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### Influenza (FLU) Update for Week #10 Week Ending 3-10-18

Although Flu and ILI is still fairly widespread and above the national baseline, respectively, Week #10 was the fourth week with significant decreases in most flu indicators. The peak of the season was when ILI was at a high of 7.5%, which occurred during Week #5, ending 2/3/18. On average for the past five Flu seasons, ILI has remained at/above the national baseline for 16 weeks; 20 weeks is the longest. **This is the 16<sup>th</sup> week this Flu season that ILI has been at/above baseline, which correlates with the active season experienced.** The one indicator that showed increases in the cumulative and all reported ages, was in hospitalizations for Flu and Pneumonia. Flu and ILI activity is likely to continue into April.

See this link for more details, including charts, graphs, and maps: <https://www.cdc.gov/flu/weekly>

A quick glance at the graphs for *Percentages of Visits for ILI and Pneumonia and Influenza Mortality Surveillance*, gives a pictorial presentation of the severity of this flu season.

### FirstWatch RIN (Reginal Influenza Network) Alerts showed another decrease in occurrence, which correlated with CDC reports.

For the most recently reported week ending March 10, 2018, the CDC reported:

--**ILI visits** to clinics and other non-hospital facilities decreased again but remained elevated at 3.3% (was 3.7% last week). All 10 Regions again reported ILI at or above their region-specific baselines with 46 of 54 jurisdictions reporting ELEVATED.

--**Flu cases** (documented by positive Flu tests) also decreased but remained elevated with widespread flu reported in 26 states. Clinical lab testing for influenza was positive for Flu in 15% of the total tests (compared with 17.7% last week). This trend should continue.

--**Influenza B** remained the slightly dominant Flu type with 53.5% of the positive flu tests reported (50.1% last week). The remainder of the Flu tests were Influenza A at a close 46.5% (49.9% last week), with the subtype H3N2 with 71.5% of the time (67.9% last week) and 22.7% (28.5% last week) as A (H1N1)pdm09.

--**Vaccine Coverage:** the majority of the flu viruses collected this season are well matched to the seasonal vaccine offered, although less so, with the now slightly less dominant H3N2. The remaining H1N1 and the B Flus have a better response. Overall, vaccine effectiveness is still less than hoped for, but it appears that the flu vaccine decreased the likelihood of seeing a health care practitioner because of Flu about 36% this season, with the percentage increasing as H1N1 and Influenza B Flus dominate. It is still recommended that anyone who has not received flu vaccine get it ASAP, since even if it doesn't prevent the flu in everyone, the length and severity of the Flu would likely be lessened as well the time when a person is able to infect someone else.

**The CDC provides an interactive U.S. map that will link to each state's public health authorities, ILI and Flu information and processes, as well as other diseases and public health topics. This site includes a tremendous amount of information at the State, and even Local, level.**

Find it at this site: <https://www.cdc.gov/flu/weekly/usmap.htm>



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**--For Influenza-Like Illness (ILI)**

**High ILI Activity (12 states):** Alaska, Arizona, Georgia, Kansas, Kentucky, Missouri, Nebraska, New Jersey, New Mexico, South Carolina, Virginia and Wyoming

**Moderate ILI Activity (13 states):** Arkansas, California, Hawaii, Indiana, Massachusetts, Michigan, Minnesota, New York, North Carolina, Pennsylvania, Texas, Vermont and Wisconsin

**Low Activity (New York City and 14 states):** Alabama, Colorado, Connecticut, Illinois, Iowa, Louisiana, Maryland, Mississippi, Oklahoma, Oregon, Rhode Island, South Dakota, Utah and West Virginia

**Minimal Activity (11 states):** Delaware, Florida, Idaho, Maine, Montana, Nevada, New Hampshire, North Dakota, Ohio, Tennessee and Washington

**Insufficient Data to Calculate:** Washington D.C., Puerto Rico

**--For Flu (positive Flu tests)**

**Widespread Activity (Puerto Rico and 26 states):** Alaska, Arizona, California, Colorado, Connecticut, Delaware, Florida, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Rhode Island, South Carolina, Virginia, Washington, Wisconsin and Wyoming

**Regional Activity (Guam and 18 states):** Alabama, Arkansas, Georgia, Idaho, Illinois, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, New Mexico, North Carolina, North Dakota, Pennsylvania, South Dakota, Tennessee and Utah

**Local Activity (Washington D.C. and 5 states):** Hawaii, Nevada, Oregon, Texas and West Virginia

**Sporadic Activity (1 state):** Vermont

**No Activity:** U.S. Virgin Islands

**--Other Data:**

**Hospitalizations from Flu** since Oct. 1, 2017 have had a cumulative rate of 89.9 per 100,000. The cumulative and each age group again reported significantly higher rates than those of the previous week and higher than the same point in the "Severe" 2014-15 Flu season. Specifically, those 65 years and older with 386.2 per 100,000 (370.6/100,000 last week); ages 50-64 at 97.3 per 100,000 (93.6/100,000); and ages 0-4 at 64.9 per 100,000 (62.5/100,000). The percentage of pregnant women from the females of childbearing age group (15-44) who were hospitalized were again at 30%, while it had been around 25% in previous weeks.

