

# Planning for an emergency

## – avian flu

*A Ministry of Health update*

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Open a newspaper and it hits you – another report that the H5N1 virus has been discovered in birds in another part of the world or, more disturbingly, the latest human death. While to date almost all deaths have been shown to be zoonotic and the affected countries have been many thousands of kilometres from New Zealand, the words ‘pandemic influenza’ have become a part of New Zealanders’ vocabulary.

A recent survey, commissioned by the Ministry of Health, found two-thirds of the 1000 people questioned had seen information on how to prepare for a pandemic and three out of five thought New Zealand was taking it seriously enough.

In New Zealand, work is well underway to prepare for a future influenza pandemic – the country’s first pandemic plan was set up in 1999 and provided the basis for our response to the SARS outbreak. The scope of the project is enormous. Government agencies are tackling issues as diverse as border control and quarantine management, aimed at trying to keep a pandemic out of New Zealand to school closures and emergency powers in the event of pandemic influenza arriving here. Other specific activities include work on patient pathways, the development of draft guidelines for mass vaccination and exploration of pharmaceutical related issues such as how to ensure continuity of supply of essential prescription medications.

These moves not only involve massive practical considerations but also raise a number of ethical and

legal issues. The National Ethics Advisory Committee has agreed to provide the Ministry with expert independent advice on these ethical issues. Their first task is to produce a pandemic prioritisation framework that will guide decision making for the health sector to help address potential issues, for example around the prioritisation of medicines.

The Ministry of Health is the lead agency overseeing much of the planning and is working on a range of levels from key messages aimed at the general public to specific advice for the health workforce. In March, a mail out to every household in the country began along with radio and television advertising about how to prepare for a pandemic. The key messages are based around the need to have a plan and build an emergency supplies kit, how to handle coughs and sneezes, and the importance of thorough hand washing.

Now, as the finer details of New Zealand’s plan are worked through, it is timely to consider the vital role of primary health care workers.

### Do we need to be worried?

The 20th century saw three pandemics of influenza, which killed millions of people worldwide. Although neither the exact timing nor severity can be predicted, it is certain that there will be another influenza pandemic.

Wild water fowl – ducks and geese – are the natural reservoir of influenza viruses and genetic analysis of the 1968 and 1957 viruses showed both were a re-assortment of avian and human genes. In contrast, the 1918 virus was an avian virus that mutated and was able to cross the species barrier without re-assortment.

Since 2003 a zoonosis, H5N1 avian influenza – which seems to have a mortality rate greater than 50% – has been confirmed in 173 people and caused 107 deaths by April 2006.

The H5N1 virus has spread around the world, from its first appearance in bird populations in South China to East and South-East Asia, the Middle East, Europe and now Africa and the Indian sub-continent. Human cases

have occurred in China, Vietnam, Cambodia, Thailand, Indonesia, Turkey and Iraq.

Dr Andrea Forde, the Ministry of Health’s senior advisor public health medicine

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and Chairperson of the Pandemic Influenza Technical Advisory Committee (PITAG) describes the discovery of the H5N1 virus in birds in Nigeria as a major setback. Most birds are farmed in backyards, not large commercial settings, and a lack of both animal and human health infrastructure and surveillance means the virus will spread quickly and make containment very difficult if not impossible.

The World Health Organization is increasingly concerned that it may be only a matter of time before this virus acquires the ability to spread easily from human to human.

As part of its preparation for pandemic influenza, the Government has secured a stockpile of the antiviral, Tamiflu, enough for about 21 per cent of the population to be treated. The final decisions about the use of this national reserve cannot be made until the nature of the pandemic disease is known. But it will be used to support the key aims of New Zealand's Pandemic Action Plan, which are to keep it out (border management), stamp it out (cluster control) and to manage it (pandemic management).

Usage policies and any necessary prioritisation criteria will be determined on a national basis, and DHBs and their Public Health Units will be responsible for implementing these policies. In general, antivirals are expected to be used for the treatment of people who become ill with influenza, but limited post-exposure prophylaxis may be provided in the border management and cluster control phases.

In the 'manage it' phase it is expected that delivery of antivirals will occur principally through Community Based Assessment Centres (CBACs), which will provide the primary care surge capacity required to manage a sudden increase in demand during a pandemic. The reserve supplies of Government stockpiled antivirals will not be distributed via retail pharmacies or be available on individual GP prescription.

Although final policies cannot be established until the nature of the disease is known, it is reasonable to anticipate that front-line health workers and other critical workers such as Police and Defence Force personnel will have access to the national

reserve of antivirals, should they become ill.

The Ministry of Health has also secured a contract to supply eight million doses of pandemic vaccine. Vaccine production cannot start, however, until the pandemic virus is itself identified. That means a targeted vaccine is unlikely to be immediately available.

### So what will a pandemic mean for primary health care workers?

Dr Jim Primrose, the ministry's chief advisor for general practice, says the way GPs, nurses and other primary health care professionals work in a pandemic will be fundamentally different. While there has been recognition that hospital services will not cope if the pandemic is the size of 1918, there has been less recognition that primary health care will also struggle to meet the demands for care.

The ministry is basing its planning around a possible scenario where 40 per cent of the population become ill and there are 33 000 deaths over just an eight week period.

