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Influenza (FLU) Update for Week #01
Week Ending 1-6-18

The CDC reported that **influenza** (**Flu**) activity, including diagnosed flu as well as **Influenza-Like-Illness** (**ILI**), increased again and all states reported widespread activity except for Hawaii.

The flu and ILI data reported so far matches up with data points from the 2014-15 season which had high severity. The CDC also suggested that it is likely that the peak of the flu season has or soon will occur but flu will probably continue for several more weeks.

The dominating flu subtype continued to be A H3N2, typically a more severe subtype of flu with a possibility of increased complications.

Although the highest risk for complications & hospitalizations is usually in those 65 years or older and in younger children, there have also been more cases seen in those at high risk for flu complications, and other age groups as well.

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

FirstWatch **RIN** (**Regional Influenza Network**) Alerts continued to increase during Week #1, correlating with CDC ILI and Flu reports.

For the most recently reported week ending January 6, 2018, the CDC reported:

-- Influenza-like illness visits to clinics & other non-hospital facilities remained elevated at 5.8% (was also 5.8% last week) and above the national baseline of 2.2% for 7thth week in a row. All 10 regions reported ILI at or above their region-specific baselines again.

-- Flu cases (documented by positive flu tests on respiratory specimens) remained elevated, with widespread flu reported in 49 states, an increase of three states since last week. Clinical lab testing for influenza was positive for flu in just over a quarter of the total tests (24.7%, compared with 25.5% last week).

-- Influenza A remained the dominant flu for 83.6% of the flu tests reported (84.6% last week), with H3N2 the subtype 88.6% (87% last week) and 11.4% (11% last week) as A (H1N1)pdm09 viruses; subtyping was not done on 5.4%. The rest of the tests showed 16.4% (15.1% l.w.) tested as Influenza B viruses, with 48.5% (58.3% l.w.) of Yamagata lineage and 4.14% (6.5% l.w.) Victoria lineage; 47.4% did not have lineage testing done.

This shows a slight decrease in Influenza A cases and more Influenza B cases. Typically, Influenza B viruses are less severe and occur more in the latter part of the flu season.

Most of the flu viruses collected this season are well matched to the seasonal vaccine offered.

The majority of the circulating flu viruses are susceptible to the antiviral medications oseltamivir, zanamivir, and peramivir, although some resistance was found in rare cases of both circulating influenza A subtypes. See **https://www.cdc.gov/flu/weekly/** for specific resistances.

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: (**New York City & 26 states**): Alabama, Arizona, Arkansas, California, Colorado, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, South Carolina, Texas, Virginia, Washington and West Virginia, and Wyoming

Moderate ILI Activity: (**Puerto Rico & 10 states**): Idaho, Massachusetts, Michigan, New York, North Carolina, Pennsylvania, Rhode Island, South Dakota, Tennessee, and Wisconsin

Low Activity: (**Washington D.C. & 6 states):** Alaska, Hawaii, Iowa, Maryland, Minnesota, and Vermont

Minimal Activity (**8 states**)**:** Connecticut, Delaware, Florida, Maine, Montana, New Hampshire, North Dakota, and Utah

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

Widespread Activity (**49 states**)**:** Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming
Regional Activity (**Guam and 1 state**)**:** Hawaii,
Local Activity: Washington D.C.
Sporadic Activity: US Virgin Islands
Did Not Report: Puerto Rico

-- Other Data:

Hospitalizations from Flu went up sharply with a rate of 22.7 per 100,000 per population, compared to 13.7 last week. Those 65 years and older had much higher rates (98/100,000); ages 50-64 at 24/100,000 and ages 0-4 @ 16/100,000. Of the 80 women of childbearing age (ages 14-44) who were hospitalized, 30% were pregnant.

Death rates for pneumonia and influenza in adults were at the epidemic threshold but death reports often aren't reported for data purposes in the same time frame as flu and ILI cases are.

There were seven more pediatric deaths from flu reported this week, for a total of 20 for this flu season.

-- Flu in Canada and Europe::

According to the Public Health Agency of Canada **(PHAC)**, throughout Canada there was an increase in flu cases for Week 1 (week ending 1-6-18) resulting in high flu activity. This is in the higher range of expected levels for this time period. H3N2 remained the dominant subtype but Influenza B cases are increasing and are much earlier than usual. The number of influenza B cases are substantially larger than in previous years. Most of the diagnosed flu cases, hospitalizations, and deaths have remained in those 65 years and older.

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

According to the European Center for Disease Prevention & Control **(ECDC)**, flu continued to increase in Western, Northern, and Southern Europe for Week #1 (1-7 January 2018). Influenza A & Influenza B viruses are co-circulating, with mixed patterns detected amongst countries in the Region. For those being tested who presented with ILI or **ARI** (**acute respiratory infection**), at PCPs, 42% tested positive for flu

(compared to 44% last week). EuroMOMO data revealed excess mortality in those greater than 65 years old for Scotland, Spain, and Portugal.

For more information see: **http://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*.

Three of those websites are included here: **https://www.cdc.gov/flu/weekly/usmap.htm** & **https://flunearyou.org/#!/** 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**

Note: the 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. Consideration should be given to perhaps monitoring these two groups more closely, with consideration for more comprehensive assessment and transport for further evaluation, with a presentation of possible flu and any signs of complications.

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