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Influenza (FLU) Update for Week #45 -- Week Ending 11-9-19

The CDC reported that seasonal flu activity increased over the previous week with more states reporting increased levels of Flu and ILI. From a national perspective, ILI remains below baseline but some areas, particularly in the South, are seeing earlier-than-typically-expected increased levels. Influenza-like illness (ILI) is defined as a temperature at/above 100° F [37.8° C] and cough and/or sore throat without a known cause other than flu. A Flu case, that is included in CDC data, indicates a positive flu test read by either a Clinical or Public Health Lab.

Diagnosed Flu and ILI are expected to increase in the next few weeks and months. **It is recommended by public health officials and health care providers that for all those 6 months or older, flu vaccinations should be completed ASAP, unless they have a valid medical contraindication.** Most will receive a vaccination that covers 4 strains of influenza.

The severity of Flu & ILI for this season, as well as which viruses will ultimately dominate, is still too early to identify. As more data is collected by the CDC further into the season, severity and predominating viruses, as well as other report components, will be included in this Summary.

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

FirstWatch RIN (Reginal Influenza Network) Alerts occurred more often than in previous weeks.

For the most recently reported week ending November 9, 2019, the CDC reported:

--ILI visits to clinics and other non-hospital facilities was at 2.3%, a little higher than last week's 2.1% and just below the national baseline of 2.4%, with a regional range between 1.2% and 4.2% for Week #45. Four (4) of 10 Regions reported that outpatient visits for ILI were at/above their own regional baselines including **Region 4** (AL, FL, GA, KY, MS, NC, SC, & TN), **Region 6** (AR, LA, NM, OK & TX), **Region 7** (IA, KS, MO & NE) and **Region 9** (AZ, CA, HI, & NV).

--Flu case data (documented by positive Flu tests from Clinical Labs) was unavailable but only 10 states reported Regional or Widespread activity.

--In these early weeks of flu reporting, with limited numbers of flu cases, determining the most common circulating flu strain(s) may vary from report to report and certainly from region to region. For the previous week, viewed from a national standpoint, Influenza B/Victoria viruses were reported more frequently, but Influenza A(H3N2) and Influenza A(H1N1)pdm09 viruses were also circulating widely. The predominant strain varied by



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region and age. To access specific state and regional information on circulating flu viruses, please see: <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>

--Technical issues within the reporting platform prevented the reporting of clinical lab results so only public lab data is available for this week. **Looking at this data which has a limited number of specimens (844 tested with 178 positive for flu), Influenza B was detected at 59.0% and Influenza A at 41.0%.** Further breakdown revealed that H1N1 is the dominant A with 61.5% and H3N2 at 38.5%; Influenza B showed 93% Victoria lineage and 7% Yamagata.

--Vaccine Coverage: will be determined later in the season when enough data has been collected.

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 (1 state): Louisiana

Moderate ILI Activity (Puerto Rico & 5 states): Alabama, Georgia, Mississippi, South Carolina, & Texas

Low Activity (9 states): Arizona, Arkansas, Connecticut, Missouri, Nevada, New Mexico, Oklahoma, Tennessee, & Virginia

Minimal Activity (Washington D.C., New York City, & 35 states): Alaska, California, Colorado, Delaware, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming

Insufficient Data to Calculate: U.S. Virgin Islands

--For Flu (positive Flu tests)

Widespread Activity (3 states): California, Louisiana & Maryland

Regional Activity (7 states): Alabama, Florida, Indiana, Nevada, New Hampshire, Tennessee, & Texas

Local Activity (Puerto Rico & 20 states): Arizona, Colorado, Connecticut, Georgia, Hawaii, Illinois, Iowa, Kentucky, Massachusetts, Mississippi, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, Virginia, and Washington

Sporadic Activity (U.S. Virgin Islands, Washington D.C., & 19 states): Alaska, Arkansas, Delaware, Idaho, Kansas, Maine, Michigan, Minnesota, Missouri, Montana,



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Nebraska, Ohio, Pennsylvania, South Dakota, Utah, Vermont, West Virginia, Wisconsin and Wyoming

No Activity: (1 state): Rhode Island

No Report: Guam

--Other Data:

Hospitalizations from Flu: determined later in the flu season when enough data has been collected.

