

Avian Influenza

Preparedness and Response

Avian Influenza – a Manitoba Overview

Avian influenza is a viral infection that mainly affects birds. Wild birds, particularly ducks and geese, have carried influenza viruses for hundreds, perhaps thousands of years. Wild birds may carry avian influenza (sometimes known as bird flu) without any signs of disease. However, they can spread the disease to other birds, including domestic poultry. Mammals, including humans can also catch an avian influenza virus from infected birds.

News coverage from Asia and Europe has reported extensively on the H5N1 influenza virus that has infected both wild and domestic birds. In some cases, it has also spread from infected birds to people causing severe illness or death. For domestic poultry, this form of H5N1 is considered a highly pathogenic virus, meaning it is very contagious and deadly for birds. It is extremely rare for people to get avian influenza. Although some people with very close contact with birds have contracted the virus, the disease has not spread easily from person to person, if at all.

The avian influenza virus could arrive in North America in late summer or early autumn of 2006. The virus is expected to first appear in wild bird populations. Even if the virus is found in wild birds, it does not necessarily mean domestic poultry will become infected. It is expected it will be safe to eat properly prepared poultry and eggs. The potential for people to become infected with avian influenza has been extremely low.

Influenza

There are many variations of influenza. However, there are three main types that are of interest around the world:

- 1. Annual human influenza** – Human influenza viruses circulate every year. The viruses change slightly each year, so generally most people have some specific immunity. Scientists can generally track the variations to develop an annual vaccine to prevent influenza. For more information, see www.gov.mb.ca/health/flu
- 2. Avian influenza** – Bird flu affects birds and some mammals. In rare cases, this virus can spread from birds to people. Avian viruses are watched carefully in case they undergo a major change that could cause a human pandemic with significant illness and death among people. See www.gov.mb.ca/avian.
- 3. Pandemic human influenza** – A pandemic would be the result of a major change in an influenza A virus, for which people will have little or no specific immunity. A pandemic influenza could cause significant illness and death among people around the world. Although the severity is unknown, it would be widespread. For further information, please visit www.gov.mb.ca/pandemic.

Avian Influenza, Human Health and Pandemic Influenza

People in Asia and Europe have become ill with avian influenza, but there has been little, if any human-to-human transmission of the disease. Most people have become ill through direct contact with infected birds. Scientists are monitoring avian influenza to determine if it could change, potentially causing a pandemic. It is not known if the next pandemic would come from this avian influenza or another source.

Fully cooking domestic and wild poultry products such as chicken, turkey, ducks, geese and eggs will kill harmful viruses, including the avian influenza virus.

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Avian Influenza in Manitoba and Canada

Manitoba is on a major migratory path for wild bird populations, particularly ducks and geese. Given the spread of highly pathogenic H5N1 in Asia and Europe, often known as Asian H5N1, Canadian scientists anticipate the Asian strain H5N1 virus may appear in North America this year. Manitoba could potentially see an outbreak of avian influenza among wild bird populations possibly in the late summer or early autumn.

In 2005, Manitoba participated in a wild bird survey to monitor influenza in wild bird populations. Several ducks in Manitoba were found to be carrying the North American strain of the H5N1 virus – not the highly pathogenic or virulent version found in Asia and Europe. No illness was found in duck populations in Manitoba.

In 2004, British Columbia experienced an outbreak of an H7N3 influenza virus - a different type of avian influenza. The affected chicken flocks were humanely destroyed. These measures stopped the virus from spreading and the disease was controlled. Two people who worked closely with chickens became slightly ill and recovered completely.

Poultry Industry in Manitoba

Manitoba's \$180 million industry has 400 producers and farms, employing more than 1500 people. Most farms are family run operations with 10,000 to 30,000 birds per flock. Most large poultry farms are located in southeast Manitoba. There are three processors that package poultry products for sale to local and international markets.

