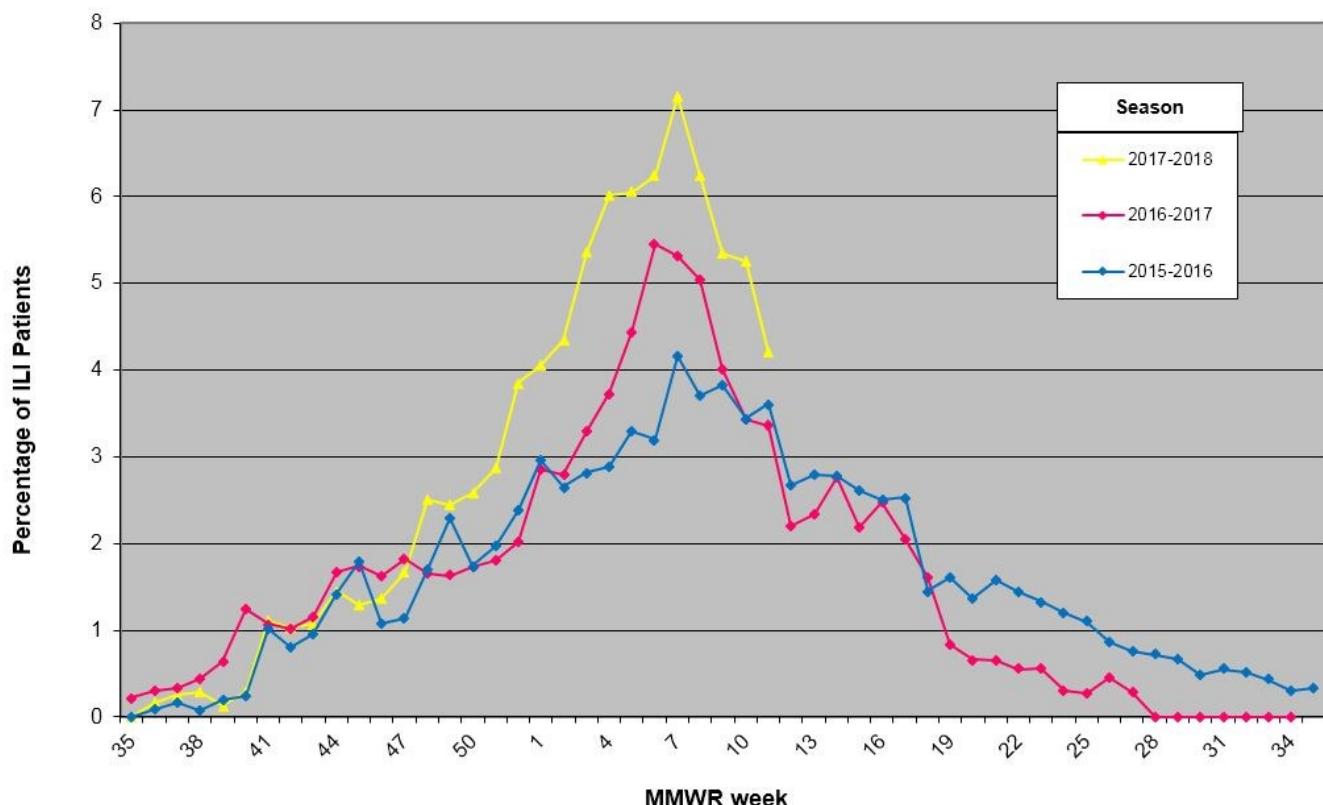
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**Sentinel Provider Surveillance System:** Reporting of influenza-like illness (ILI) is conducted through a statewide network of volunteer outpatient providers known as ILINet. The proportion of patients exhibiting ILI is reported to the DPH on a weekly basis. ILI is defined as a cough or sore throat in the absence of a known cause, and the presence of a fever > 100° F.

