

Valuable lessons learned from Exercise Virex

Valuable lessons about how to manage a situation where thousands of people die from a deadly strain of influenza are being learned by New Zealand's Ministry of Health and District Health Boards following a month-long nationwide emergency exercise.

The Ministry of Health's mock emergency, known as Exercise Virex, ended on February 14 and involved around 400 participants, exercise director Robyn Fitzgerald said.

'The purpose of the exercise was to update New Zealand's Influenza Pandemic Preparedness Plan so the country is as prepared as it can be for an influenza pandemic.

'No one in the world could ever be entirely ready for a pandemic but after holding this exercise we have identified the areas we need to work on. I am reassured New Zealand's health workforce is now better prepared to minimise disruption and death.'

An influenza pandemic is one of the biggest threats to public health; and if one were to strike, it could come with minimum warning, cause high rates of death and illness, and require a well coordinated national and regional response.

During Exercise Virex, an influenza pandemic scenario was drip-fed to participants over a month, mimicking the way an influenza pandemic might evolve in New Zealand. Participants received their last instalment of the scenario on February 14 and by then the hypothetical event had reached disaster proportions.

'The scenario didn't paint a pretty picture of the pandemic on February 14; hundreds of people were dying, hospitals were having to manage large numbers of patients while coping with reduced staff, and various public events were being cancelled.'

Mrs Fitzgerald said the new information for participants came with challenging questions for participants asking how each region would respond to the latest hypothetical events. 'Participants had three hours to come up with answers appropriate to their region, using their available resources.'

District Health Boards and Public Health Services took the exercise very seriously, and some participants consulted with various community groups on how they would respond, she said.

'We were very impressed with the level of urgency attached to this exercise. Many sound and innovative ideas were submitted by exercise participants. They appreciated the realism of the exercise and fully absorbed the potential for disaster.'

On February 14 participants also had to contend with a mock media corps provided by 24 students from Massey University's School of Journalism.

'The Ministry of Health wanted to make this exercise, which took nine months to plan, as real and as true-to-life as possible.'

Dr Bob Boyd, the Ministry of Health's Chief Advisor for Safety and Regulation, reviewed the planning, conduct, and control of Exercise Virex and the response to the emergency. His report is available on the Ministry's web site (<http://www.moh.govt.nz/moh.nsf>).

National Pandemic Planning Committee chairman Dr Lance Jennings was scheduled to present a paper about Exercise Virex to infection control specialists in Australia in February, followed by a similar presentation by Mrs Fitzgerald at an Australian Disaster Medicines Group meeting in April.

Mrs Fitzgerald said Exercise Virex was a unique exercise that took nine months to plan. 'Not many countries are small enough to be able to test a national influenza pandemic plan. International interest has been expressed from World Health Organisation members from Australia, Europe and the United States of America.'

Why did the Ministry of Health hold Exercise Virex?

The world will experience another influenza pandemic in the foreseeable future. It could occur at any time. Everyone worldwide is at risk and New Zealand would almost certainly be affected by an influenza pandemic.

Because of this, the Ministry of Health has continuously updated its Influenza Pandemic Preparedness Plan. With the culmination of Exercise Virex the plan has been properly tested and will now be updated again and made more robust.

What is the purpose of the plan?

The purpose of the plan is to minimise the impact of an influenza pandemic on New Zealand.

The plan includes methods for the detection and management of a pandemic influenza in New Zealand. It details surveillance techniques and guidelines for the use of vaccines and anti-virals.

Who took part in Exercise Virex?

Ministry of Health staff

District Health Boards

Medical Officers of Health/Public Health Services

National Pandemic Planning Committee

A simulated media corps made up of Massey University School of Journalism students

Who did the Ministry of Health invite to watch?



Thoracic Society, NZ Ambulance Service, NZ Blood Service, Department of the Prime Minister and Cabinet, Minister of Health, Civil Defence and Emergency Management, New Zealand Police, Ministry of Defence, Coroners Office, Wellington, BioSecurity, College of General Practitioners, New Zealand Nursing Council, Medical Council, Australian/New Zealand Society of Microbiologists, Institute of Environmental Science and Research, Ministry of Health Chief Advisers and Executive Team, Australian influenza pandemic experts, GlaxoSmithKline, Roche.

What was the scenario?

In brief, the scenario starts on 20 December 2001 as the World Health Organisation receives reports from the fictitious country of Wellsun about an influenza-like illness affecting people in a large city. Flocks of chickens have also been affected by an undiagnosed illness in the country and the Center for Disease Control in Atlanta investigates the situation.

On 3 January 2002, an influenza virus is isolated in Hong Kong from a 40-year-old female patient. She dies following admission to intensive care with severe symptoms of influenza and respiratory failure. The woman had been ill with influenza-like symptoms for two days before arriving in Hong Kong from Wellsun in December.

Over the next few days, the World Health Organization Pandemic Taskforce declares a Pandemic Alert and countries around the world including New Zealand are asked to assist the WHO by activating their surveillance networks.

From here, the situation worsens and overseas high numbers of people are dying from the virus. In New Zealand, the Ministry of Health is already working closely with the National Pandemic Planning Committee. At this stage the virus is confined to Wellsun and Hong Kong.

However, by 20 January 2002 the virus has spread to Singapore. This causes the WHO to declare the onset of a new pandemic.

By 30 January 2002 there are confirmed outbreaks of the virus in New Zealand, Australia, Canada, the United Kingdom and Fiji. In New Zealand the first case is identified in a nurse who had been working in Australia but had come back to New Zealand for a holiday.

In response, the Director-General of Health, acting on behalf of the Minister of Health, gives written authorisation to Medical Officers of Health to exercise special powers for the purpose of lessening the impact of an influenza pandemic.

In the first two weeks of February, various events in New Zealand are threatened by the pandemic, including Waitangi Day celebrations and a number of festivals. Auckland is starting to report increased levels of influenza-like illness. Adding to the problems are the number of health workers succumbing to the virus.

By February 9, almost 30 percent of New Zealand's health care workforce has been

forced to stay at home to recuperate and by February 12 that figure has leapt to 50 percent. In the week ending February 8 practitioners who are part of the surveillance network are reporting 700 cases of influenza-like illness per 100,000 population.

By 14 February 2002, mortality among hospitalised patients has reached 30 percent, placing considerable pressure on the country's morgue facilities.

At the same time New Zealand was identifying what assistance it could provide South Pacific nations and preparing itself for the probability of a second pandemic occurring and the issues arising.

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