

# Infectious Disease Spotlight: Avian Influenza

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**To:** Chair and Members of the Board of Health

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## Recommendations

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It is recommended that the Board of Health receive this report for information.

## Key Points

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- Highly Pathogenic Avian Influenza (HPAI) is a highly contagious viral disease affecting birds, with the potential to infect humans and other animals.
- Local cases of avian influenza in poultry and domestic birds have been reported in Wellington-Dufferin-Guelph (WDG) in both 2022 and 2025, affecting poultry farm production and posing economic impacts to the larger commercial farming industry.
- The overall transmission risk to humans remains low but ongoing surveillance is necessary, particularly for individuals with close contact with infected birds.
- Wellington-Dufferin-Guelph Public Health (WDGPH) works closely with interagency partners, including the Canadian Food Inspection Agency, the Ontario Ministry of Agriculture, Food and Agribusiness and local municipalities and townships to respond to avian influenza in commercial and domestic bird cases in the WDG region.
- Enhanced surveillance, biosecurity and preventative measures and avian influenza outbreak preparedness strategies are essential to limiting the spread of HPAI and critical to mitigating the risks of spillover to humans and other animals.

## Background

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Highly pathogenic avian influenza (HPAI) is a virulent strain of avian influenza that predominantly affects wild and domestic birds but can occasionally infect humans and other animals. The virus is known for its rapid spread and significant mortality rate among poultry. Outbreaks of avian influenza have increased in recent months across the globe, including Canada. Federal, provincial and local authorities are monitoring animal and human health and ensuring stringent biosecurity and control measures to prevent further spread.

Since 2021, Canada has seen widespread HPAI outbreaks, specifically from the H5N1 strain, impacting wild and domesticated bird populations.<sup>1</sup> These outbreaks have led to the culling of millions of birds, resulting in substantial economic losses for farmers and disruptions in the food supply chain. Under federal legislation governing animal welfare and food safety, the Canadian Food Inspection Agency (CFIA) is the lead agency for managing animal health, implementing quarantine zones, conducting extensive testing and overseeing depopulation efforts to contain the virus. The responsibility of monitoring human health exposures and providing public health management relies on local public health units in collaboration with the respective provincial and public health authorities.

Wellington-Dufferin-Guelph was the first region in Ontario to detect avian influenza in domesticated birds in 2022.<sup>2</sup> WDG had several commercial and non-commercial poultry flocks identified in 2022 and now again in 2025. The collaborative efforts of various agencies, including local municipalities, WDGPH, the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA) and the CFIA, have been crucial partners in managing avian influenza outbreaks in poultry and reducing further spread of illness.

Although the general risk to humans remains low, individuals that have ongoing contact with infected animals are at highest risk of acquiring illness. Since HPAI has been identified in Canada, there has been only one case of human illness identified. With widespread HPAI outbreaks, there is an increased risk that this virus poses to human health.

Canada is heightening surveillance activities to monitor the evolving situation of avian influenza in animals and humans. The Public Health Agency of Canada (PHAC) has secured access to human avian influenza vaccine for high-risk groups, aiming to bolster preparedness and mitigate risks associated with future outbreaks.<sup>3,4</sup> Ongoing collaboration with government agencies for comprehensive preparedness strategies is essential to controlling HPAI and safeguarding both animal and human health locally, provincially and nationally.

## Discussion

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In WDG, there has been one commercial farm identified this year, triggering a rapid interagency response. OMAFA and CFIA provided a crucial role in the animal health response, whereas the Ministry of Health, Public Health Ontario (PHO) and WDGPH focused efforts on the human exposures. CFIA led the animal health response, focused on isolation, surveillance, tracing of potentially infected or exposed animals, humane depopulation of poultry and domestic bird flocks, strict quarantine and animal movement controls, decontamination and controlled access zones to respond effectively to eradicate the disease.

WDGPH focused on the human health management of avian influenza exposures which consisted of health surveillance, infection prevention and control strategies, such as the use of personal protective equipment (PPE), rapid initiation of antiviral medication, education and supportive resources, as needed. WDGPH consulted with PHO and the Ministry of Health for expert scientific and technical support. The strong interagency collaboration and response with the affected farms and owners limited any further spread of avian influenza.