**Figure 2. Outpatient Influenza-Like Illness Surveillance Network (ILINet), Percentage of Patients with Influenza-Like Illness (ILI); 2015-16, 2016-17, 2017-18**



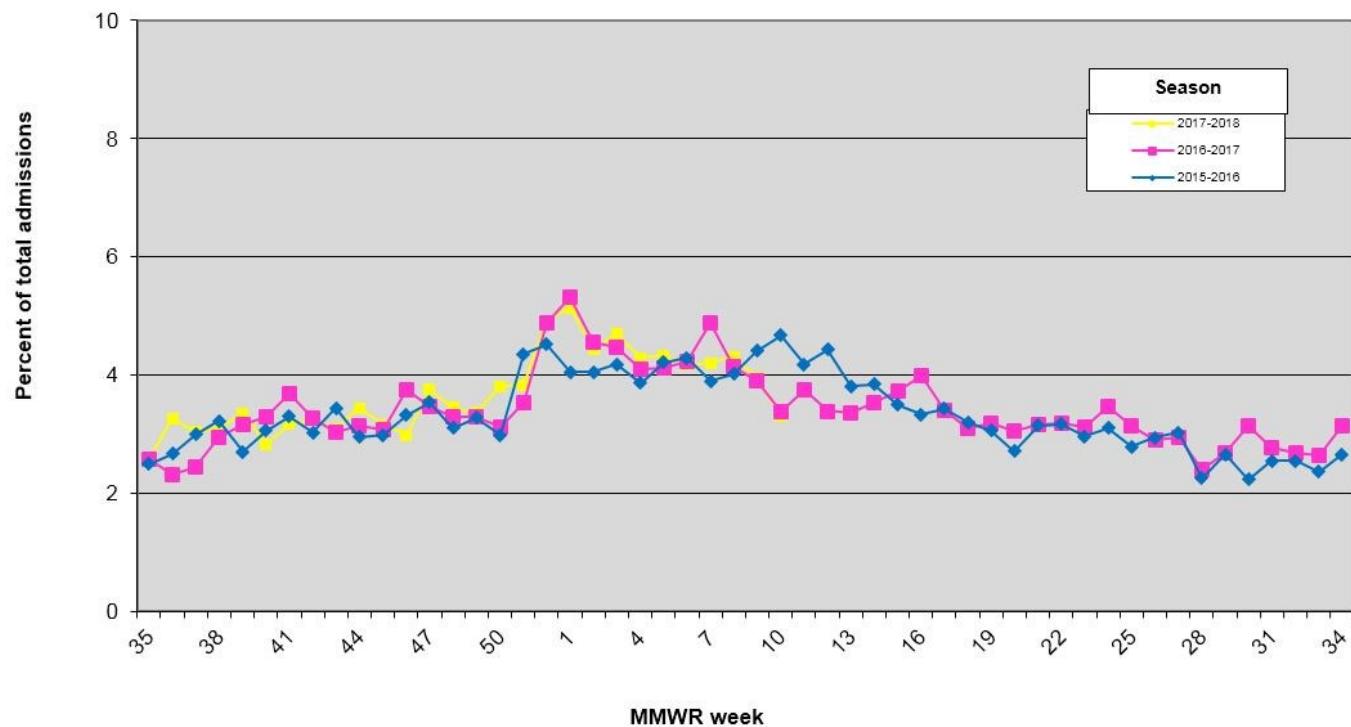
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The **Hospital Admissions Syndromic Surveillance (HASS) System**, receives daily electronic reports from all 32 acute care hospitals in Connecticut. Information on unscheduled admissions, including those for pneumonia that may be associated with influenza infections, is submitted.

**Figure 3: Connecticut Hospital Admissions Syndromic Surveillance (HASS) System, Percentage of total statewide admissions for pneumonia; 2015-16, 2016-17, 2017-18**



