



Eketahuna School's

5.1.8 Pandemic Plan

Emergency Procedures

Health: Pandemic Procedure

Rationale:

Eketahuna School has an agreed procedure to follow if ever a pandemic alert occurred.

Note:

This pandemic procedure is specific to an influenza / Bird Flu type incident. Should a pandemic alert occur which is not of this type the school will adopt and amend the steps / documents detailed herein to deal with incident appropriately.

Contents

Health: Pandemic Procedure	1
Why A Need For A Pandemic Procedure?	3
Background Information	3
Pandemic Management Team (PMT) will:	3
Communication with the school community	4
1. Best practice guidelines for hand hygiene.....	5
A. Hand hygiene notices	7
B. Screening flowchart	10
C. Influenza staff notice 1	11
D. Influenza student notice 2	12
E. Closure notice	13
F. Suspected Influenza Notification Form	14
G. Contact list	15
H. Personal Protective Equipment (PPE)	16
I. Eketahuna School	17
J. Contact details	18
K. Eketahuna School	19
L. The difference between influenza and a common cold	20
2. Background information on influenza pandemic	21
3. Pandemic planning scenarios	26
4. Sample decision making and communication tree	28

Why A Need For A Pandemic Procedure?

- To ensure that as a community we have a pandemic plan in place as a component of our emergency planning.
- To ensure that we maintain as full a service as possible for as long as possible during a pandemic emergency (consistent with State Services Commission Guidelines).
- To consider alternative means of delivering education to our students (for example, distance learning options) during such an event.
- To ensure that Eketahuna School is part of New Zealand's National Health Emergency Plan to help prevent the influenza spreading. School closure aims to reduce close contact between children (children have been known to remain infectious for up to 21 days whereas the risk period is only eight days for adults). Closures do not mean facilities would be closed for quarantine. Staff may still go to work, work remotely or carry out additional or alternative duties for their employer or another agency.
- To understand that a pandemic may come in several waves over a 6-8 month period. At the peak of the worst pandemic wave, up to 50% of the workforce may be sick, looking after sick dependants or carrying out 'alternative duties' in priority areas for their employer or another agency. (such as health or welfare roles).

Background Information

- It is not possible to predict how long a pandemic may last.
- State sector employees will be paid their normal salary during a pandemic, provided, with their employer's pre-approval, they : come to work in their usual workplace (with rigorous personal hygiene, social distancing and cleaning regimes in place.): work remotely (for example from home); carry out additional or alternative duties for their employer or another agency.
- State sector employees will be expected to use their leave entitlements (sick, domestic, annual or other, with ability to anticipate some sick leave.) if they are sick or looking after sick dependents during a pandemic emergency. An employee who contracts pandemic influenza may be sick for up to two weeks. When sick leave entitlements and advances are exhausted, State Services employers may provide additional paid special leave during Stages 2 and 3 of a pandemic but only where this will contribute to preventing the arrival or spread of a pandemic. For an approach to leave usage during a pandemic see the State Services Commission.
- In the event of a pandemic or the possibility of a pandemic the principal (or delegate) supported by senior staff and the BoT staff representative will manage the pandemic or likelihood of a pandemic.

Pandemic Management Team (PMT) will:

1. Establish a system to monitor staff who are ill or suspected of being ill, including contacting staff who are unexpectedly absent from work: – has their doctor been notified of their illness? Have they been in contact with anyone?

2. Ensuring Eketahuna School has adequate supplies of tissues, medical and hand hygiene products, cleaning supplies and masks.
3. In the event of a pandemic Eketahuna School will liaise closely with the Public Health Nurse.

Communication with the school community

It is likely there will be anxiety during a pandemic and this is likely to contribute to increased absence and/or increased stress to the Board of Trustees, staff, parents/whanau and students. Accordingly we will:

- Communicate early the possibility of a pandemic and Eketahuna School's preparedness to manage it – to the board, staff, students, parents and whanau. Ministry of Health influenza advice might be useful.
 - Discuss with staff possible health and safety issues, and leave arrangements for them if they are ill or need to look after dependents.
 - Have a comprehensive plan (which will be developed by the PMT in consultation with the PHN) in place which is clearly communicated to the board, staff, students, parents and whanau. Ensure that communications management during the pandemic is part of the plan. It will be important to have systems in place to allow our school to communicate effectively in a pandemic.
 - In activating the plan, provide clear, timely and pro-active communications to the board, staff, students, parents and whanau explaining how our school is handling the situation.
1. Establish a “communications tree” for our school to circulate important messages. We have considered how we will maintain communication:
 2. ☎with: board, staff, student, parents and whanau
 - ☎other schools in our area/cluster
 - ☎relevant agencies and community support networks
 - ☎key suppliers and contractors.

