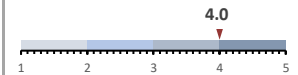


## SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

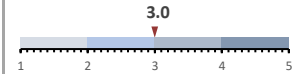
### Influenza A

- ◆ The CDC released their sequencing analysis of samples from the **Texas** human infection with influenza A(H5N1) revealing it is closely related to the viruses detected in dairy cattle (clade 2.3.4.4b, genotype B3.13) and contains one mammalian adaptation mutation (PB2-E627K)
- ◆ **Vietnam** has reported its first ever human case of influenza A(H9N2), in a 37-year-old male from **Tien Giang** province who resides by a poultry market

[Read More](#)



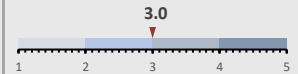
[Read More](#)



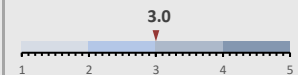
### Highly Pathogenic Avian Influenza

- ◆ **Idaho** and **Ohio** have both confirmed first detections of HPAI H5N1 in dairy herds; to date, the USDA has confirmed detections of HPAI in dairy herds in: **Texas(9)** **Kansas(3)**, **New Mexico(2)**, **Michigan(1)**, **Idaho(1)**, and **Ohio(1)**
- ◆ **USDA** researchers tested milk, nasal swabs, and blood from cows at affected dairy herds and only found clear signals of the virus replicating in the udder, indicating that the virus may be transmitted from cow to cow via milking machines or in milk droplets on dairy workers' clothing or gloves
- ◆ **Vietnam** has identified a new re-assorted H5N1 virus, that has the surface proteins from the older 2.3.2.1c clade but the internal genes from the newer 2.3.4.4b clade, in chickens and muscovy ducks; this new re-assorted HPAI A(H5N1) also seems to be the cause of the recently reported human cases in **Cambodia**

[Read More](#)



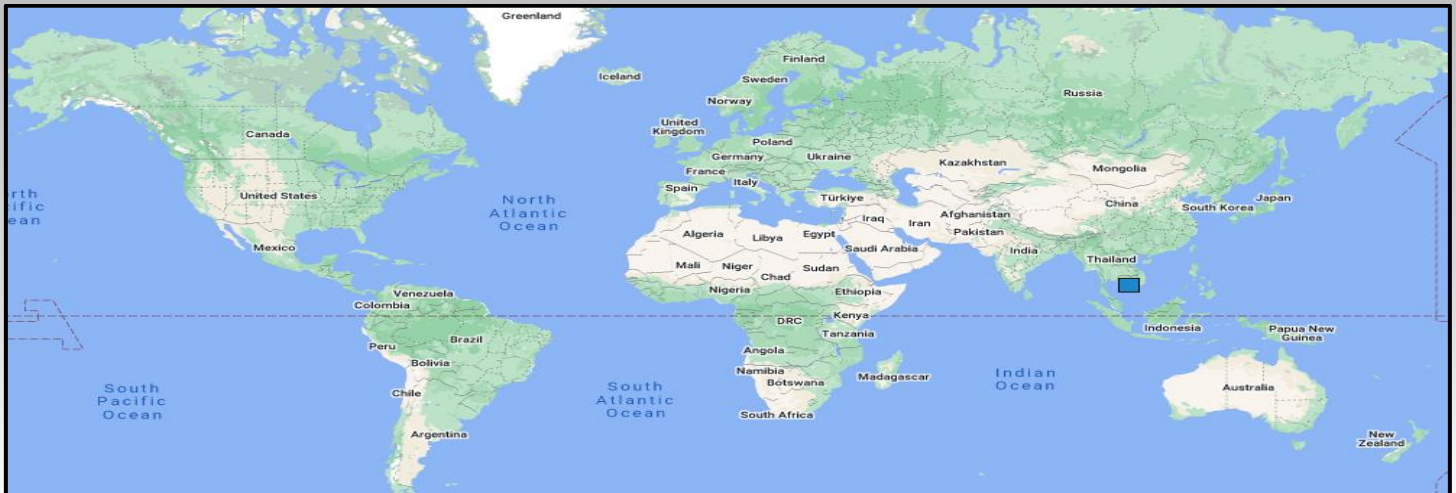
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## NEW EVENTS: (events rated > 2)



### Influenza A (H9N2) in human in Vietnam

**Pathogen:** virus; **Transmission:** direct contact, fomite, aerosol; **Species affected in event:** human

① Vietnam has reported its first ever human case of influenza A(H9N2), in a 37-year-old male patient from the southern province of Tien Giang. The patient developed symptoms of fever on March 10, 2024 and self-medicated, but not regularly. On March 16, 2024, he was diagnosed with severe pneumonia suspected to be caused by a virus and is currently being treated in isolation at the Ho Chi Minh City Tropical Diseases Hospital. According to the results of the epidemiological investigation, the patient's place of residence is in a poultry market. However, there have been no reports of sick or dead poultry around the area where the patient's family lives. Close contacts are being monitored, and as of April 7, 2024 no symptoms of respiratory infection have been detected.