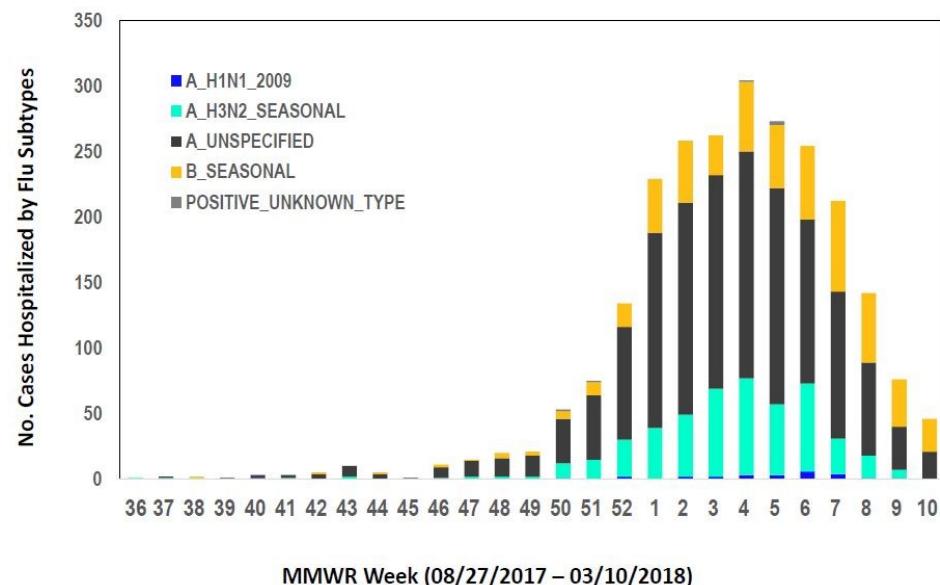
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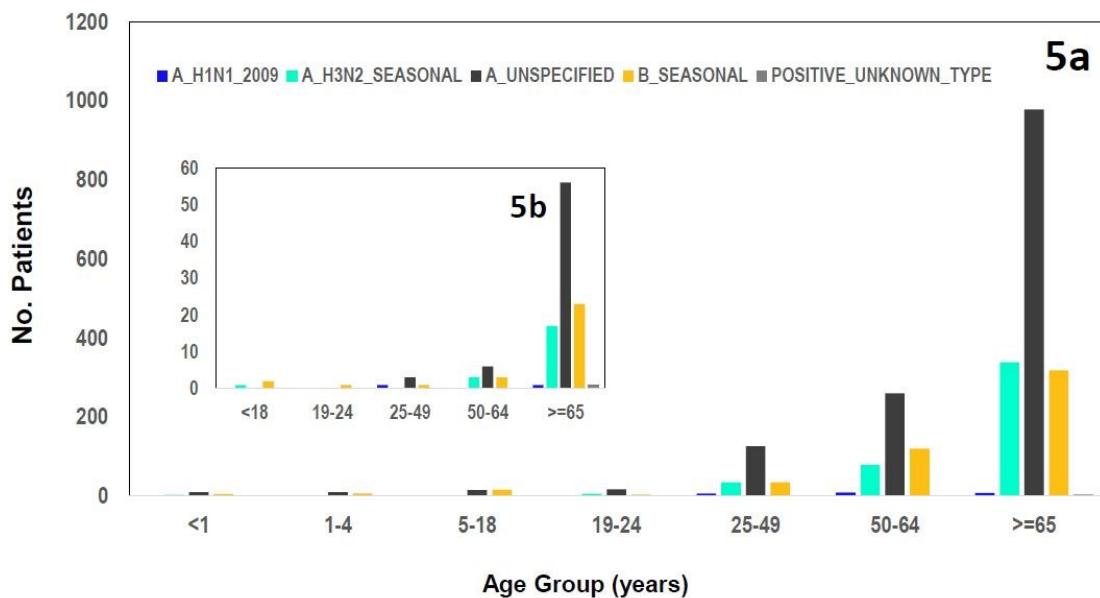
**Influenza-associated Hospitalizations:** In Connecticut, influenza-associated hospitalizations and deaths are reportable. Data collected describe the more serious illnesses associated with influenza infections.

**Figure 4. Hospitalized Patients (n =2418) with Positive Lab Tests by Subtype & Week, Connecticut, through 3/10/2018**



MMWR Week (08/27/2017 – 03/10/2018)

**Figure 5. Hospitalized Patients (5a, n=2418) and Flu-Associated Death (5b, n=119) with Positive Laboratory Tests by Influenza Subtype and Age Group, Connecticut, through 3/10/2018**