1. Best practice guidelines for hand hygiene

Effective hand washing and drying routines are a primary means of reducing infections in students and staff.

Many diseases causing virus and bacteria are carried on hands and can be passed from person to person through direct contact with the person's hands or through objects or food that the person has touched.

Students should be encouraged to take responsibility for their own hand washing and drying but to do so they need a supportive environment.

Recommended technique for good hand hygiene practice

- Wet hands, preferably with warm water and apply liquid soap
- Rub hands vigorously together and rub all areas
- Wash for 20 seconds (about the same time as it takes to sing Happy Birthday)
- Rinse well and dry hands thoroughly, the following examples are considered thorough:
 - 20 seconds by paper towel (2 towels 10 seconds on each towel)
 - 20 seconds by clean roller towel
 - 45 seconds by air dryer
 - 10 seconds by towel followed by 20 seconds by air dryer

Times when hands should be washed

- After coughing or sneezing (when the hands have been used to cover the mouth or nose)
- After using the toilet or after handling animals
- Before, during and after the preparation of food
- When hands are dirty
- More often if someone is sick

Rationale and tips for use of:

Liquid soap

- Lowers the likelihood of the transfer of infection from person to person.
- Wall mounted dispensers are preferable to hand held dispensers.
- Pump action dispensers help reduce soap wastage.
- Research the best soap and dispenser deal, getting a free dispenser from a supplier might be a good option, but beware of deals that lock you into higher priced bulk soap.

Paper towels

- Lower the likelihood of the transfer of infection from person to person.
- To make these more economical, half-sized paper towels are available that can be used with standard dispensers.
- Research the best towel and dispenser deal.

Roller towels

- Ensure these are the type that roll and retract once used to avoid spread of infection.
- Younger students may find these difficult to use.

Air dryers

- Hands must be dried thoroughly to stop the spread of infection (takes approx 45 seconds).
- Younger students may find air dryers frightening to use.

Warm water

- Warm water is preferable to cold water.
- Providing warm water improves compliance of people washing their hands at all. What proportion of students will put their hands under ice-cold water in the winter?
- If warm water is supplied, it must not exceed a temperature of 40°C.

Wash troughs

- A long stainless steel wash trough has several advantages over basins that make them economic to install and maintain.
- A wash trough with enough space for five students to use only takes the space of three wash hand basins.
- By having temperature controlled warm water (40°C maximum), you only need warm water taps, not cold taps. This means for example, five taps for five students instead of six taps for three students.
- A wash trough only needs one waste outlet. Three basins need three outlets.
- Wash troughs are easier to clean than multiple hand basins.

A. Hand hygiene notices

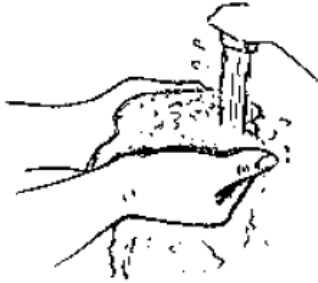
PROTECTING YOURSELF AND OTHERS AGAINST RESPIRATORY ILLNESS

HANDWASHING IS THE MOST IMPORTANT THING YOU CAN DO TO PROTECT YOURSELF

- Cover your nose and mouth when coughing or sneezing
- Use a tissue and dispose of this once used
- Always wash hands after coughing and sneezing or disposing of tissues
- Keep your hands away from your mouth, nose and eyes.
- Avoid contact with individuals at risk (eg, people with underlying or chronic illnesses such as immune suppression or lung disease) until the influenza-like symptoms have resolved.
- Avoid contact with people who have influenza-like symptoms.
- Ask students to use a tissue and cover their nose and mouth when coughing or sneezing and to wash and dry their hands afterwards.

Hand Hygiene with Soap and Water

**1. Remove jewelry.
Wet hands with warm
water**



2. Add soap to palms



**3. Rub hands
together to create a
lather**



**4. Cover all surfaces of
the hands and fingers**



**5. Clean knuckles,
back of hands and
fingers**



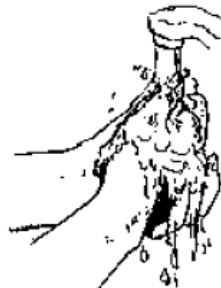
**6. Clean the space
between the thumb
and index finger**



**7. Work the finger tips
into the palms to
clean under the nails**



**8. Rinse well under
warm running water**



**9. Dry with a single-
use towel and then
use towel to turn off
the tap**



Minimum wash time 10-20 seconds.

