

International influenza update

There are two main seasonal patterns of influenza virus circulation associated with either a tropical climate or a temperate climate. Tropical climate countries tend to have consistent levels of influenza years round with smaller peaks that might occur in the rainy season, whereas temperate climate countries, like the U.S., tend to see a distinct influenza season with a sharp peak of activity typically occurring during the winter months.

Temperate Climate Countries

- In the temperate zones of the southern hemisphere, influenza activity continued to decrease in most countries.
- Influenza activity in Australia started earlier than previous season. For the most recent reporting period, ILI and weekly lab-confirmed notifications were lower than average for this time of year. Influenza A(H3N2) and influenza B co-circulated throughout the season.

Tropical Climate Countries

- In the Caribbean, tropical South American countries, tropical Africa, Southern Asia, and South East Asia influenza activity was low overall. In Central American countries, influenza activity slightly increased across the sub-region.
- During the most recent reporting period of August 19 – September 01, 4097 influenza positive specimens were tested worldwide. 57.4% were influenza A, of which 64.2% were subtyped as H3N2 and the remaining 35.8% were H1N1pdm09. Of the characterized B viruses, 84.6% belonged to the B-Victoria lineage, while the remaining 15.4% belonged to the B-Yamagata lineage.

Influenza in the US

- In the temperate zone of the northern hemisphere, including the US, influenza activity remains at inter-seasonal levels.
- Abnormal presentation of influenza with parotitis and/or rash can occur.
- Maine will resume weekly reporting in October.

Non-seasonal influenza

- As of June 2019, 861 H5N1 human infections were reported by countries world-wide. There has been only one additional case since September 2018.
- No new confirmed cases of H7N9 have been reported. However, H7N9 may continue to be a risk in China, as there have been no publicly available reports from animal health authorities in China in recent months. Most cases are exposed through contact with infected poultry or contaminated environments. There is no sustained human to human transmission at this time.
- 1 variant influenza virus infection has been reported so far in the United States during 2019. This was an H1N1v reported by Michigan reported in late May. This was in an adult over 65 years old with underlying medical conditions. The patient was admitted to the hospital and recovered fully. The investigation did not identify a source of exposure. No on-going human-to-human transmission has been identified.
- Maine CDC has not seen any variant or novel influenza (influenza not currently circulating in humans) since 2011 but the risk remains and providers should ask about agricultural exposures.
- No highly-pathogenic avian influenza (HPAI) has been detected in the US since March 2017.

Non-influenza respiratory viruses

- MERS-CoV continues to circulate in the Arab Peninsula – should be considered in the differential for patients with relevant clinical information and travel to a potentially affected area. Globally, countries have reported 2,464 laboratory-confirmed cases of infection with MERS-CoV including at least 850 related deaths.
- Adenovirus, parainfluenza, RSV, rhinovirus and other viruses may co-circulate with influenza. Maine is continuing a project to help monitor what the current circulating viruses are through the National Respiratory and Enteric Virus Surveillance System (<https://www.cdc.gov/surveillance/nrevss/>).
- HETL can test for many of the circulating non-influenza respiratory viruses. For more information see www.mainepublichealth.gov/lab.

Additional Notes

- Maine CDC's annual long-term care mailing which includes information on norovirus and influenza went out the week of September 23, 2019.
- As a reminder, Maine CDC's infectious disease general inbox disease.reporting@maine.gov and the influenza inbox influenza.dhhs@maine.gov are not confidential and personal information should **not** be sent.
- Please make sure all healthcare providers are signed up for Maine's Health Alert Network (HAN). If you are not signed up, please visit www.mainehan.org to register. HAN's are now publicly available on Maine CDC's homepage (<https://www.maine.gov/dhhs/mecdc/>) under the Health Advisories section.
- Maine CDC has a number of new health education posters for the 2019-2020 influenza season. These posters can be ordered at www.maine.gov/dhhs/order and include:
 - A series of flu prevention posters for specific groups: pregnant women, seniors, children, and everyone
 - A series of three flu vaccine myth-busting posters

Questions

Q: What is the timeline for releasing the trivalent vaccine for people over 65?

A: Although there was a delay in Fluzone High-Dose influenza vaccine coming to the market, it is now available. The vaccine has been shipping to distributors and facilities that order directly from the manufacturer for about a month. The wait was likely due to the delay in vaccine strain selection in order to get a better match for the 2019-2020 season.

Q: Should facilities send the first ten influenza A and first ten influenza B positive samples to HETL or just the first ten regardless of type?

A: Facilities should send their first ten positive influenza specimens to the Health and Environmental Testing Laboratory (HETL) regardless of influenza type. If you see changes in type or illness presentation throughout the flu season, please send additional samples. At least 5 influenza B samples should be sent throughout the season and because influenza B tends to circulate later than influenza A, these may not be in addition to the first 10.