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Influenza (FLU) Update for Week #13
Week Ending 3-31-18

Although Flu and ILI was still elevated above the national baseline, they each continued to decrease last week. Week #13 was the seventh week with decreases in FLU/ILI indicators. The peak of the season occurred during Week #5, ending 2/3/18. For the first time since Flu season ramped up, the adult death rates from pneumonia and flu fell below the epidemic threshold.

On average for the past five Flu seasons, ILI remained at/above the national baseline for 16 weeks; 20 weeks was the longest. **This is the 19th week this Flu season, that ILI has been at/above baseline, which correlates with the highly active season experienced**. Flu and ILI activity is likely to remain elevated well into April and the CDC announced it may continue into May.

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 occurred occasionally, which correlated with CDC reports of continued decreased activity.

For the most recently reported week ending March 31, 2018, the CDC reported:

--ILI visits to clinics and other non-hospital facilities decreased again but remained above the baseline at 2.4% (was 2.5% last week); the baseline is 2.2%. Seven (7) out of 10 Regions reported ILI at or above their region-specific baselines with 39 of 54 jurisdictions again reporting "ELEVATED". Region 2 (New Jersey, New York, Puerto Rico, & the Virgin Islands), Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, & Texas) and Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah & Wyoming) were listed as "NORMAL".

--Flu cases (documented by positive Flu tests) decreased again but remained elevated with widespread flu reported in 11 states, down from 16 states last week; Guam, Puerto Rico and 26 states had regional activity. Clinical lab testing for influenza was positive for Flu in 15.4% of the total tests (compared with 14.7% last week). There may be occasional slight upticks, like this on, but a decreasing trend should continue.

--Influenza B remained the dominant Flu type with 60.4% of the positive flu tests reported (57.8% last week). The remainder of the positive Flu tests were Influenza A at 39.6% (42.6% last week), with the subtype H3N2 64.0% of the time (68.7% last week) and 36.0% (26.0% last week) as A (H1N1)pdm09.

--Vaccine Coverage: Using reported data from Nov 2, 2017 through Feb 3, 2018, the CDC published an early vaccine effectiveness report on Feb 16, indicating that the 2017-2018 Seasonal Flu vaccine reduced the risk of having to go to a health care provider for Flu by 36% overall. Specific vaccine effectiveness (VE) breaks down as follows: H3N2 was 25%; H1N1 was 67%; and for the circulating B viruses was 42%. A complete vaccine effectiveness report, using all the data from this season, will be published in September, 2018.

With several more weeks of elevated Flu activity expected, it is still recommended that anyone who has not received flu vaccine this season, and without contraindications, get vaccinated ASAP. This is recommended since even it if 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 (2 states): Alaska and Virginia

Moderate ILI Activity (8 states): Arizona, Kentucky, Michigan, Nebraska, North Carolina, South Carolina, South Dakota, and Wyoming

Low Activity (New York City & 12 states): California, Georgia, Indiana, Kansas, Massachusetts, Minnesota, New Jersey, New Mexico, Oregon, Pennsylvania, Vermont and West Virginia

Minimal Activity (Washington D.C., Puerto Rico & 28 states): Alabama, Arkansas, Colorado, Connecticut, Delaware, Florida, Hawaii, Idaho, Illinois, Iowa, Louisiana, Maine, Maryland, Mississippi, Missouri, Montana, Nevada, New Hampshire, New York, North Dakota, Ohio, Oklahoma, Rhode Island, Tennessee, Texas, Utah, Washington, and Wisconsin

--For Flu (positive Flu tests)

Widespread Activity (11 states): California, Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New York, Ohio, Rhode Island, Virginia and Wisconsin

Regional Activity (Guam, Puerto Rico & 26 states): Alaska, Arizona, Colorado, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Michigan, Missouri, Montana, Nebraska, New Jersey, North Carolina, North Dakota, Oklahoma, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Washington and Wyoming

Local Activity (Washington D.C., & 10 states): Arkansas, Georgia, Hawaii, Louisiana, Minnesota, Nevada, New Mexico, Oregon, Texas and West Virginia