Hand Hygiene with Alcohol-based Hand Sanitizer

1. Remove jewelry. Apply enough product to open palms.**



2. Rub hands together palms to palms



3. Rub in between and around fingers



4. Cover all surfaces of the hands and fingers



5. Rub backs of hands and fingers. Rub each thumb.



6. Rub fingertips of each hand in opposite palm



7. Keep rubbing until hands are dry.

****The volume required to be effective varies from product to product. Enough product to keep hands moist for 15 seconds should be applied.**

Do not use these products with water. Do not use paper towels to dry hands.

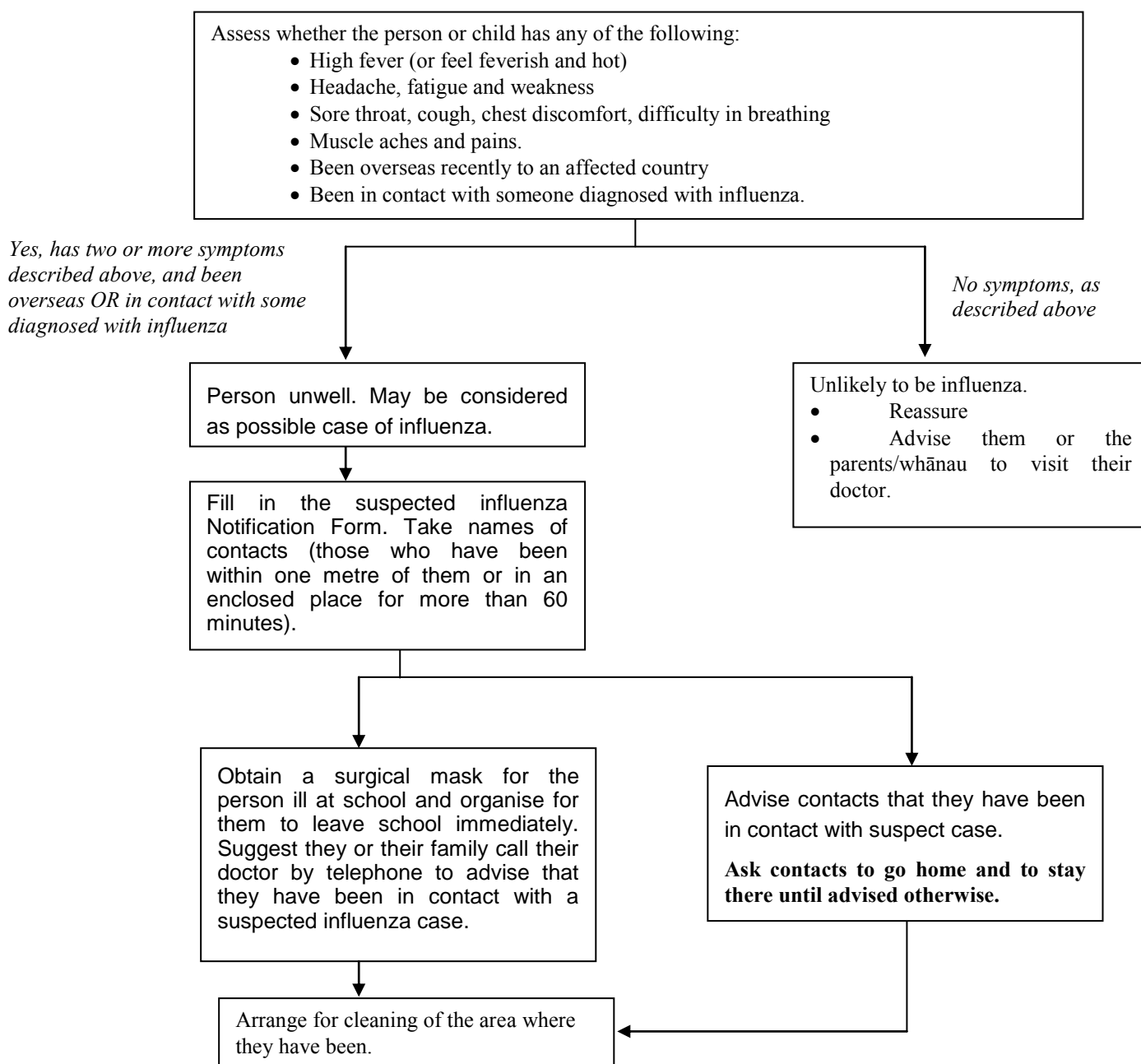
Note: Wash hands with soap and water if hands are visibly dirty or contaminated with blood or other body fluids. Certain manufacturers recommend washing hands with soap and water after 5-10 applications of gel.

