

## INTRODUCTION

Influenza constitutes an ongoing and worldwide threat to public health because of its ability to spread rapidly through populations. During inter-pandemic periods, influenza viruses that are related to those from the preceding epidemic circulate. The viruses spread among people with varying levels of immunity from infections earlier in life. Such circulation usually occurs over a period of two to three years and promotes the selection of new strains, which have changed enough to again cause an epidemic among the general population.

Influenza pandemics are typically characterised by the rapid spread of a novel type of influenza virus to all areas of the world, resulting in unusually high morbidity and deaths for approximately two to three years. Factors that need to be present for a pandemic to occur include: the emergence of a new viral subtype; the capacity for the virus to spread efficiently from person to person; and being virulent enough to cause disease.

Pandemics occurred during 1918, 1957, and 1968 with a pseudo-pandemic occurring in 1977. The influenza pandemic (Spanish flu) of 1918/19 was the most severe with an estimated 50 million deaths worldwide primarily in young adults.

## ASSUMPTIONS

1. An influenza pandemic is inevitable.
2. There will be very little warning. Most experts believe that we will have between one and six months between the time that a novel influenza strain is identified and the time that outbreaks begin to occur in New Zealand.
3. Outbreaks are expected to occur simultaneously throughout much of New Zealand, preventing shifts in human and material resources that normally occur with other natural disasters.
4. The effect of influenza on individual communities will be relatively prolonged -- weeks to months -- when compared to minutes-to-hours observed in most other natural disasters.
5. The impact of the next pandemic could have a devastating effect on the health and well being of the New Zealand public. CDC estimates that in Hawkes Bay alone, over a course of 2 to 3 months:
  - Up to 53 thousand people will become clinically ill
  - Up to 25 thousand people will require primary health care
  - Up to 600 people will be hospitalized
  - Up to 1060 people will die
6. Effective preventive and therapeutic measures -- including vaccines and antiviral agents -- will likely be in short supply, as well as antibiotics to treat secondary infections.
7. Health-care workers and other first responders will likely be at even higher risk of exposure and illness than the general population, further impeding the care of victims.
8. Widespread illness in the community will also increase the likelihood of sudden and potentially significant shortages of personnel in other sectors who provide critical community services: police, firemen, utility workers, and transportation workers, just to name a few.

No one knows the timing or size of the next pandemic, but it makes sense to prepare for this possibility.

- Have a plan and talk to friends and family about their plans. Think about including a telephone tree of people you will want to contact if you become sick.
- Make sure you have an emergency survival kit. You can find out more about essential items for this kit from the Civil Defence advertisement in the front of the Yellow Pages. Plan for having about a week's worth of essential supplies such as non-perishable food, as well as plenty of fluids. You may need these supplies if you are too sick to leave your house.

## ADVICE ON INFECTION CONTROL MEASURES

Influenza viruses are easily passed from person to person through coughing and sneezing by infected individuals. The virus enters the body through the nose and throat and it can then take between 1 to 4 days before symptoms appear. Adults are usually infectious (i.e. able to pass the virus on to others) from the day before symptoms appear through to 5-7 days afterwards. Children can be infectious for more than 10 days after the onset of symptoms and severely immunocompromised people (people with existing conditions which impair their body's immune response to infection) can shed virus for weeks or months after symptoms begin.

People who know or suspect that they have influenza should observe the following precautions until 7 days after they develop symptoms (10 days in children):

1. Stay indoors and keep contact with others to a minimum until the resolution of symptoms.
2. Frequent handwashing with liquid soap rather than bar soap, especially after contact with nose, mouth and respiratory secretions e.g. after coughing. Use disposable tissue to dry hands. Used tissues must be carefully discarded.
3. Family members should practice handwashing frequently and avoid touching the eyes, nose and mouth with their hands.
4. Avoid close contact with family members (e.g. kissing, hugging).
5. Avoid sharing food, eating utensils and towels with family members.
6. Maintain good ventilation at home.
7. These precautionary measures should be adopted until the resolution of symptoms.
8. Telephone your GP if condition deteriorates and any further symptoms develop.

Placing a standard surgical mask on someone who is sick will help reduce the spread of influenza infection.

People who are not sick and who are closer than one metre to the person who is coughing and sneezing may also get some protection by covering their own nose and mouth with a mask.

- Include paracetamol (for fever) in your home emergency survival kit.
- Talk to your family and friends about personal hygiene – regular hand washing and drying, and covering coughs and sneezes with a tissue. Dispose of the used tissue in a rubbish bin.
- If you have children, think about activities or games you can have in the house to keep them occupied if you need to stay at home and away from crowds for any length of time.