



# HUMAN EMERGING RESPIRATORY PATHOGENS BULLETIN

## MONTHLY SITUATIONAL ANALYSIS OF EMERGING RESPIRATORY DISEASES AFFECTING HUMANS

Issue No 49 January 2021

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### UPDATE ON HUMAN EMERGING RESPIRATORY PATHOGEN PUBLIC HEALTH EVENTS (AS OF JANUARY 31, 2021)

NOVEL INFLUENZA <sup>1</sup>	[N CUMULATIVE CASES <sup>2</sup> (DEATHS), CFR% <sup>3</sup> ]
A(H7N9)	[1,568 (615), 39%]
A(H5N1)	[880 (461), 52%]
A(H9N2)	[68 (1), 2%]
A(H5N6)	[27 (8), 30%]
A(H7N4)	[1 (0), 0%]
A(H1N2)	[2 (0), 0%]
A(H3N2)v	[437 (1), <1%]
A(H1N2)v	[28 (0), 0%]
A(H1N1)v	[29 (0), 0%]

### MERS-CoV<sup>1</sup>

Global case count	[2,557 (872), 34%]
Saudi Arabia	[2,161 (794), 37%]

<sup>1</sup>**Date of 1<sup>st</sup> 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.

<sup>2</sup>**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).

<sup>3</sup>**Case Fatality Rate:** The proportion of cases that resulted in death.

### 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). On March 11, 2020, the WHO characterized the outbreak as a global pandemic. The WHO Director-General convened the International Health Regulations (IHR) Emergency Committee (EC) on COVID-19 five times throughout 2020, and a sixth time on January 14, 2021, continually assessing that COVID-19 constitutes a PHEIC.

As of January 31, 2021, 778,972 COVID-19 cases and 20,032 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

#### 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.

#### AVIAN INFLUENZA A(H5N6)

On January 6, 2021, China reported one H5N6 case to the WHO. The case is a 51 year old male from Chongqing, Yongchuan District. He had exposure to a live poultry market before symptom onset on December 18, 2020. The case was hospitalized on December 28, 2020 and as of January 28, 2021, was still in recovery. This case is the first H5N6 case reported in 2021. Globally, 27 cases of H5N6 have been reported since 2014.



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## AVIAN INFLUENZA A(H9N2)

China reported two separate H9N2 cases to the WHO in January 2021. The first case was a 16 month old male from Yunfu, Guangdong Province. He had exposure to poultry at a live poultry market before symptom onset on December 28, 2020. The case recovered on January 2, 2021 and no further cases were detected amongst his family. The second case was a 52 year old female from Xiamen, Fujian Province. She had exposure to poultry at a live poultry market before symptom onset on January 2, 2021. As of January 13, 2021, the case was reported recovered and no further cases were detected in her family. A total of 68 human cases of H9N2 have been reported to the WHO globally since 1998, with the two aforementioned cases reported this year.

## SWINE INFLUENZA UPDATES

### SWINE ORIGIN INFLUENZA A(H3N2)v

The United States reported one case of swine origin influenza A(H3N2)v in January 2021. The case was a child under 18 years old from Wisconsin. Investigations revealed the child lives on a farm with swine present. The case was not hospitalized, but was prescribed antiviral treatment and has since recovered. Including this one case in 2021, a total of 437 cases, including one death, has been reported globally since 2011. One locally acquired case of H3N2v was reported in Canada in December 2016.

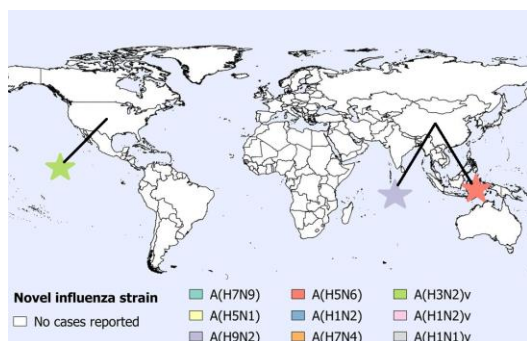
### SWINE ORIGIN INFLUENZA A(H1N2)v

The most recent case of swine origin influenza A(H1N2)v was reported in December 2020 in Brazil. A total of 28 cases, including one case from Alberta, Canada in October 2020, has been reported globally since 2005.

### SWINE ORIGIN INFLUENZA A(H1N1)v

The most recent cases of swine origin influenza A(H1N1)v were reported in December 2020, two from the Netherlands and one from China. Twenty-nine cases of influenza A(H1N1)v has been reported worldwide, with no deaths reported to date. These cases are separate from infections of the A(H1N1)pdm09 virus, which caused the 2009 pandemic.

**Figure 1.** Spatial distribution of human cases of avian and swine influenza reported globally in January 2021 (n=4).

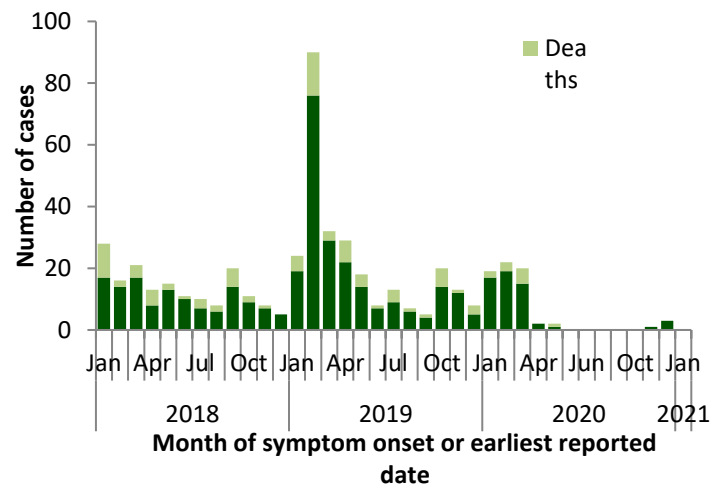


**Note:** Map was prepared by the Centre for Immunization and Respiratory Infectious Diseases (CIRID) using data from the latest WHO Monthly Influenza at the Human-Animal Interface Risk Assessment. This map reflects data available through these risk assessments as of January 31, 2021.

## MIDDLE EAST RESPIRATORY SYNDROME CORONAVIRUS (MERS-COV) UPDATE

No new MERS-CoV cases were reported in January 2021 (Figure 2). A total of 2,557 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 2.** Temporal distribution of human cases of MERS-CoV reported to the WHO, globally, by month and year, January 1, 2018 to January 31, 2021 (n=402).



**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 January 31, 2021.