B. Screening flowchart

For detection and management of suspected pandemic influenza cases

Process

1. Your school's influenza manager receives a call from a person suspecting they may have influenza, or from a staff member who has noticed a child who may be ill.
2. Avoid contact with the sick person if possible and manage the process over the telephone.
3. For someone at the school who is ill, follow the flowchart below:



INFLUENZA NOTIFICATION

Influenza is a contagious disease.

There is currently an increase in the numbers of people in New Zealand with influenza. To prevent the spread of influenza here:

DO NOT ENTER if you have:

- chills, shivering and a fever (temperature above 38°C)
- onset muscle aches and pains
- sore throat
- dry cough
- trouble breathing
- sneezing
- stuffy or runny nose
- tiredness

If you start to feel ill at school or are showing any of the symptoms listed above,
DO NOT leave your area.

Call the influenza manager

..... Phone ext.....

INFLUENZA NOTIFICATION

Influenza is a contagious disease.

There is currently an increase in the numbers of people in New Zealand with influenza.

To prevent the spread of influenza in this school, you must **tell your teacher** if you have any of the following flu symptoms:

- chills, shivering and a fever
- onset of muscle aches and pains
- sore throat
- dry cough
- trouble breathing
- sneezing
- stuffy or runny nose
- tiredness

SCHOOL CLOSED

DUE TO THE INFLUENZA PANDEMIC,
THIS SCHOOL IS CLOSED UNTIL FURTHER
NOTICE

Eketahuna School

DO NOT ENTER

For urgent enquiries, contact

F. Suspected Influenza Notification Form

Details of Affected Staff/Students

Name:	Site:	Location of isolation:
Job title:	Nationality if visitor to site:	Date of birth: (optional)
Address:		
Telephone no: _____ (W) _____ (H) _____ (M)		
Symptoms noticed:		
Fever <input type="checkbox"/>	Body aches <input type="checkbox"/>	
Headache <input type="checkbox"/>	Fatigue <input type="checkbox"/>	
Dry cough <input type="checkbox"/>	Others <input type="checkbox"/>	Details: _____
Cold <input type="checkbox"/>		
Time of fever on-set: _____		
Time of isolation: _____		
Travel history over the past eight days:		
Countries visited _____		
Flights taken: _____		
Where referred:		
Contact List (See separate page)		

Where referred:
Contact List (See separate page)

Details of Reporter

Name:
Job title:
Telephone no:

G. Contact list

The Ministry of Health currently defines pandemic influenza contacts as people who have had close physical (less than one metre), or confined airspace contact with an infected person, within four days of that person developing symptoms. These are likely to include family members and/or other living companions, workmates, other students in the class/school (if in close contact situations or confined airspace environments), and some recreational companions.

Note that the definition of a contact is likely to change once the nature of the pandemic strain is known. Schools should refer to the [Ministry of Health](#) website during a pandemic for up-to-date guidance.

Retain this list and provide to the Medical Officer of Health or his/her designated officer on request.

People the affected person has interacted with since displaying symptoms			
Name	Email	Telephone number	Address
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

H. Personal Protective Equipment (PPE)

Guidelines

The [Department of Labour](#) and [Ministry of Health](#) websites have guidelines which may help you decide on appropriate personal protective equipment to protect staff and children in your school. The Department of Labour also has an article about [Personal Protective Equipment \(PPE\) and practices and influenza pandemic preparedness](#).

Suggested list

The following generic list approved by the Department of Labour can be used as a starting point for your pandemic preparations. It is an 'over-the-top' list to cover all contingencies. Eketahuna School will work towards stockpiling the following.

Emergency Pandemic Supplies
<i>Suggested list - stock pile supplies for one to two weeks</i>
Breathing mask (box 50) 3 per person per day
Eye goggles (1 per staff dealing closely with sick person)
Latex / non-latex gloves (100s) 10 per staff per day
Disposable apron for staff (1 per staff per day)
Tissues (box 200) 3 boxes per person per week
Paracetamol (box 20) 1 box per adult per week;
Paracetamol (suspension) 50mls per child per week
Disinfectant (2 litres) 1 bottle per 15 people per day
Janola (2 litres) 1 bottle per 15 people per day
Cleaning fluid (1 litre) 1 bottle per 15 people per day
Toilet paper minimum 2 rolls per person per week
Paper towels (2 packets per person over 3 weeks)
Carton of Chux Cloths
Liquid soap/alcohol wash (1 litre)

Staff education and training undertaken as part of First Aid certificate courses attended.