Manitoba's poultry operations are clean, well-managed operations. Poultry operations, including those with small flocks raised outdoors, practise good biosecurity measures. Domestic flocks are unlikely to mix with wild birds that may carry avian influenza. These operations follow the best biosecurity practices to protect valuable flocks and provide consumers with safe, reliable, high quality food products. Even with a modern and pro-active industry, it's still important to plan for possible avian influenza in both wild and domestic bird populations.

Working Together

Across Canada, the federal and provincial governments are working co-operatively on avian influenza, similar to the national effort to plan for a pandemic influenza. Activities such as conducting wild bird surveys provide additional information to make informed decisions.

The provincial government, through Manitoba Agriculture, Food and Rural Initiatives (MAFRI) and Manitoba Health, is working closely with the federal government's Canadian Food Inspection Agency (CFIA) and Public Health Agency of Canada to plan and prepare for a potential outbreak of avian influenza. There are four stages of avian influenza preparation.

Stage 1 - Planning and Preparing

This involves monitoring for potential disease, undertaking public education efforts and planning for a potential disease outbreak among wild birds, domestic poultry or people. During stage one:

- The risk of avian influenza to people is extremely low.
- The risk to the domestic poultry industry is low.
- The risk to wild birds is low but is being monitored.

Surveillance

Manitoba is part of the 2006 national wild bird influenza survey. The province is also conducting its own surveillance of wild birds and poultry flocks in co-operation with producers, veterinarians and wildlife officials. Manitoba also has an inventory of poultry operations.

Control Measures

Manitoba veterinarians, who work with poultry producers, monitor the health of domestic flocks. As an additional precaution, Manitoba is working with pig producers to emphasize the importance of maintaining high biosecurity standards to reduce the risk of infection.

Stage 2 – Asian H5N1 Found in Wild Birds

Tests from survey findings or large die-offs of birds will alert scientists and the public to the presence of a possible avian influenza virus. Tests will be conducted to determine the strength of the virus – is it highly pathogenic, and therefore virulent and contagious to other birds. In stage two:

- The risk of avian influenza to people remains extremely low.
- The risk to the domestic poultry industry increases, making extra precautions necessary.
- A positive finding in wild birds would indicate the virus is present in Manitoba.

Control measures

If infected wild birds are found in or near Manitoba with the Asian H5N1 form of avian influenza, additional control measures would be implemented. Manitoba would require producers with outdoor flocks to harvest their birds or move them indoors where chlorinated water and clean feed could be provided.

Finding a wild bird with avian influenza in other parts of North America would result in increased surveillance measures and reminders to producers about the importance of following stringent biosecurity measures.

Although the risk to people from infected wildlife is very low, public health officials will reinforce messages about how to minimize risk. This will include advice on personal hygiene, the risk of direct contact with birds and their feces, safe food handling and food preparation, and the safety of drinking water.

Parks and Ponds

The risk of getting the Asian H5N1 avian influenza from healthy geese in parks, ponds and golf courses is considered extremely low. As always, there are some common sense precautions to take when around any wild animals, which may carry a range of diseases. To reduce the risk of being injured or picking up a disease from wild birds and animals, people should avoid feeding them or coming into direct contact with them or their feces. For more information, see www.gov.mb.ca/conservation/wildlife/.

Pets and Wild Birds

There are also common sense steps to take to deal with the potential interaction of pets, geese or other wild birds. Pets and people should avoid contact with goose or any animal droppings. If contact does occur, thoroughly wash any skin or clothing that becomes soiled with goose or any animal droppings. If pets become soiled with goose or animal droppings, they should be thoroughly bathed before coming into contact with people.

People should avoid direct contact with sick or dead birds. If large numbers of dead or sick birds are discovered, call the Canadian Wildlife Health Centre at 1-800-567-2033 or Manitoba Conservation at 1-800-214-6497 or 945-7273 in Winnipeg.