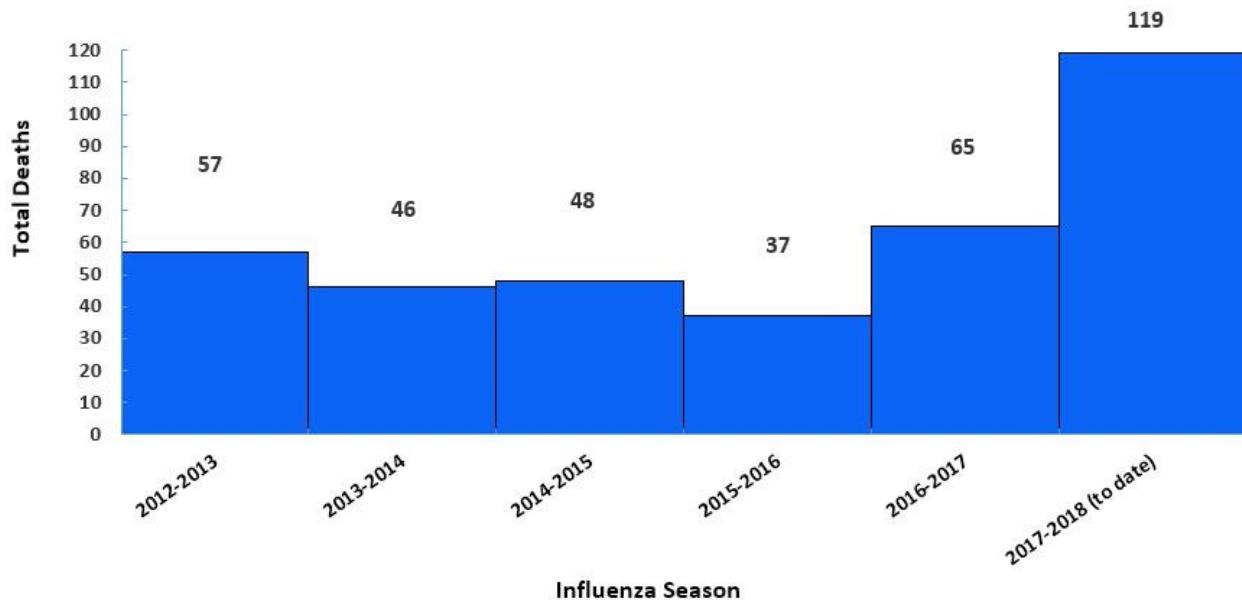
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**Influenza-associated Deaths:** Comparison of the total number of flu-associated deaths reported in Connecticut during the current and previous five flu seasons starting with the onset of improved reporting during the 2012-13 flu season.

**Figure 5c. Total Number of Influenza-associated Deaths in Connecticut by Influenza Season, 2012-13 through 3/10/2018**



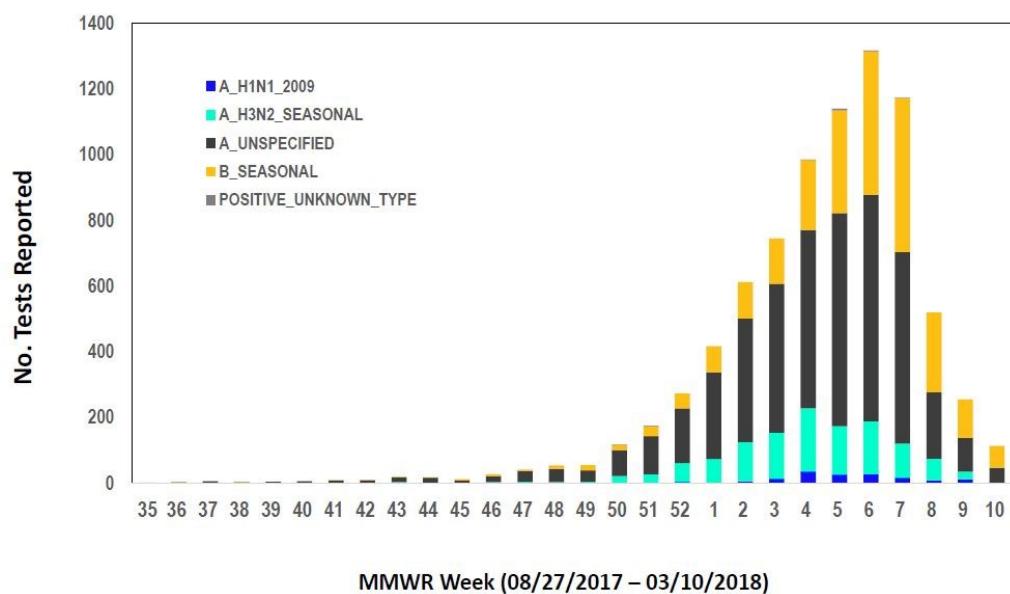
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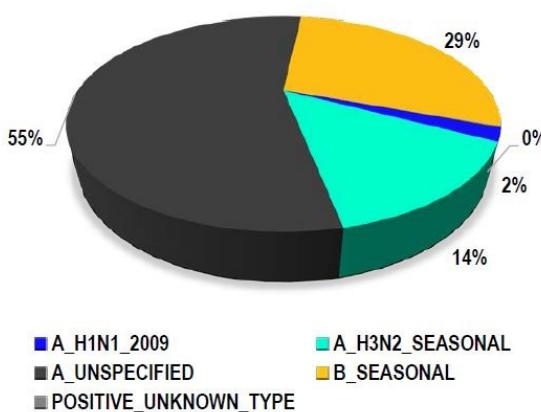
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**Laboratory Surveillance:** Positive influenza tests are laboratory reportable findings in Connecticut. The DPH tracks these results to determine what types, subtypes, and strains are circulating.