- preventative guidelines
- staff awareness
- documentation.

I. Eketahuna School

Letter to parents/caregivers: introduction to pandemic planning

Dear Parents / Caregivers

Most of you will be aware that a '**bird flu**' virus, H5N1, is currently affecting birds and small numbers of people in countries overseas. Most of the people affected by the virus work with or live close to infected birds. Because New Zealand is off the flight paths of most migratory birds, the current spread of the virus is not seen as a big threat to our country.

But international health experts are concerned that the virus could mutate to pass easily between humans, leading to a global pandemic.

The government is preparing plans to protect the country from a possible influenza pandemic. As part of this nation-wide planning, schools have been asked to prepare their own pandemic plans.

Our school has an **emergency management plan** that covers most emergencies, such as fire and earthquake. Using resources provided by the Ministry of Education, we are now updating our emergency management plan to include plans for coping with a pandemic.

We will keep you informed as our **pandemic plan** develops. Meanwhile, you can reduce the risk of your child catching influenza:

- Teach your children the importance of hand washing – especially before meals and after toileting.
- Teach your children to use a disposable tissue when coughing or sneezing.
- Keep your children at home if they have the flu.

An important part of emergency planning is ensuring we have **up-to-date contact details** for all students and staff. Please ensure that you **complete and return the attached form**. Your personal details will not be used for any other purpose other than in the context of emergency management.

Find out more about pandemic planning and 'bird flu' on these websites:

www.moh.govt.nz/pandemicinfluenza and
www.minedu.govt.nz/goto/pandemicplanning .

If you have any questions or concerns at this stage, please contact me directly.

Yours sincerely

Nick Beamsley
Principal

J. Contact details

Please take time to fill out this form with up-to-date contact details for you as parents/caregivers of your child (or children) at school. Please also provide two local emergency contacts of people your child knows (eg, family/friends) who could take care of your child in an emergency:

Date: _____

Family name: _____

Name(s) of child (ren): _____

1. Parent/caregiver: _____

Home phone: _____

Work phone: _____ **Mobile phone:** _____

2. Parent/caregiver _____

Home phone: _____

Work phone: _____ **Mobile phone:** _____

3. First emergency local contact (eg, friend or family member):

Name _____

Home phone: _____

Work phone: _____ **Mobile phone:** _____

4. Second emergency local contact (eg, friend or family member):

Name _____

Home phone: _____

Work phone: _____ **Mobile phone:** _____

Dear Parents / Caregivers

The government has announced that New Zealand is stepping up its pandemic influenza response plans. This means that the situation overseas has changed and New Zealand's borders have been tightened in an attempt to stop the virus getting here.

Our school is talking with health and civil defence officials and we have been advised that there is no reason for alarm. Our school will remain open until further notice. Our own pandemic plans mean that we have systems in place to help us cope if anything changes.

The most important thing you can do as parents and caregivers is reinforce healthy messages:

- Teach your children the importance of hand washing and drying – especially before meals and after toileting.
- Teach your children to use a disposable tissue when coughing or sneezing.

We ask that all children showing flu like symptoms be kept home until checked and okayed by a doctor or nurse to return to school. **The symptoms of influenza and how they differ from common cold symptom are included with this letter.**

Our school is updating our **emergency contact details** for all students and staff. Please **complete the attached form and return it to your child's classroom teacher.**

The board of trustees and I are working closely with staff to ensure that all students at our school are kept as safe as possible.

If you have any questions or concerns please contact me directly. Thank you.

Yours sincerely

Nick Beamsley
Principal

L. The difference between influenza and a common cold

SYMPTOM	INFLUENZA	COMMON COLD
Fever	Usual, sudden onset 38°-40° and lasts 3-4 days.	Rare
Headache	Usual and can be severe	Rare
Aches and pains	Usual and can be severe	Rare
Fatigue and weakness	Usual and can last 2-3 weeks or more after the acute illness	Sometimes, but mild
Debilitating fatigue	Usual, early onset can be severe	Rare
Nausea, vomiting, diarrhoea	In children over 5 years	Rare
Watering of the eyes	Rare	Usual
Runny, stuffy nose	Rare	Usual
Sneezing	Rare in early stages	Usual
Sore throat	Usual	Usual
Chest discomfort	Usual and can be severe	Sometimes, but mild to moderate
Complications	Respiratory failure; can worsen a current chronic condition; can be life threatening	Congestion or ear-ache
Fatalities	Well recognised	Not reported
Prevention	Influenza vaccine; frequent hand-washing; cover your cough	Frequent hand-washing, cover your cough

2. Background information on influenza pandemic

What is an “influenza pandemic”?

