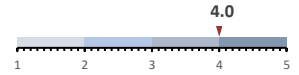


SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

Influenza A (H5)

◆ **California** has confirmed two human cases of influenza A (H5) in dairy farm workers from different farms (no known links between them) with a third possible human case of H5 identified in a dairy farm worker in the **Central Valley** which is awaiting CDC confirmation; all of the cases experienced mild symptoms, including eye redness and/or discharge

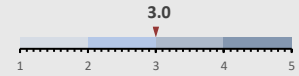
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Highly Pathogenic Avian Influenza

◆ As of October 7, 2024, the USDA has reported influenza A(H5N1) in a total of 283 dairy herds across 14 states: **Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), Minnesota(9), New Mexico(9), Iowa(13), Texas(26), Michigan(29), Idaho(34), California(83), and Colorado(64)**

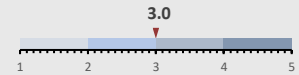
[Read More](#)



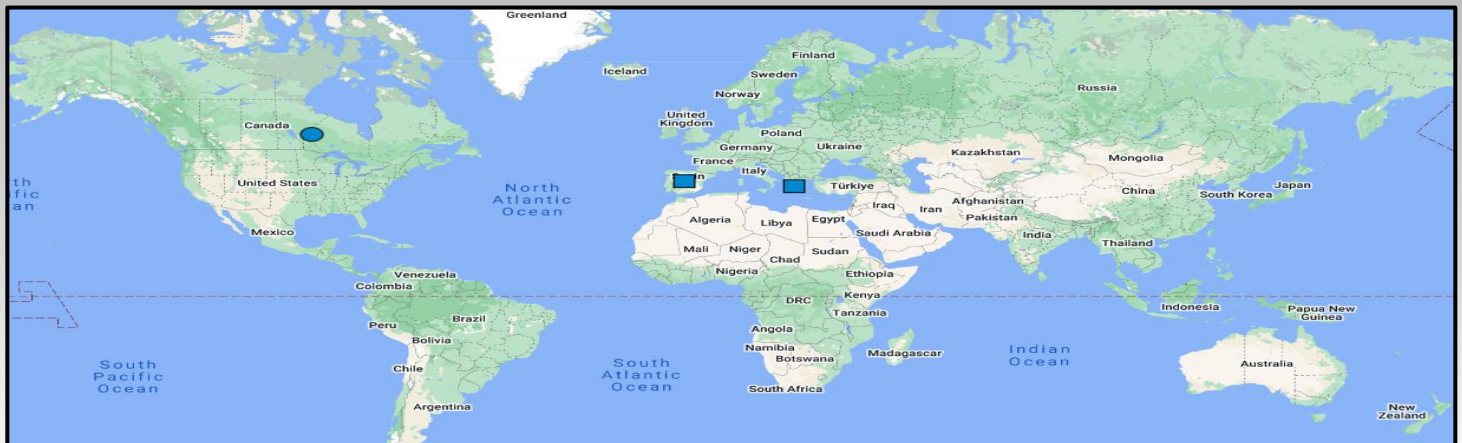
○ The recent outbreaks have been reported from **California(40)** and **Idaho(1)**

◆ In **Vietnam**, dozens of tigers (media reports anywhere from 17-47), three lions, and a panther across two zoos have died due to HPAI H5N1; two samples taken from dead tigers tested positive for H5N1, with the animals likely infected by eating meat from infected chickens

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NEW EVENTS: (events rated > 2)



Bluetongue serotype 3 in Spain and Greece

Pathogen: virus; **Transmission:** vector – culicoides; **Species affected in event:** sheep, goats, cattle

① At the end of September 2024, Spain confirmed its first occurrences of BTV-3; two cases were reported in the province of Badajoz and a third in Huelva. The country has ordered ~175,000 doses of the BTV-3 vaccine.

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Greece has confirmed its first occurrence of BTV-3. Ten outbreaks have been reported in sheep and goat in the northeast of the country close to the borders of Turkiye and Bulgaria.

[Read More](#)

| | |
|----------------|-----|
| Avg. Rating | 2.5 |
| No. of Signal | 3 |
| No. of Ratings | 2 |

Salmonella Muenchen infections across Canada

Pathogen: bacteria; **Transmission:** direct contact; **Species affected in event:** human

① Canada has reported 25 cases of *Salmonella* Muenchen in people linked to contact with geckos. Cases have been reported across the country, from British Columbia to Newfoundland and Labrador, with the majority reported from Ontario(13). Infections date back to August 2020 with the age range of patients being 1-103. Three individuals have been hospitalized and one has died.

