

Influenza (FLU) Update for Week #52 Week Ending 12-30-17

Week #52 (ending 12-30-17) the CDC reported that **influenza (Flu)** activity, including diagnosed flu as well as **Influenza-Like-Illness (ILI)** sharply increased for this week. The dominating flu subtype continued to be A H3N2. This continued the trend of an early flu season with a typically more severe subtype of flu dominating and the 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 been more cases seen in 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 this week, correlating with ILI and Flu reports.

For the most recently reported week ending December 30, 2017, the CDC reported:

- Influenza-like illness visits to clinics & other non-hospital facilities remained elevated at 5.8% (was 5% last week) and above the national baseline of 2.2% for 6th 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 46 states, an increase of ten states compared to last week. Clinical lab testing for influenza was positive for flu in just over a quarter of the total tests (25.5%, compared with 22.4.% last week).
- Influenza A remained the dominant flu for 84.6% of the flu tests reported (89% last week), with H3N2 the subtype 87% (88.1% last week) and 7.7% (7.4% last week) as A (H1N1)pdm09 viruses; subtyping was not done on 5.4%. The rest of the tests showed 15.1% (11% l.w.) tested as Influenza B viruses, with 58.3% (57.1% l.w.) of Yamagata lineage and 6.5% (3.3% l.w.) Victoria lineage; 35.3% did not have lineage testing done.

This shows a slight decrease in Influenza A viruses and more Influenza B. Typically, Influenza B viruses are less severe and occur more towards the Spring.

All but the Victoria lineage 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>

-- For Influenza-like illness (ILI):

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

Moderate ILI Activity: (Puerto Rico & 9 states): Alaska, Colorado, Hawaii, Iowa, Massachusetts, North Carolina, Pennsylvania, Tennessee, and Wyoming

Low Activity: (Washington D.C. & 6 states): Florida, Minnesota, New York, South Dakota, Utah, and Wisconsin

Minimal Activity (9 states): Connecticut, Delaware, Idaho, Maine, Montana, New Hampshire, North Dakota, Rhode Island, and Vermont

-- For Flu (positive flu tests):

Widespread Activity (46 states): Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, 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 (4 states): Hawaii, Maine, New Hampshire, New Jersey

Local Activity: Washington D.C.

Sporadic Activity: None Reported

Did Not Report: Guam and US Virgin Islands

-- Other Data:

Hospitalizations from Flu went up sharply with a rate of 13.7 per 100,000 per population, compared to 8.7 last week. Those 65 years and older have much higher rates although other groups have been hospitalized, including children 0-4 years and pregnant women.

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

There was one pediatric death attributed to flu this week, with a total of 13 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 Weeks 51 and 52 (12/17/17 – 12/30/17) but in expected levels. H3N2 remained the dominant subtype but there were more Influenza B cases compared to other years at this point in the season. Most of the diagnosed flu cases, hospitalizations, and deaths have been 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 increased in Western, Northern, and Southern Europe for week 52. Influenza A & Influenza B viruses are co-circulating, with mixed patterns detected. For those being tested, at PCPs, 44% tested positive for flu (compared to 38% last week). 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 First 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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