Influenza pandemics are characterised by the spread of a novel type of influenza virus to many parts of the world, causing unusually high morbidity (illness) and mortality (deaths) for perhaps two to three years. Most people do not have immunity to the virus and therefore are susceptible to influenza infection. A pandemic can overwhelm the resources of a society due to the exceptional number of those affected.

A pandemic may occur as a result of the emergence of a new viral sub-type with the capacity to spread efficiently from human to human.

What does an influenza pandemic look like?

Past pandemics over the centuries have swept quickly through populations and left considerable damage in their wake. Recovery was impeded by the tendency of pandemics to recur in second and third waves. Age groups and geographical areas not affected initially may prove vulnerable during subsequent waves.

For example, in the 1918-1919 “Spanish flu” pandemic¹, there were three waves. For whatever reason, the virus in the first wave in June–July caused illness that appeared to be indistinguishable from seasonal influenza. In November a far more virulent illness appeared. The first wave provided some protection from the second – those who became ill in the first wave were less likely to get sick in the second wave. The third wave in 1919 was much smaller and less intensive than the previous two.

By contrast, the 1957-1958 “Asian flu” pandemic was essentially one long wave lasting about three months, with a very high total attack rate (possibly 70% - 80% of the New Zealand population) and no significant following waves. The mortality rate was very low.

It is not possible to predict pandemic wave activity or other features before a pandemic. It is probably safe to say that if there is a very large wave with a very high total attack rate (as in 1957) there won't be another of any size resulting from the same virus (or a slightly mutated form), because a high proportion of the population will have developed natural immunity. However, a 20% wave would not preclude another larger one at a later stage (as in 1918).

Current national planning aims to keep influenza out of New Zealand or substantially delay its entry, and if it arrives, control clusters within New Zealand until a vaccination campaign can be run. Vaccination will protect the general population against pandemic influenza. However, given the time lapse (several months at least) between virus recognition and production of a vaccine, planning must take into account the possibility that the pandemic may reach New Zealand, and that there may be more than one “wave” of illnesses.

¹ Globally, the Spanish flu pandemic is estimated to have killed 20 to 50 million people. This pandemic disproportionately affected young people aged 20 to 40. Death was sudden, often within 24 hours. In New Zealand, over 8,000 people died. In Western Samoa, 20 to 25 percent of the population died. By contrast American Samoa, which closed its borders, had no deaths.

The Ministry of Health has prepared a number of possible scenarios to assist with planning for pandemic influenza. In addition, the international weekly journal of science, [*Nature*](#), illustrates how a pandemic might play out with a future scenario in the form of a blog.

How likely is an influenza pandemic?

The [World Health Organisation \(WHO\)](#) and [Ministry of Health](#) advise that it is certain there will be an influenza pandemic at some time in the future, but no-one can say when.

On average, influenza pandemics occur three times every century, but with no recognisable pattern in timing. In the last century, pandemics occurred in 1918-1919 (the "Spanish flu"), 1957-1958 (the "Asian flu"), and 1968-1969 (the "Hong Kong flu").

The WHO considers the risk of avian influenza morphing into the next pandemic to be very high. The H5N1 virus has recently expanded its geographical area: originally it had affected several east and Southeast Asian countries, central Asia, Europe and Africa². Even if the risk from avian influenza goes away, another influenza virus can be expected to come along months or years later.

The WHO is advising Governments worldwide to take precautionary measures and develop pandemic influenza response plans.

What is avian influenza ("bird flu")?

"Bird flu" or avian influenza is a contagious viral infection that can affect all species of birds. Migratory waterfowl (ducks and geese) are a natural reservoir for avian influenza virus overseas and may carry the viruses without becoming ill.

Fortunately, New Zealand is not on the regular migratory pathways of any waterfowl and only very occasionally do waterfowl reach our shores, generally originating from southern Australia.

"Bird flu" outbreaks among chickens and other birds occur from time to time around the world due to a variety of strains of avian influenza virus.

The current outbreak of highly pathogenic avian influenza (HPAI) due to the H5N1 strain is of concern because of the size of the outbreaks, the number of countries becoming affected and the fact that humans have become infected.

The H5N1 virus is highly infectious among birds and in a number of species it can be rapidly fatal. Because of their living conditions domestic poultry flocks are particularly vulnerable to the rapid spread of the disease. The disease is not normally spread to humans but some cases have been reported. Most cases to date appear to have resulted from close direct contact with infected birds. There is no suggestion yet that the virus is easily spreadable from person to person.