Sporadic Activity (U.S. Virgin Islands & 3 states): Alabama, Mississippi and Tenness

--Other Data:

Hospitalizations from Flu since Oct. 1, 2017 have had a cumulative rate of 99.9 per 100,000. The cumulative and each age group again reported 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 429.4 per 100,000 (412.6 /100,000 last week); ages 50-64 at 108.7 per 100,000 (104.2/100,000); and ages 0-4 at 71.2 per 100,000 (68.7/100,000). The percentage of pregnant women from the females of childbearing age group (15-44) who were hospitalized were again at/near 30% (30.4%), another slight increase after being around 25% for the peak weeks of the flu season.

Death rates for pneumonia & influenza in adults decreased again to 7.1% (7.7% last week) which, for the first time during this active flu season, fell below the epidemic threshold of 7.3%. 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 #11, ending 3/17/18.

There were 5 more pediatric deaths from Flu reported in Week #13, for a total of 142 for this Flu season.

--Flu in Canada and Europe for Week #13:

According to the Public Health Agency of Canada (PHAC), influenza activity remained elevated in many areas although it peaked in mid-February. Positive tests for Flu are decreasing steadily. 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

The European Center for Disease Prevention & Control (ECDC) published that all countries reported low or medium activity for respiratory infections. Flu viruses circulated in the Region; lab tests from PCPs were positive for Flu 35%of the time. A and B Flus were co-circulating with more B than A. A and B Flus were found in those admitted to ICUs with the majority of severe cases due to Influenza type B and in those 15 years and older.
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 Frist 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

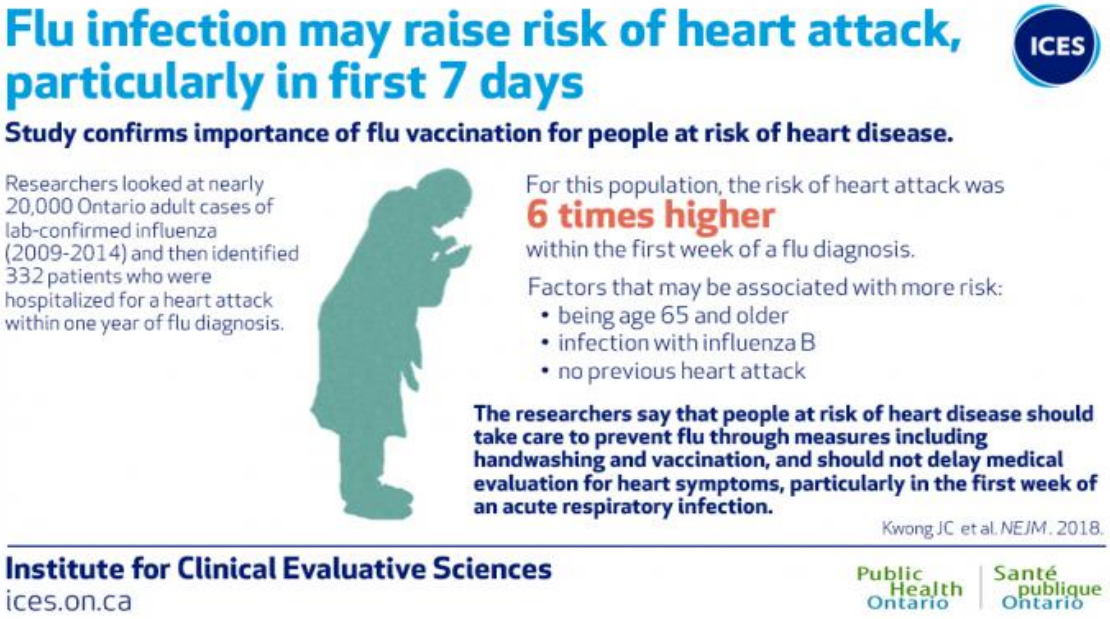

Image courtesy of ICES/PHO

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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-rcl011818.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.