### Risk Factors and Key Public Health Responses

- HPAI spreads through direct contact with infected birds, contaminated surfaces and aerosolized particles. Farmers and poultry workers face the highest risk of exposure.
- Identification of high-risk contacts, rapid antiviral initiation, promotion of seasonal influenza vaccine, surveillance, infection prevention and control recommendations and education are crucial responses initiated by WDGPH.
- The seasonal influenza vaccine is promoted and administered to high-risk groups through targeted vaccine clinics.
- PHAC has authorized and acquired doses of the avian influenza vaccine as part of the readiness plan to protect the health of Canadians.
- Enhanced farm-level biosecurity, such as controlled access zones, PPE use, and disinfection protocols, are being promoted.
- Increased monitoring of poultry populations, environmental sampling, and testing of symptomatic individuals remain key strategies.

## Interagency Collaboration

### Canadian Food Inspection Agency

CFIA leads HPAI outbreak investigations, confirming cases through laboratory testing and enforcing quarantine zones around infected premises to prevent further spread. CFIA also oversees the humane depopulation of infected and exposed poultry, provides financial compensation to affected poultry producers through federal support programs and communicates animal updates on outbreak status, movement restrictions and biosecurity guidelines to relevant stakeholders.

### Ontario Ministry of Agriculture, Food and Agribusiness

OMAFRA is actively supporting poultry farmers by providing comprehensive biosecurity recommendations to curb the transmission risks associated with HPAI. They offer technical expertise on managing farm-level outbreaks and containment strategies, ensuring that farmers have the necessary tools and knowledge to tackle this issue effectively, including access to mental health resources. OMAFRA collaborates closely with the CFIA to assess and mitigate the economic impacts on the agricultural sector, ensuring that affected poultry producers receive financial compensation through federal support programs. Additionally, OMAFRA engages with industry groups regularly to disseminate resources and guidance on biosecurity and animal welfare, helping farmers navigate the challenges posed by the outbreak. This collaborative effort aims to protect both animal and human health while sustaining the agricultural industry in the region.

### Ministry of Health

The MOH coordinates health risk assessments with Public Health Ontario and local health units. It supports the procurement and distribution of antivirals and vaccines for high-risk groups, as well as providing policy direction on pandemic preparedness. Additionally, it integrates lessons learned from HPAI outbreaks into broader infectious disease response planning. The Ministry take a coordinated approach with all HPAI investigations in Ontario and works with CFIA and other federal counterparts to mitigate risks in the province.

### Wellington-Dufferin-Guelph Public Health

WDG Public Health plays a critical role in investigating and managing HPAI contacts, focusing on potential human health effects. The Agency actively monitors potential human cases and assesses local transmission risks. When HPAI is detected in birds or animals, WDG Public Health investigates human exposure and evaluates the risk of disease spread.

Key to the work of WDGPH on HPAI is collaboration with key agencies, including the local municipalities, CFIA, OMAFA and PHO, ensuring a coordinated local response to animal outbreaks to limit potential threats to human health. This includes participation in interagency responses and consultation with relevant organizations.

Public and professional education is a core component of WDGPH's response. The Agency provides information to small flock owners, poultry workers, veterinarians and healthcare providers on HPAI symptoms, infection prevention measures and biosecurity practices to minimize risks. Additionally, WDG Public Health engages in risk communication with municipalities, emergency management teams and members of the community to align preparedness and response efforts.

As part of its responsibilities, WDGPH investigates potential zoonotic spillover events and works with Ministry of Health and PHO on reporting and response strategies. The Agency also reports HPAI cases in animals to the Ministry of Health and PHO. These organizations assist WDG Public Health to provide guidance on managing the public health aspects of HPAI exposures. Through these efforts, WDG Public Health ensures a comprehensive approach to limiting the impact of avian influenza and protecting both the local community and farming sector.

### **Local and Regional Partners**

The City of Guelph, County of Wellington and County of Dufferin collaborate on emergency response planning, public awareness campaigns and support measures for businesses affected by avian influenza outbreaks. These partnerships ensure that local authorities are well-prepared to handle emergencies and can disseminate critical information effectively to the public.

Veterinary networks, including private veterinarians and the Ontario Veterinary College, are essential in the early detection and diagnostic testing of avian influenza. They provide valuable advice to poultry producers on best practices for managing the disease and preventing its spread. Their expertise and close contact with the agricultural community make them key players in the overall response strategy.