Clinical experts are, however, concerned at the potential for H5N1 to adapt to humans and thereby acquire the ability to spread readily from human to human. If

² As at May 2006, the East Asian and South East Asian countries which have been affected are Japan, China, Korea, Laos, Vietnam, Thailand, Cambodia, Indonesia and Mongolia. The central Asian countries affected are Russia and Kazakhstan. European countries affected include Turkey, Palestine, Rumania and Greece. African countries include Egypt and Sudan.

this happens there could be a worldwide influenza pandemic. The WHO considers the current risk to be high and is advising governments worldwide to take precautionary measures and develop pandemic influenza response plans.

Why should New Zealanders be concerned?

Beginning in late July 2005, official reports to the World Animal Health Organisation from government authorities indicated that the H5N1 virus had expanded its geographical range. Russia and Kazakhstan reported outbreaks of avian influenza in poultry in late July and confirmed H5N1 as the causative agent in early August. Deaths in migratory birds infected with the virus have also been reported. Outbreaks in both countries have been attributed to contact between domestic birds and wild waterfowl via shared water sources. These are the first outbreaks of HPAI recorded in the two countries. Both countries were previously considered free of the virus.

In mid-October, Turkey, Rumania and Greece reported outbreaks of avian influenza and confirmed H5N1 as the causative agent.

Experience in south-east Asia (Viet Nam, Thailand, Cambodia, and Indonesia) indicates that human cases of infection are rare but that there is a high mortality rate (there have been 218 laboratory-confirmed human cases of avian influenza since December 2003, of which 124 were fatal). Most, but not all, human cases have been linked to direct exposure to dead or diseased poultry, notably during slaughtering, de-feathering, and food preparation.

Influenza viruses are highly unstable. This means that over time viruses change and may develop the ability to readily infect humans. Also, when animal influenza viruses are circulating at the same time as human viruses there is potential for the two to "meet" and create a new influenza virus to which humans would have little, if any, protective immunity, and which can spread easily from person to person.

H5N1 is showing signs of changing and the expanding geographical presence of the virus creates expanded opportunities for human exposure. The emergence of an HPAI strain that is readily transmitted among humans would mark the start of a pandemic.

Where can we find international information updates?

The [World Health Organisation](#) website provides updates on the global occurrence of avian influenza, risks to humans, vaccine and anti-viral developments. It also provides useful background information about the nature and characteristics of avian influenza and past pandemics.

The [World Organisation for Animal Health](#) provides an international perspective and updates on infection in birds.

The New Zealand [Ministry of Health](#) also provides much relevant information.

What are the symptoms of influenza?

Influenza is a highly contagious viral disease of the respiratory tract, characterised by rapid onset of respiratory and generalised signs and symptoms including: a high fever, headache, muscle aches and pains, fatigue, cough, sore throat, or a runny nose.

How is influenza spread?

Influenza is spread from person to person in the respiratory droplets generated by coughs and sneezes. It can also be spread when a person comes into contact with the respiratory droplets of another person by touching items on which droplets are present, and then touches their own eyes, mouth or nose before washing their hands. The virus may enter through the eyes or more commonly through the nose or mouth, and into the throat and lungs where it begins to multiply. The time from first exposure to when symptoms begin is one to four days.

The disease damages the linings of the respiratory tract. Secondary bacterial infections, such as pneumonia, meningitis, sinus and ear infections can then take hold.

How long is the influenza virus infectious?

It is not known for certain if people with influenza are infectious before developing symptoms. An adult with influenza is infectious once they show symptoms, and for some days after. Students have been shown to remain infectious for up to 21 days, long after symptoms have disappeared. Some individuals may become infected but never show symptoms.

Influenza viruses may be able to live for up to two days on hard surfaces such as doorknobs, handrails, toys, cups, utensils, telephones. Although it can live on these surfaces it is not as infectious as these surfaces are usually dry.

Will vaccine against pandemic influenza be available?

Vaccines are virus-specific, so pandemic vaccines cannot be produced until the specific pandemic virus has been identified. The time lapse between virus recognition and production is likely to be at least several months, largely because of technical issues around vaccine production. The Ministry of Health is working to ensure New Zealand gets access as quickly as possible to a vaccine once it is developed and available.

Given that the first supplies of vaccine against a novel strain of influenza are unlikely to be available quickly, it is possible that New Zealand would have suffered at least one pandemic wave before a vaccination campaign can provide population immunity.

Will anti-viral medications be available to prevent or cure pandemic influenza?

Many complications from influenza are due to secondary infection. Antibiotics are the preferred treatment for secondary infections, although they are ineffective in the treatment of the viral influenza itself.