**Figure 6. Positive Laboratory Tests (n = 8117) by Influenza Subtype and Week, Connecticut, through 3/10/2018**



**Figure 7. Proportion of Cumulative Positive Laboratory Tests (n = 8117) by Influenza Subtype, Connecticut, through 3/10/2018**



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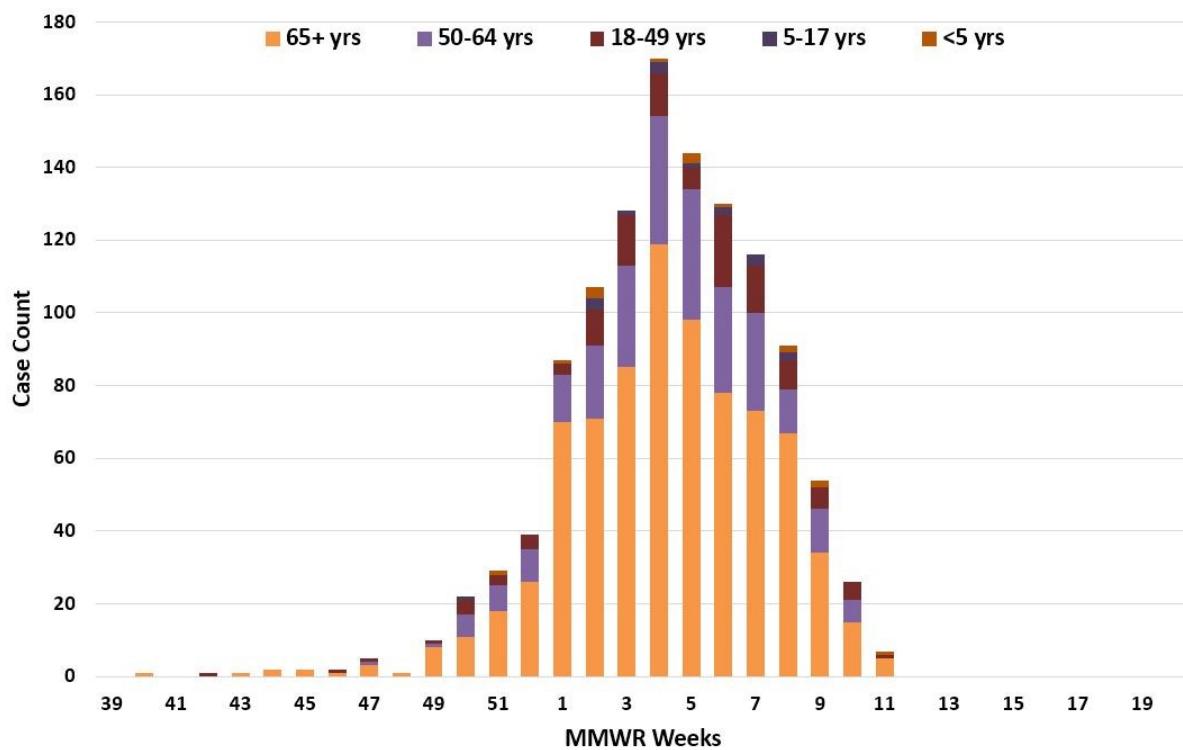
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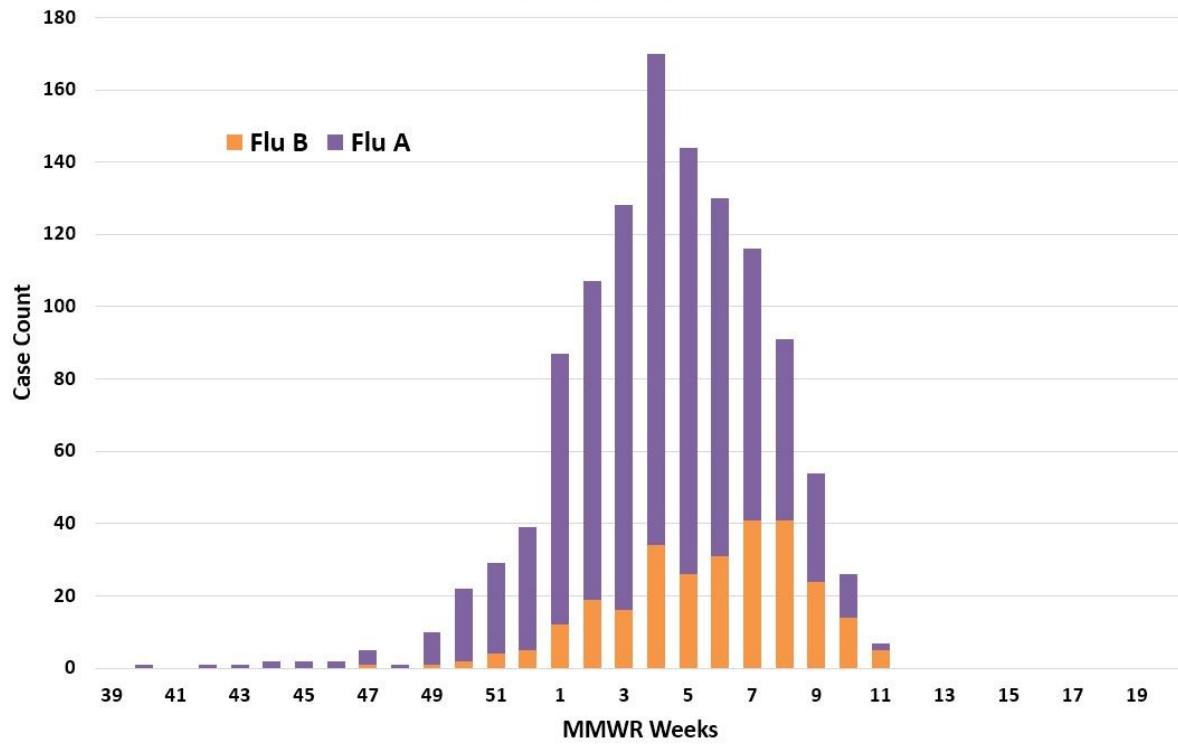
**Hospitalizations in residents of New Haven and Middlesex Counties:** Three new figures are included in this week's update. Since 2003, the Connecticut Emerging Infections Program at the Yale School of Public Health conducts active surveillance for laboratory-confirmed, influenza-associated hospitalizations as part of the national FluSurv-NET system. EIP staff work with the Connecticut Department of Public Health (CTDPH), the Centers for Disease Control and Prevention (CDC), and local hospitals to conduct surveillance for hospitalized cases of influenza among residents of southern Connecticut. Together with other FluSurv-NET sites, these data provide near real time estimates of influenza severity in the US:

<https://publichealth.yale.edu/eip/projects/flu.aspx>

**Figure 8: Influenza-Associated Hospitalizations, by Age Group**  
New Haven and Middlesex Counties,  
1 October 2017-14 March 2018



**Figure 9: Influenza-Associated Hospitalizations,  
New Haven and Middlesex Counties, CT Emerging Infections Program  
2017-18 (preliminary)**



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**Figure 10: Influenza Hospitalizations, New Haven and Middlesex Counties  
CT Emerging Infections Program,  
2015-16 through 2017-18 (preliminary)**