Death rates for pneumonia & influenza in adults: As of data from 11/14/19, 4.9% of adult deaths during week #44 (ending 11/2) were associated with influenza and pneumonia which is below the epidemic threshold of 6.0% for that week.

Two (2) pediatric deaths associated with influenza were reported during week #45.

One occurred during Week #44 (ending 11/2/19), making a total of three (3) flu-associated pediatric deaths for the 2019-20 Flu Season. One was from Week #7 of the 2018-19 Flu Season, increasing the total pedi deaths for the 2018-19 Season to 143.

International:

Canada:

Flu in Canada for Week #45 (10/27 - 11/9, 2019):

According to the Public Health Agency of Canada (PHAC), influenza activity remained at interseasonal levels nationally. Compared to the previous week (#44), 27% of the regions had an increase in activity and 62% reported the same level of activity. Influenza A(H3N2) continued to be the most common flu virus circulating.

Localized Activity: in 2 Regions: New Brunswick (1) & Alberta (1)

Sporadic Activity: in 20 Regions: Newfoundland & Labrador (2), Prince Edward Island (1), New Brunswick (1), Ontario (5), Saskatchewan (1), Alberta (4), British Columbia (5), Northwest Territory (1)

No Data Reported: in 3 Regions: Quebec, Manitoba, & Nunavut

PHAC Flu Watch Summary & Influenza/ILI Activity Map for Week #45 see:

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/fluwatch/2019-2020/week-45-november-3-9-2019.html>

PHAC Home Page for Surveillance on Flu: <http://www.phac-aspc.gc.ca/fluwatch/>

Public Health Agency of Canada (PHAC) Home Page for Information on Flu:

<https://www.canada.ca/en/public-health/services/diseases/flu-influenza.html>



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PHAC Provides Flu Watch Summary & Link to Full Influenza Reports Past & Present:

<https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html>

PHAC Interactive Map for Flu Activity Across Canada:

<https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/map-activity-levels.html>

PHAC Site that Explains How to Become a Canadian Flu Watcher:

<https://www.canada.ca/en/public-health/services/diseases/flu-influenza/fluwatcher.html>

Europe:

European Center for Disease Prevention & Control - Flu for Week #45 (11/4 – 11/10, 2019):

Influenza activity was low throughout Europe. Flu viruses A & B, with higher A, were found sporadically in specimens from those with respiratory illness seeking medical care. Data from 23 countries/regions reported mortality from all causes are at expected levels for this time of year.

For more info see: <http://flunewseurope.org/>

Public Health England Flu Summary:

<https://www.gov.uk/government/statistics/weekly-national-flu-reports>

Global:

World Health Organization (WHO) Weekly Flu Summary (FluNet):

http://www.who.int/influenza/gisrs_laboratory/flunet/en/

WHO Global Flu Overview with Map and Text:

https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

Global Epidemiology Reports:

WHO Collaborating Centers for Flu in [Australia](#), [Japan](#), & the [United Kingdom](#)



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First Responder Specific Information

There are many websites that may be helpful in planning and managing seasonal flu within First Responder organizations. A few of those websites are included here:

NIOSH on Flu for Employers/Employees:

<https://www.cdc.gov/niosh/topics/flu/>

NIOSH Listing on Absenteeism in the Workplace throughout the US:

<https://www.cdc.gov/niosh/topics/absences/default.html>

Protection from Flu:

<https://www.cdc.gov/flu/protect/habits/index.htm>

World Map Showing Flu & Other Infectious Diseases:

<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 with soap and water, 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. Procedure or surgical masks can also be used but may not provide the same level of protection.
- 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. Once picked up on the hands from touching inanimate objects or from the secretions of a patient, it can transmit the flu (or any respiratory infection virus) via the mucous membranes of the face and head.
- Report signs/symptoms of flu to your physician or other appropriate provider for early assessment and care. Signs & symptoms suggest a period of contagiousness and out your patients and co-workers at risk.
- 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.



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- Be aware of your exposure risk and history. Take extra precautions or avoid those with immunocompromise, when possible, if 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>
- 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 need to be transported to assure adequate care. Young children and those over 65 are typically at greater risk for complications, hospitalization, and even death. Hospitalization rates may also be elevated in those aged 50-64. Consideration should perhaps be given to 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.

- 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



Image courtesy of ICES/PHO “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