Anti-viral medication can shorten the course of infection, if given early. They can also provide short-term protection against influenza. Several anti-virals have specific activity against the influenza virus, but only one of these (Tamiflu) is thought to be suitable for widespread general use in a pandemic situation.

It is not known if Tamiflu will be effective against a pandemic strain virus as its use in a pandemic situation is untested. The impact of Tamiflu in aiding pandemic

management measures cannot be known until a pandemic occurs and epidemiological evidence is available.

The Ministry of Health is stockpiling sufficient Tamiflu to treat 30% of the population, for use if a pandemic occurs. Careful prioritisation of its usage is essential, and exact priorities cannot be identified until the pandemic strain is identified and its epidemiology understood (eg, which age groups in the population are likely to be the worst affected). Current draft policy envisages that Tamiflu will be used intensively in the early stages as part of a number of initiatives for control of small clusters of illness. If and when the pandemic affects many areas of New Zealand, its usage will be reserved for treatment, and further prioritisation may be required (eg, for cases at higher risk of complications or death).

Further information and updates about Tamiflu may be found on the [Ministry of Health](#) website.

3. Pandemic planning scenarios

New Zealand will have some advanced warning of a gathering influenza pandemic risk. The following scenarios may help with your school's planning for each pandemic stage:

Stage 2

Ministry of Health Alert Code Red (Stage 2 – Keep it Out) was declared in New Zealand two weeks ago after an outbreak of pandemic influenza was declared in Australia. You are a primary school teacher and have woken up feeling fluey. You spent the weekend with your sister and family who returned to New Zealand from their holiday in Australia, the day before the outbreak was declared in Australia.

- 1. What's the difference between flu and cold symptoms?**
- 2. Do you go to work or not?**
- 3. What action/s should you take?**

Stage 3

An outbreak of pandemic influenza has been declared in Auckland. Schools and early childhood education services have been closed to students and children in the greater Auckland region. Public gatherings have been banned. You are a teacher in a secondary school in Invercargill. One of your students, Michael (aged 14 years), has been sneezing and the other students are starting to get anxious.

- 1. What are your immediate actions?**
- 2. What planning and resources should you have in place to carry out the actions?**
- 3. What longer term actions should you take, from the next day on?**
- 4. What planning and resources do you need to have in place?**

Stage 3

It is 1pm on Wednesday 18 June 2008. A confirmed case of pandemic influenza has been diagnosed in a 15-year-old boy in Fendalton, Christchurch. His father and two siblings are showing flu symptoms and three students from his class are at home sick. You are the principal of a primary school in New Brighton. The Medical Officer of Health has just declared a medical emergency and closed all schools and all early childhood education services to students and children in the greater Christchurch area.

- 1. What actions do you take immediately?**
- 2. What planning and resources (eg, letters etc) do you need to have in place to accomplish the actions?**
- 3. What actions do you need to take longer term, from the next day on?**

4. What planning and resources do you need to have in place to accomplish the actions?

Your primary school day finishes at 3 pm. By 5 pm the parents of two children, who are usually picked up by a parent, have not arrived to collect them. Public transport has been disrupted due to the pandemic outbreak being declared. You have telephoned the numbers you have on file for the parents. Mobile telephone services are disrupted and you have not been successful in contacting the parents.

- 1. What are your responsibilities?**
- 2. What are your immediate actions?**
- 3. What planning and resources do you need to have in place?**

Stage 4

It is 9pm on Monday 30 June 2008, the Minister of Health has declared that New Zealand is in Stage 4 - Alert Code Red (Manage it). The influenza pandemic has spread nationwide. All schools and all early childhood education services in the country have been directed to close to students and children by Medical Officers of Health from tomorrow until further notice. All public gatherings have been banned and swimming pools and recreation centres closed. You are the principal of a secondary school.

- 1. What are your immediate actions?**
- 2. What planning and resources do you need to have in place to achieve the actions?**
- 3. What do you do the next day?**

You were unable to contact several staff members last night and early this morning. Some parents have not heard about schools closing to students and have been arriving to drop their children from 8am this morning.

- 1. What immediate actions should you take?**
- 2. What planning and resources do you need to have in place to achieve the actions?**

4. Sample decision making and communication tree

Schools should follow Ministry of Health advice at every stage of a pandemic. Ministry of Health announcements will be made through media reports and on their website. There will also be direct communication with education organisations from the Medical Officer of Health (DHB). All major decisions such as school closures should be made in close consultation with district health authorities.

Pandemic planning - decision making and communication process for schools

