

HUMAN EMERGING RESPIRATORY PATHOGENS BULLETIN

MONTHLY SITUATIONAL ANALYSIS OF EMERGING RESPIRATORY DISEASES AFFECTING HUMANS

Issue No 47 November 2020

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UPDATE ON HUMAN EMERGING RESPIRATORY PATHOGEN PUBLIC HEALTH EVENTS (AS OF NOVEMBER 30, 2020)

COVID-19 UPDATE

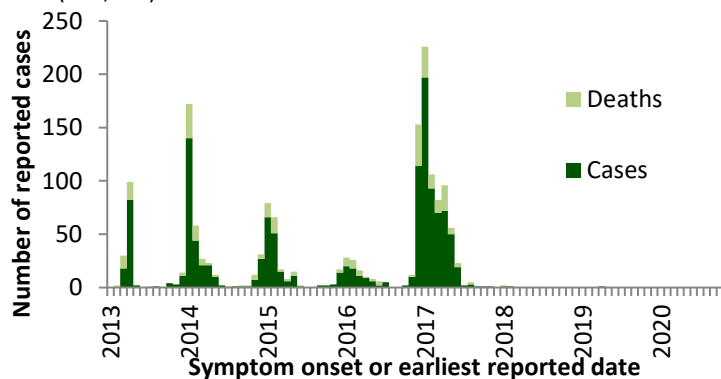
On December 31, 2019, cases of a pneumonia of unknown etiology were reported in Wuhan, China. These cases have since been determined to be due to a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes coronavirus disease 2019 (COVID-19). On January 30, 2020, the World Health Organization (WHO) first declared the outbreak a Public Health Emergency of International Concern (PHEIC).

As of November 30, 2020, 378,139 COVID-19 cases and 12,130 deaths have been reported in Canada.

The Public Health Agency of Canada is monitoring the situation closely. For the most up-to-date information, please visit: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>

AVIAN INFLUENZA UPDATES

Figure 1. Temporal distribution of human infection with avian influenza A(H7N9), globally, by month and year, January 1, 2013 to November 30, 2020 (n=1,568).



Note: Graph was prepared by the Centre for Immunization and Respiratory Infectious Diseases (CIRID) using data from the latest WHO Monthly Influenza at the Human-Animal Interface Risk Assessment. This graph reflects data available through these risk assessments as of November 30, 2020.



Public Health
Agency of Canada

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publique du Canada

NOVEL INFLUENZA¹ [N CUMULATIVE CASES² (DEATHS), CFR%³]

A(H7N9)	[1,568 (615), 39%]
A(H5N1)	[880 (461), 52%]
A(H9N2)	[60 (1), 2%]
A(H5N6)	[24 (7), 29%]
A(H7N4)	[1 (0), 0%]
A(H1N2)	[2 (0), 0%]
A(H3N2)v	[436 (1), <1%]
A(H1N2)v	[27 (0), 0%]
A(H1N1)v	[26 (0), 0%]

MERS-CoV¹

Global case count	[2,554 (872), 34%]
Saudi Arabia	[2,158 (794), 37%]

¹**Date of 1st Reported Case of Human Infection:** MERS-CoV: February 2013 (retrospective case finding September 2012). A(H7N9): March 2013. A(H5N1): 1997. A(H9N2): 1998. A(H5N6): 2014. A(H7N4): February 2018. A(H3N2)v with M gene from pH1N1: 2011. A(H1N2)v: 2005. A(H1N1)v: 2005.

²**Cumulative Case Counts:** updated using data reported by the World Health Organization (avian and swine influenza, MERS CoV), and the United States Centers for Disease Control and Prevention (US CDC) (swine influenza).

³**Case Fatality Rate:** The proportion of cases that resulted in death.

AVIAN INFLUENZA A(H7N9)

No new H7N9 cases were reported to the WHO since April 2019. Two travel-related cases were reported in Canada in January 2015. Globally, 1,568 human cases of avian influenza A(H7N9), including at least 615 deaths, have been reported since 2013 (Figure 1).

AVIAN INFLUENZA A(H9N2)

On November 5, 2020, the WHO posted a situation update on a H9N2 case reported out of China. The case is a 3 year old girl from Guangdong province, with reported exposure to domestic poultry. She developed symptoms and was hospitalized on October 12, 2020, and as of October 18, 2020, no further cases were detected in her family. Globally, 60 human cases, including one death, have been reported since 1998.

Canada

AVIAN INFLUENZA A(H5N1)

On November 6, 2020, the WHO posted a situation update on a H5N1 case reported out of the Lao People's Democratic Republic (Lao PDR). The case is a 1 year old girl from Saravane province, who developed respiratory symptoms on October 13, 2020. She was hospitalized on October 16, 2020 and discharged on October 19, 2020. Out of 5 identified household contacts, one developed symptoms on October 26, 2020, and the case and all household contacts were isolated at the hospital. As of October 28, 2020, the case was reportedly still febrile. Investigations revealed the case had exposure to domestic poultry. This case is the 3rd H5N1 case reported out of Lao PDR since 2007.