[Read More](#)

Avg. Rating	3.0
No. of Signal	2
No. of Ratings	4

## CONTINUED EVENTS: (events rated $\geq 2.4$ )

### **Influenza A (H5N1) in the USA**

**No. of Signals: 05**

**No. of weeks in report: 13**

**Avg. Rating: 2.7 - 4.0**

- The CDC released their [sequencing analysis](#) of samples from the Texas human infection with influenza A(H5N1) revealing it is closely related to the viruses detected in dairy cattle (clade 2.3.4.4b, genotype B3.13) and contains one mammalian adaptation mutation (PB2-E627K)

### **Highly Pathogenic Avian Influenza in North America**

**No. of Signals: 24**

**No. of weeks in report: 110**

**Avg. Rating: 2.0 - 3.0**

- [Canada](#) has not reported any new outbreaks of HPAI in domestic poultry over the last week
- Over the last week, the [USA](#) has reported outbreaks of HPAI in commercial poultry in: Michigan(1) and Texas(1)
- [Idaho](#) and [Ohio](#) have both confirmed first detections of HPAI H5N1 in dairy herds; to date, the USDA has confirmed detections of HPAI in dairy herds in: Texas(9) Kansas(3), New Mexico(2), Michigan(1), Idaho(1), and Ohio(1)
- [Texas](#) has also confirmed HPAI in three cats, displaying clinical signs, on affected dairy farm operations
- [USDA researchers](#) tested milk, nasal swabs, and blood from cows at affected dairy herds and only found clear signals of the virus replicating in the udder, indicating that the virus may be transmitted from cow to cow via milking machines or in milk droplets on dairy workers' clothing or gloves

### **Highly Pathogenic Avian Influenza in Asia**

**No. of Signals: 02**

**No. of weeks in report: 135**

**Avg. Rating: 2.0 - 3.0**

- [Vietnam](#) has identified a new re-assorted H5N1 virus, that has the surface proteins from the older 2.3.2.1c clade but the internal genes from the newer 2.3.4.4b clade, in chickens and muscovy ducks; this new re-assorted HPAI A(H5N1) also seems to be the cause of the recently reported human cases in Cambodia
- The [Philippines](#) have confirmed HPAI H5N1 in a domestic birds in Central Luzon

### **Rabies in the USA**

**No. of Signals: 01**

**No. of weeks in report: 03**

**Avg. Rating: 2.5**

- Since March 2022, >30 cases of racoon rabies have been detected in [Vermont](#), along Lake Champlain, near the Quebec-Vermont border; the risk of introducing racoon rabies into Quebec has risen significantly and residents of Eastern Townships and Montérégie are being told to be vigilant and report sightings of any wild animals suspected of having rabies

### **Highly Pathogenic Avian Influenza in Europe**

**No. of Signals: 03**

**No. of weeks in report: 172**

**Avg. Rating: 2.0**

- The [Netherlands](#) and [Germany](#) have reported HPAI H5N1 in wild birds
- A summary of the overall HPAI situation in Europe is available [here](#)

### **Highly Pathogenic Avian Influenza in Africa**

**No. of Signals: 01**

**No. of weeks in report: 69**

**Avg. Rating: 2.0**

- [South Africa](#) has reported HPAI H5 in wild birds in Western Cape

### **Highly Pathogenic Avian Influenza in Antarctica**

**No. of Signals: 01**

**No. of weeks in report: 08**

**Avg. Rating: 2.0**

- [Researchers](#) suspect HPAI may be behind the deaths of >532 Adelie penguins found last month on Heroína Island, with thousands more thought to have died; however, field tests have been inconclusive

## SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

### Coronavirus

- ◆ Bat species assemblage predicts coronavirus prevalence [Read More](#)

### Influenza

- ◆ Drivers for a pandemic due to avian influenza and options for One Health mitigation measures [Read More](#)
- ◆ Long-Distance Avian Migrants Fail to Bring 2.3.4.4b HPAI H5N1 Into Australia for a Second Year in a Row [Read More](#)
- ◆ Long-term co-circulation of multiple influenza A viruses in pigs, Guangxi, China [Read More](#)
- ◆ WHO - Public health resource pack for countries experiencing outbreaks of influenza in animals: revised guidance [Read More](#)

### Foot and Mouth Disease

- ◆ Seroprevalence and molecular detection of foot and mouth disease virus in cattle in selected districts of Wolaita Zone, Southern Ethiopia [Read More](#)

### Mpox

- ◆ Co-Circulating Monkeypox and Swinepox Viruses, Democratic Republic of the Congo, 2022 [Read More](#)
- ◆ ECDC - Epidemiological Update - Outbreak of mpox caused by Monkeypox virus clade I in the Democratic Republic of the Congo [Read More](#)

### Vectors and Vector-borne Diseases

- ◆ PAHO - Epidemiological Update - Increase in dengue cases in the Region of the Americas - 29 March 2024 [Read More](#)
- ◆ Molecular epidemiology identifies the expansion of the DENV2 epidemic lineage from the French Caribbean Islands to French Guiana and mainland France, 2023 to 2024 [Read More](#)
- ◆ Crimean–Congo haemorrhagic fever virus uses LDLR to bind and enter host cells [Read More](#)
- ◆ Animal Exposure Model for Mapping Crimean-Congo Hemorrhagic Fever Virus Emergence Risk [Read More](#)
- ◆ Unravelling the genomic origins of lumpy skin disease virus in recent outbreaks [Read More](#)
- ◆ Towards modelling tick-virus interactions using the weakly pathogenic *Sindbis* virus: Evidence that ticks are competent vectors [Read More](#)

### Other

- ◆ Detection of Rat Hepatitis E Virus in Pigs, Spain, 2023 [Read More](#)
- ◆ Geographic Disparities in Domestic Pig Population Exposure to Ebola Viruses, Guinea, 2017–2019 [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 09/04/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 31 March – 6 April 2024, week 14 [Read More](#)
- ◆ SHIC Global Disease Monitoring Report - April 2024 [Read More](#)

#### Disclaimer

This intelligence report is intended to provide information to risk managers about emerging and zoonotic disease events that could pose a threat to Canada. It is based on information signals acquired and selected from twenty-one distinct disease surveillance sources via the Knowledge Integration using Web-based Intelligence (KIWI) tool hosted on the Canadian Network for Public Health Intelligence (CNPHI) informatics platform. The report is based on the activities of the CEZD Community of Practice and subject to change based on evolving user needs.