

National Centre for Biosecurity and Infectious Disease Surveillance Research Project

Researchers from the National Centre for Biosecurity and Infectious Disease are undertaking a research project into avian influenza viruses in backyard poultry flocks.

The study is designed to improve understanding of how viruses move from wild birds to poultry and what circumstance (if any) lead to these viruses appearing in humans.

What are avian influenza viruses?

There are many strains (types) of avian influenza viruses, which are found naturally in many species of healthy wild birds, especially waterfowl such as ducks, geese and shorebirds. Most strains do not cause illness in birds and are not of human health concern.

Are there avian influenza viruses in New Zealand?

Thirty-five avian influenza viruses have been isolated and characterised in New Zealand over the past 15 years. All have been found in wild birds and all are harmless to birds and humans.

What about the H5N1 avian influenza strain (bird flu)?

H5N1 has not been found in New Zealand and the risk of it entering the country in migratory birds is low. Ministry of Agriculture and Forestry has been monitoring arriving migratory shorebirds since 1984. No highly pathogenic avian influenza virus has ever been found in New Zealand.

Human cases of H5N1 have been acquired mainly by people in very close and prolonged contact with poultry in live bird markets and poultry farms. In these situations there is a high density of different species of bird mixing and people are exposed to live and dead birds and their blood and droppings.

These conditions do not exist in New Zealand and there is little risk of people in New Zealand being infected through normal contact with birds.

What is the surveillance project?

The study will involve farms with backyard flocks of domestic poultry in two New Zealand regions, near the mouth of the Kaituna River in the Bay of Plenty and near Lake Wairarapa. These sites were chosen because they have waterways where wild birds congregate.

The researchers want to find out whether backyard flocks (chickens, ducks, turkeys, geese etc) in New Zealand can be infected with avian influenza viruses when exposed to, or if they share water sources with, wild birds. They also want to find out if, in the New Zealand setting, humans can be infected by avian influenza viruses when they have close contact with backyard flocks.

Who is involved?

The researchers want to recruit households with backyard flocks to take part in the study. Involvement is voluntary.

Two different groups will be recruited for this study; a cross sectional study group and cohort study group.

Samples will be taken from both householders and their backyard flocks. Information about farming practices and household hygiene will also be collected. Please see "information sheets for farmers" for more detailed information on the two parts of the study.

What happens if a virus is found in poultry?

Avian influenza (AI) viruses are naturally present in healthy wild birds, especially waterfowl (ducks and geese). To date all AI viruses identified in New Zealand have been low pathogenicity benign (harmless) viruses found in healthy mallard ducks. It is therefore most likely that any AI viruses found as part of this research, will be a benign virus which would not cause illness in poultry, wild birds or humans. Any such findings will be notified to study participants and fully explained by a veterinarian.

New Zealand is part of a global network for animal disease surveillance and must report the finding of avian influenza H5 and H7 subtypes (these are called notifiable avian influenza viruses) to world animal health bodies. If notifiable AI viruses are found as part of this research project, a follow up investigation will be required to confirm the findings. In this situation you will be contacted by a Biosecurity New Zealand veterinary investigator who will discuss the situation with you and arrange to visit your property to carry out further testing.

In the event of an outbreak of avian influenza in New Zealand Biosecurity New Zealand would respond under the Biosecurity Act in accordance with its Technical Response Policies for Avian Influenza Viruses of Regulatory Concern. A response to low pathogenicity notifiable avian influenza (LPNAI) will be measured, because LPNAI is not an immediate concern because it is not a human health risk.

What happens if a benign virus is found in a human sample?

New Zealand does not currently have any human illness caused by avian influenza viruses. If a virus is found in a human sample it is likely to be benign i.e it won't cause illness in humans.

Researchers will inform participants of the findings via their GP. The participant's medical history will be reviewed for the period when the specimen was taken and the correct medical action would be undertaken. Medical investigators would work closely with the participant's GP to ensure the correct clinical management and a clear understanding of the test results.

For more information on avian influenza visit www.biosecurity.govt.nz/pest-and-disease-response/pests-and-diseases-watchlist/bird-flu