SWINE INFLUENZA UPDATES

SWINE ORIGIN INFLUENZA A(H3N2)v

The most recent case of swine origin influenza A(H3N2)v was reported in July 2020 in the United States. A total of 436 cases, including one death, have been reported globally since 2011. One locally acquired case of H3N2v was reported in Canada in December 2016.

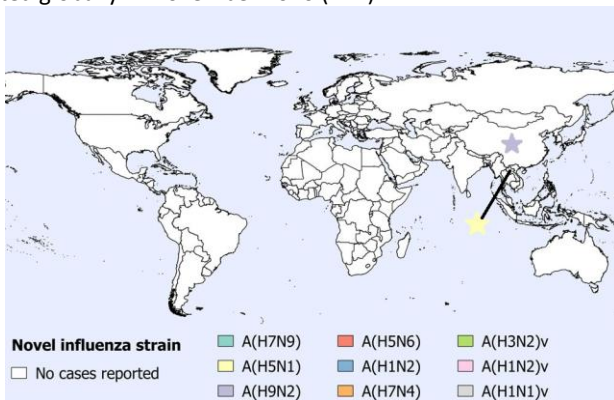
SWINE ORIGIN INFLUENZA A(H1N2)v

No new swine origin influenza A(H1N2)v cases were reported in November 2020. On October 29, 2020, the Public Health Agency of Canada (PHAC) was notified of a confirmed human case of influenza A(H1N2) variant virus, marking the 27th influenza A(H1N2)v case reported to the WHO since 2005 and the first from Canada. Epidemiologic, animal health and virological investigations are ongoing and PHAC continues to monitor the situation and provide assistance where needed.

SWINE ORIGIN INFLUENZA A(H1N1)v

The most recent case of swine origin influenza A(H1N1)v infection was detected in Germany in June 2020. This case presented with influenza-like illness after contact with pigs during a farm visit. To date, reported H1N1v infections have been associated with mild illness.

Figure 2. Spatial distribution of human cases of avian and swine influenza reported globally in November 2020 (n=2).

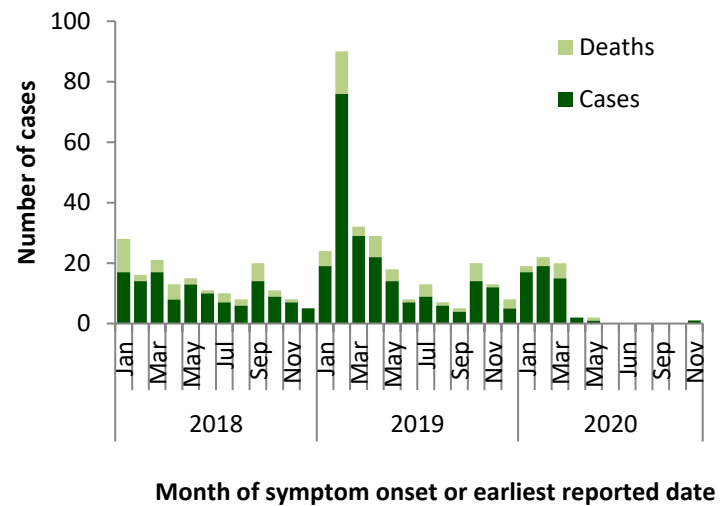


Note: Map was prepared by the Centre for Immunization and Respiratory Infectious Diseases (CIRID) using data from the latest WHO Monthly Influenza at the Human-Animal Interface Risk Assessment. This map reflects data available through these risk assessments as of November 30, 2020.

MIDDLE EAST RESPIRATORY SYNDROME CORONAVIRUS (MERS-COV) UPDATE

One new case of MERS-CoV was reported in November 2020, from the Kingdom of Saudi Arabia (Figure 3). The case is a 51 year old man from Riyadh, Riyadh region. He was classified as a primary case with reported camel contact. This is the first case reported worldwide since a case was retroactively reported in May 2020. A total of 2,554 laboratory-confirmed cases of MERS-CoV, including 872 deaths, have been reported globally since 2012 by the WHO. No cases have been reported in Canada.

Figure 3. Temporal distribution of human cases of MERS-CoV reported to the WHO, globally, by month and year, January 1, 2018 to November 30, 2020 (n=399).



Note: Graph was prepared by the Centre for Immunization and Respiratory Infectious Diseases (CIRID) using data from the WHO Disease Outbreak News and Saudi Arabia's Ministry of Health. This graph reflects data available as of November 30, 2020.