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| | |
|----------------|-----|
| Avg. Rating | 2.3 |
| No. of Signal | 3 |
| No. of Ratings | 4 |

CONTINUED EVENTS: (events rated ≥ 2.4)

| | | | |
|--|----------------------------------|---|--------------------------------------|
| <u>Influenza A (H5) in the USA</u> | <u>No. of Signals: 05</u> | <u>No. of weeks in report: 24</u> | <u>Avg. Rating: 3.0 - 4.0</u> |
| <ul style="list-style-type: none"> • California has confirmed two human cases of influenza A (H5) in dairy farm workers from different farms (no known links between them) with a third possible human case of H5 identified in a dairy farm worker in the Central Valley which is awaiting CDC confirmation; all of the cases experienced mild symptoms, including eye redness and/or discharge | | | |
| <u>Highly Pathogenic Avian Influenza in Asia</u> | <u>No. of Signals: 07</u> | <u>No. of weeks in report: 157</u> | <u>Avg. Rating: 2.0 - 3.0</u> |
| <ul style="list-style-type: none"> • In Vietnam, dozens of tigers (media reports anywhere from 17-47), three lions, and a panther across two zoos have died due to HPAI H5N1; two samples taken from dead tigers tested positive for H5N1, with the animals likely infected by eating meat from infected chickens • China has reported an outbreak of HPAI H5N6 in wild birds located on an island in Xiangshan that began on June 13, 2024 and ended August 7, 2024 • Japan has reported HPAI H5 in a Peregrin falcon | | | |
| <u>Highly Pathogenic Avian Influenza in North America</u> | <u>No. of Signals: 05</u> | <u>No. of weeks in report: 136</u> | <u>Avg. Rating: 2.0 - 3.0</u> |
| <ul style="list-style-type: none"> • Canada has not reported any outbreaks of HPAI in domestic poultry over the last week • Over the last week, the USDA has reported outbreaks of HPAI in WOAHP poultry in: Idaho(1) • As of October 7, 2024, the USDA has reported influenza A (H5N1) in a total of 283 dairy herds across 14 states: Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), Minnesota(9), New Mexico(9), Iowa(13), Texas(26), Michigan(29), Idaho(34), California(83), and Colorado(64); all recent outbreaks were reported from California(40) and Idaho(1) • The FDA will be conducting a double-blind silo study in an effort gather data in order to understand the prevalence of H5N1 in bulk raw cow's milk received by dairy processing facilities across the nation; neither participating nor non-participating states or facilities will be identified as part of this project • Wastewater surveillance dashboards for influenza can be found at the CDC and Stanford University's WastewaterSCAN | | | |
| <u>Marburg virus in Rwanda</u> | <u>No. of Signals: 06</u> | <u>No. of weeks in report: 02</u> | <u>Avg. Rating: 2.0 - 2.8</u> |
| <ul style="list-style-type: none"> • As of October 7, 2024, Rwanda has confirmed 56 cases of Marburg virus along with 12 deaths; the country has secured 700 doses of Marburg vaccine and vaccination of frontline responders has begun • The USA will begin screening travellers coming into the country who have been in Rwanda in the previous 21 days | | | |
| <u>Middle East Respiratory Syndrome Coronavirus in the Middle East</u> | <u>No. of Signals: 01</u> | <u>No. of weeks in report: 02</u> | <u>Avg. Rating: 2.7</u> |
| <ul style="list-style-type: none"> • Saudi Arabia has reported a human cases of MERS-CoV in a 50-55-year-old male with underlying health conditions and no history of contact with camels; after hospital discharge but prior to lab confirmation of MERS-CoV the patient travelled to Pakistan, however no secondary cases have been identified | | | |
| <u>Rabies in Ontario</u> | <u>No. of Signals: 01</u> | <u>No. of weeks in report: 02</u> | <u>Avg. Rating: 2.5</u> |
| <ul style="list-style-type: none"> • The recent human case of rabies in Ontario was a child in Timiskaming who woke up with a bat in their room and died as a result of the virus; also in Ontario, the Haldimand-Norfolk region has reported a 16% positivity rate of rabies in bats this year compared to 10% in previous years | | | |
| <u>Bluetongue virus in Europe</u> | <u>No. of Signals: 11</u> | <u>No. of weeks in report: 15</u> | <u>Avg. Rating: 2.0 - 2.5</u> |
| <ul style="list-style-type: none"> • Norway, Sweden, Denmark, Germany, and England have reported additional outbreaks of BTV-3 • In the UK, Wales has reported its first cases of BTV-3 following animal movement from England • Turkiye has reported an outbreak of BTV (serotype unknown) in the Kadidli District (southern Turkiye) prompting movement restrictions and the closure of a live animal market • Switzerland has reported an outbreak of BTV-8 in sheep and cattle | | | |
| <u>New World Screwworm in South/Central America and Cuba</u> | <u>No. of Signals: 03</u> | <u>No. of weeks in report: 14</u> | <u>Avg. Rating: 1.7 - 2.5</u> |
| <ul style="list-style-type: none"> • As of September 28, 2024, Panama has reported 18,553 cases of New World Screwworm, Costa Rica has reported 6,938 cases, Nicaragua has reported 3,307 cases, and Honduras has reported 8 cases - unclear if cattle or equine • Panama has reported ~79 human cases of the screwworm infestation, with Costa Rica reported 25 human cases and Nicaragua 2 human cases • Mexico is increasing its preparedness and prevention efforts regarding the screwworm; Mexico is providing Central American nations with over 90,000 packets of larvicides and wound-healing powders to support containment efforts | | | |
| <u>Highly Pathogenic Avian Influenza in Europe</u> | <u>No. of Signals: 18</u> | <u>No. of weeks in report: 193</u> | <u>Avg. Rating: 2.0</u> |
| <ul style="list-style-type: none"> • Germany, Moldova, Hungary, France, and Italy have reported outbreaks of HPAI H5N1 in domestic poultry • Spain, Hungary, Denmark, Moldova, Germany, and Serbia have reported cases of HPAI H5N1 in wild birds • The Faeroe Islands have reported HPAI H5N5 in wild birds • France is launching its second compulsory vaccination campaign for ducks • A summary of the overall HPAI situation in Europe is available here | | | |

SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

Influenza

- ◆ ECDC/EFSA - Avian influenza overview June–September 2024 [Read More](#)
- ◆ Detection of airborne wild waterbird-derived DNA demonstrates potential for transmission of avian influenza virus via air inlets into poultry houses, the Netherlands, 2021 to 2022 [Read More](#)
- ◆ Intelligent prediction and biological validation of the high reassortment potential of avian H5N1 and human H3N2 influenza viruses [Read More](#)
- ◆ Detection and Monitoring of Highly Pathogenic Influenza A Virus 2.3.4.4b Outbreak in Dairy Cattle in the United States [Read More](#)
- ◆ Bovine Highly Pathogenic Avian Influenza Virus Stability and Inactivation in the Milk Byproduct Lactose [Read More](#)
- ◆ Experimental infection of Clades 2.2.1.2 (H5N1) and 2.3.4.4b (H5N8) of highly pathogenic avian influenza virus infection in commercial broilers [Read More](#)
- ◆ Characterization of Avian Influenza Viruses Detected in Kenyan Live Bird Markets and Wild Bird Habitats Reveal Genetically Diverse Subtypes and High Proportion of A(H9N2), 2018–2020 [Read More](#)

Mpox

- ◆ Mpox virus infection in women and outbreak sex disparities: A Systematic Review and Meta-analysis [Read More](#)

Vectors and Vector borne Diseases

- ◆ The First Human Disease Case Of An Emerging *Rickettsia Parkeri* Rickettsiosis Transmitted By The Invasive Gulf Coast Tick In The Northeast [Read More](#)
- ◆ Co-Circulation of 2 Oropouche Virus Lineages, Amazon Basin, Colombia, 2024 [Read More](#)
- ◆ Human outbreaks of a novel reassortant Oropouche virus in the Brazilian Amazon region [Read More](#)
- ◆ First detection of Bagaza virus in Common magpies (*Pica pica*), Portugal 2023 [Read More](#)
- ◆ ECDC - The risk of tick-borne encephalitis virus transmission via substances of human origin [Read More](#)
- ◆ WHO - Global strategic preparedness, readiness and response plan for dengue and other Aedes-borne arboviruses [Read More](#)

Other

- ◆ Rat hepatitis E virus cross-species infection and transmission in pigs [Read More](#)
- ◆ Tracking sero-molecular trends of swine brucellosis in Hawai'i and the central Pacific [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 08/10/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 28 September - 4 October 2024, week 40 [Read More](#)
- ◆ SHIC Domestic Disease Monitoring Report – October 2024 [Read More](#)
- ◆ SHIC Global Disease Monitoring Report – October 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.