**Death rates for pneumonia & influenza in adults** decreased again to 8.5% (8.8% last week) but remained above the epidemic threshold of 7.4%. Note: death reports often aren't submitted for data purposes in the same time frame as Flu and ILI cases are, so they lag behind most other Flu reporting. These numbers are from Week #8, ending 2/24/18.

**There were 9 more pediatric deaths from Flu** reported in Week #10, for a total of 128 for this Flu season.

**--Flu in Canada and Europe for Week #10:**

According to the Public Health Agency of Canada (PHAC), although Flu activity remained elevated in many areas, all Flu indicators decreased compared to last week. Influenza B cases continue to be larger than those of Influenza A. The majority of the diagnosed flu cases, hospitalizations, and deaths remained in those 65 years and older.

**For more info see:** <https://www.canada.ca/en/public-health/services/diseases/flu-influenza.html>

According to the European Center for Disease Prevention & Control (ECDC), Flu remains widespread in the Region, although some eastern European countries have just begun reporting increased activity. Influenza B & A Flus are co-circulating with more B than A found. For those tested for Flu at PCPs, 50% tested positive. **For more info see:** <http://www.flunewseurope.org/>

## First Responder Specific Information

There are many websites that may be helpful in planning and managing seasonal flu within First Responder organizations. There is a list of various links in a document called *Seasonal Influenza Resources*.

Two of those websites are included here: <https://www.cdc.gov/flu/weekly/usmap.htm> and <http://www.healthmap.org/en/>

- First Responders should be vaccinated for Flu each season to prevent getting flu themselves, taking it home to family members or transmitting it to patients in their care. Family members and patients may be at increased risk of complications from flu.
- Perform proper hand hygiene including frequent handwashing and the use of hand sanitizers in general, and particularly when providing patient care or after touching surfaces.
- Masks (N95 or 100) should be used in the presence of patients with cough and/or fever.
- Care should be taken to avoid touching their own face and mucous membranes (eyes, mouth, nose) since the flu virus is frequently found on surfaces such as door knobs, cot and equipment handles, phones, as well as clothing, bed clothes, etc.
- Report signs/symptoms of flu to your physician or other appropriate provider for early assessment and care.
- Cough and sneeze into your sleeve, if a tissue is not available, and not onto your hands.
- Stay away from others if you are sick.
- Be aware of your exposure risk and history. Take extra precautions or avoid those with immunocompromise, when possible, if there you have a known or likely exposure.
- Antivirals may be indicated for the treatment of flu, particularly for those in high risk groups, those who are hospitalized or have severe, complicated or progressing flu. Those that present with 48 hours of the onset of symptoms may also be given antivirals, based on PCP judgement but make sure the practitioner is aware of their First Responder Role. See <https://www.cdc.gov/flu/antivirals/whatyoushould.htm>
- A study was published by the Institute for Clinical Evaluative Sciences in *NEJM*; see details below

## Flu infection may raise risk of heart attack, particularly in first 7 days



**Study confirms importance of flu vaccination for people at risk of heart disease.**

Researchers looked at nearly 20,000 Ontario adult cases of lab-confirmed influenza (2009-2014) and then identified 332 patients who were hospitalized for a heart attack within one year of flu diagnosis.



For this population, the risk of heart attack was **6 times higher** within the first week of a flu diagnosis.

Factors that may be associated with more risk:

- being age 65 and older
- infection with influenza B
- no previous heart attack

**The researchers say that people at risk of heart disease should take care to prevent flu through measures including handwashing and vaccination, and should not delay medical evaluation for heart symptoms, particularly in the first week of an acute respiratory infection.**

Kwong JC et al. *NEJM*. 2018.

**Institute for Clinical Evaluative Sciences**  
ices.on.ca

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Image courtesy of ICES/PHO

**FirstWatch Solutions, Inc** 1930 Palomar Point Way, Suite 101, Carlsbad, CA 92008  
[www.firstwatch.net](http://www.firstwatch.net)



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“The researchers add that patients should not delay medical evaluation for heart symptoms particularly within the first week of an acute respiratory infection.” (Lisa Schnirring, News Editor: *CIDRAP News* ;Jan 25, 2018)

For more information on the Influenza and Heart Attack Study, please see the link below.

[https://www.eurekalert.org/pub\\_releases/2018-01/pho-rci011818.php](https://www.eurekalert.org/pub_releases/2018-01/pho-rci011818.php)

**Note:** Flu is much more worrisome for the very young and the very old. Signs of ILI in this group requires careful assessment to rule out complications and these groups are much more likely to be transported to assure adequate care. Since A H3N2 is, so far, this year’s dominant flu, young children and those over 65 are typically at greater risk for complications, hospitalization, and even death, although hospitalizations were higher for those aged 50-64 than for aged 0-4. Consideration should be given to perhaps monitoring these groups more closely, with inclination for more comprehensive assessment and transport for further evaluation, when presented with possible flu and any signs of complications.

Complications of flu, sometimes requiring hospitalization and even leading to death, tend to occur after the person has begun to get better from the flu and then appears to relapse. EMS personnel may want to look more closely at those patients when the call is not about the initial signs and symptoms of flu, but about increasing or different signs that have appeared.

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