Services will not only be overloaded but the health workforce will be severely reduced due to illness, absenteeism or staff needing to stay home to look after their own families.

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Mark Jones, the ministry's chief nursing advisor, envisages nurses taking an active role in the management of Community Based Assessment Centres (CBACs) and in the co-ordination of a community re-

sponse, for example advising people how to look after ill family members at home. Nurses' expertise in passing on health promotion messages, such as advice on hygiene would be aimed at reducing the risk of transmission, and they would of course have a key role in any mass vaccination campaign.

### Phases

- Plan for it
- Keep it out
- Stamp it out
- Manage it
- Recover from it

### Key areas for practices

#### Community

- Understand the networks and resources in your local community

#### Patients

- Reinforce prevention and self care messages

#### Practice

- Plan for 'index case'
- Enhance infection control
- A safe work environment

While the Ministry of Health is responsible for coordinating the national response to a pandemic, district health boards are working on plans for their populations. DHBs have also been asked for feedback on the feasibility of setting up CBACs, which would be responsible for the rapid assessment and triage of people affected by pandemic illness.

But CBACs will not be realistic for all parts of the country and what might work in a large, urban community will be different from what will work in a small, rural community.

It is important that plans are devised to meet the specific needs of each population – that might mean a GP surgery finding a way to separate patients with flu-like symptoms from others visiting for other illnesses or chronic conditions. In some areas it may be appropriate that one practice sees people with influenza, while the other practices are kept 'influenza free'.

GPs and health workers need to be alert to the fact they may be the ones to handle New Zealand's first 'index case' and will need to think about how their practice would manage this. Staff need to know the measures they can take to reduce the risk of infection to themselves, their families and patients. The need for heightened precautions will also have to be communicated with patients.

While responses will need to be adapted based on circumstances, the key messages will remain constant.

Primary health care workers will need to reinforce the message that the vast majority of people who get pandemic influenza will recover and the best place for most of them to do that is at home.

A ministry-convened advisory group of GPs, nurses, emergency medicine, intensive care and infectious disease specialists as well as ministry representatives is working on the development of clinical pathways for the care of people with suspected or confirmed cases of pandemic influenza. This guidance is intended to ensure that, where possible, there will be nationally consistent clinical decision-making. It will include advice on the use of secondary care and intensive care services as well as Community Based Assessment Centres.

Khandallah GP, Dr Sally Talbot, a member of the ministry's advisory group on clinical pathways and surveillance, says in a pandemic many people could resort to their usual 'comfort zone' and show up at hospital emergency departments or GP surgeries. But she says patients should be encouraged to phone Healthline or their GP first to minimise the risk of spreading pandemic influenza if they are sick.

The Ministry of Health appreciates the huge contribution that health professionals have made to the pan-

demical planning work that has been required over recent months. The contribution of the Royal New Zealand College of General Practitioners has been of particular value.

Because the major burden will fall on communities, Primary Health Organisations, working with their local district health boards, will need to look at how they can assist people to look after themselves and their family at home. They also need to understand the networks available in their local community for helping isolated people and those with no social supports.

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In a pandemic, basic messages around the importance of hygiene will need to be continually reinforced with both patients and staff. Many practices have already displayed posters with these key messages and distributed pandemic influenza pamphlets to their patients. The current national advertising campaign complements these messages and will assist New Zealanders to prepare for a pandemic.

GP practices should review their own infection control procedures and ensure they are well known by all staff. They will also need to be aware of their obligation to provide a safe and supportive working environment for staff.

Encouraging staff to have the seasonal influenza vaccine is also a good idea.

Many PHOs have been working with GP practices and others from

across the primary care sector, such as pharmacists, district nurses and public health workers to develop pandemic plans for their populations. They have also begun linking in with district health boards to coordinate plans for their regions.

Dr Tim Harvey, manager of clinical quality for Pegasus Health, says in Canterbury representatives of the print and broadcast media have been involved with local planning rather than being 'pushed away' – something he believes gives the media a sense of responsibility for what goes on.

DHBs and PHOs around the country have begun looking at how CBACs would work based on different levels of pandemic intensity. What facilities could be used and where could people stay if they are not able to look after themselves at home?

New Brighton GP, Dr Kim Burgess, says in a pandemic the health workforce will attempt to meet the needs of all sick people but will need to focus on the people he calls 'flu-plus'. These are people with flu and other complications who would benefit from medical interventions such as antibiotics or intravenous fluids or those with flu whose chronic conditions have worsened.

A multi-media teaching package about pandemic influenza developed by the Immunisation Advisory Centre at Auckland University is available for primary health care practitioners. This provides a valuable resource as we all grapple with the challenge of preparing for pandemic influenza and can be seen at: [www.immune.org.nz](http://www.immune.org.nz)

### Competing interests

None declared.

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#### For more information on pandemic influenza go to:

The Ministry of Health: [www.moh.govt.nz](http://www.moh.govt.nz)

The World Health Organization: [www.who.int](http://www.who.int)

USA CDC: [www.cdc.gov](http://www.cdc.gov)

The World Organisation for Animal Health: [www.oie.int](http://www.oie.int)

Food and Agricultural Organisation of the United Nations: [www.fao.org](http://www.fao.org)

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