Hunters

In some communities people hunt wild birds for food throughout the year. There are 14,000 licensed waterfowl hunters in Manitoba. With the potential that H5N1 avian influenza could arrive in North America this fall, hunters are reminded to take routine precautions:

- 1) Do not handle birds that appear sick or are found dead.
- 2) Wear disposable rubber or latex gloves while handling and cleaning game. Wash hands with soap and water after taking off the gloves or touching equipment. Alcohol based hand products can also work if hands are not visibly dirty. Completely clean knives, equipment and surfaces that come into contact with game.
- 3) Do not eat, drink or smoke while handling live or dead birds.
- 4) Thoroughly cook any bird intended for consumption (temperature should be 80°C or 170°F). Proper cooking kills this virus just as it does many other disease organisms and parasites.
- 5) Dispose of remains of birds after field dressing in a way that will prevent scavengers from coming in contact with the carcass or remains.

For more information, please visit www.gov.mb.ca/conservation/wildlife/faq/hunting

Stage 3 – Illness Detected in Domestic Poultry

The biosecurity measures followed by the poultry industry across Canada are expected to minimize and potentially prevent avian influenza from affecting their flocks. However, the risk isn't zero and it's important to plan for the possibility that domestic flocks could become infected. In this stage:

- The risk of avian influenza to people remains low. However, extra precautions will be put in place to protect poultry workers and others who may have direct contact with sick or dead birds.
- The risk to healthy domestic birds near the infected flock will rise. Extra precautions will be taken to prevent the infection from spreading.
- Eating poultry and poultry products is expected to remain safe because all products will be inspected. Proper cooking of poultry products will continue to be encouraged.

Control measures

Suspected cases of avian influenza must be reported to CFIA or to MAFRI's Office of the Chief Veterinarian and referred to the CFIA. If there is a confirmed case, CFIA will take the lead role in responding to the animal health aspects of the disease outbreak. The usual procedure would involve quarantining the area, destroying the infected flocks and testing neighbouring flocks to determine if the disease has been contained. MAFRI will support the disease control and eradication efforts of infected birds. Other provincial departments will also respond to manage an avian influenza outbreak.

Protecting People

People who are at risk of exposure to sick or dead birds will be advised on how to protect themselves by avoiding direct contact, using personal protective equipment and instituting personal hygiene measures. Vaccination and anti-viral medications may be recommended. For people who have been exposed to infected birds, public health officials will undertake measures such as increased monitoring and will advise on the use of anti-viral medications and vaccines.

Stage 4 – Human illness

Asian H5N1 has caused illness among one or more people, likely as a result of direct contact with an infected bird. In addition to providing appropriate health care, which may include anti-virals, all such cases will be reportable to Public Health. Public health officials will follow up and advise on appropriate actions to reduce the risk of further disease occurrence.

Control Measures

The protective measures outlined in stage three would continue to be enforced. Handling infected poultry should be left to individuals who know what to do and can take the necessary precautions.

Travelling and Imported Foods

The Public Health Agency of Canada issues travel advisories to warn travellers of potential outbreaks of diseases, including human and avian influenza. Check www.phac-aspc.gc.ca.

In addition, the Canadian Food Inspection Agency may prevent the import of live poultry, hatching eggs or poultry-based products from countries experiencing an avian outbreak. For information on food limitations, see www.inspection.gc.ca

Conclusion

It is important to understand there are different types of influenza and what potential impact an avian influenza would actually have in Manitoba. Even if "bird flu" occurs in wild birds, Manitoba's domestic poultry flocks are well protected by established bio-security measures and strong veterinary support services. However, it is still important to plan for the possibility of disease, which Manitoba is doing in concert with other governments and local organizations. In addition, control measures and co-operative efforts among governments to monitor and manage the disease will help to ensure the safety of domestic poultry products and protect human health.

In the months ahead, as Manitoba and Canada plan and prepare there will be more information to guide the response to a potential avian influenza outbreak.

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