Industry associations like the Chicken Farmers of Ontario offer on-the-ground insights and support advocacy efforts. They play a vital role in relaying information between regulatory agencies and farmers, ensuring that the latter are kept informed about the latest developments and guidelines. These associations help bridge the gap between policy making and practical implementation, thereby enhancing the overall effectiveness of the response to avian influenza outbreaks.

## Current Initiatives and Next Steps

Through interagency collaboration, federal and provincial agencies have provided critical guidance to commercial and non-commercial flock owners on HPAI. These efforts ensure that large-scale and small-scale poultry operations are equipped with best practices for biosecurity, surveillance, and response measures. Ultimately, these combined endeavors protect the health and safety of the animals and the people.

WDGPH focuses on the human health consequences of HPAI exposures with prevention strategies and educational initiatives. Current local health initiatives are offering targeted seasonal influenza vaccine clinics for those in the poultry, swine and cattle industries, contact tracing, active monitoring and surveillance of exposed contacts, enhancement of internal processes and procedures to rapidly provide antiviral medication to high-risk contacts of avian influenza and reducing barriers to access PPE at no cost to affected farms. Additionally, projects to support small flock owners and municipal partners with educational resources are ongoing, including developing online materials, printed factsheets/postcards and targeted initiatives (Figure 1). These initiatives and resources can help mitigate HPAI transmission risk, promote early detection, and provide guidance on reporting and containment strategies.



Figure 1 Front and back of educational postcard distributed to local animal supply and feed suppliers in WDG region.

## Next steps for WDG Public Health

- Strengthen collaboration with local agricultural organizations, veterinary services and municipal partners to ensure a coordinated approach to HPAI prevention and other zoonotic or vector borne diseases.
- Continue to collaborate and share information with local municipalities to engage backyard and small-scale poultry operations for better early detection and response.

- Expand targeted communication campaigns to increase awareness among small flock owners and the public about best practices for preventing HPAI transmission.
- Continue to engage with emergency management teams to align response strategies and share real-time information on emerging risks.
- Collaborate with PHAC, Ministry of Health and other local PHUs to develop a plan for HPAI preparedness and potential avian influenza vaccine delivery for the WDG region.

By advancing these initiatives, WDGPH aims to strengthen community resilience against H5N1 and support the broader public health and agricultural responses to HPAI.

### Health Equity Implications

HPAI outbreaks significantly affect rural and agricultural communities, especially farmers who depend on poultry production and small flock owners. WDGPH continues to provide affected groups with resources and health protection measures. WDGPH has pre-positioned an antiviral supply from the Ministry of Health at three offices. With enhanced internal policies and processes, the goal is to reduce access barriers to ensure a rapid response to avian influenza outbreaks in the WDG region. Streamlined processes with Ontario Supply for no-cost access to personal protective equipment will ensure continued use without financial barriers for affected farms. Additional efforts include exploring multilingual education for farm workers facing language barriers and distributing educational packages to local businesses such as feed and supply stores. The WDGPH team collaborates with partners and non-profits to share public health information and engages in knowledge translation initiatives with municipal partners. All these efforts are to improve access and reduce barriers to resources and information of HPAI for those in the rural and agricultural communities, to continue to protect the health of the WDG region.

### Conclusion

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HPAI remains a persistent threat to both animal and public health. The rising number of cases in WDG underscores the need for a coordinated and proactive response to contain outbreaks and reduce risks to agriculture and human health. Strengthening collaboration with provincial and federal agencies, maintaining rigorous surveillance and implementing enhanced biosecurity measures are essential to limiting the spread of the virus. Additionally, strong ongoing partnerships with key players and organizations will enhance capacity and improve preparedness for future investigations.



## Ontario Public Health Standards

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### Foundational Standards

- Population Health Assessment
- Health Equity
- Effective Public Health Practice
- Emergency Management

### Program Standards

- Chronic Disease Prevention and Well-Being
- Food Safety
- Healthy Environments
- Healthy Growth and Development
- Immunization
- Infectious and Communicable Diseases Prevention and Control
- Safe Water
- School Health
- Substance Use and Injury Prevention

## 2024-2028 WDGPH Strategic Goals

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More details about these strategic goals can be found in [WDGPH's 2024-2028 Strategic Plan](#).

- Improve health outcomes
- Focus on children's health
- Build strong partnerships
- Innovate our programs and services
- Lead the way toward a sustainable Public Health system



## References

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