

# **Pandemic Influenza Plan Template for Healthcare Providers (Hawke's Bay) Residential Homes**



**June 2013**

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## PURPOSE

This plan serves to ensure that **(NAME)** Residential Home and Hospital can cope with a Pandemic – responding in a way that keeps people safe and protects them from harm.

Firstly, this plan outlines the actions required of personnel coming directly under the control of **(NAME)**, in the event of a Pandemic. Note: This Plan does not include home-based self-care services or outlining independent villages (either on-site or under the named Organisation) due to contractual and health and safety risks.

Secondly, this plan is designed to meet the requirements of the Hawke's Bay District Health Board Pandemic Influenza Plan.

## DECLARATION

In the event of a Pandemic Influenza Residential Providers will find it difficult to cope.

Essential Services will need to be maintained by doing the best within the resources available in a given time

The contents of this plan are to be followed as closely as possible to avoid confusion, but appropriate discretion must also be employed where no specific direction is laid down.

Signed \_\_\_\_\_  
Chief Executive Officer

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20

## LIABILITY/RISK

- The specific agency accepts responsibility for reporting the issues/risks
- The Hawke's Bay District Health Board acknowledges and accepts the clinical and contractual risk to specific agencies by asking the specific agencies to operate above and beyond their Contractual obligations

Signed \_\_\_\_\_  
Hawke's Bay District Health Board Chief Executive Officer

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20

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# **PART ONE**

## **GENERAL INTRODUCTION**

General Overview

How influenza differs from the common cold

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## **GENERAL OVERVIEW**

An influenza pandemic occurs when a new strain of influenza virus emerges, spreading around the world and infecting many people at once.

An influenza virus capable of causing a pandemic is one that people have no natural immunity to, can easily spread from person to person, and is capable of causing severe disease.

There were three influenza pandemics last century: in 1918, in 1957/58 and in 1968/69. The 50s and 60s pandemics were caused by viruses containing a combination of genes from a human influenza virus and an avian influenza virus.

## **HOW INFLUENZA DIFFERS FROM THE COMMON COLD**

Influenza is characterised by rapid onset of respiratory and generalised signs and symptoms, including fever, chills, sore throat, headache, dry cough, fatigue and aching.

Influenza is easily spread through droplets from an infected person (suspended in the air through coughing or sneezing) being inhaled by another person, or through contact with contaminated objects.

The incubation period can range from one to seven days, but is commonly one to three days. Adults are contagious for one to two days before most symptoms start until about day five of the illness. Children generally remain infectious for up to seven days.

## **TRANSMISSION**

- Highly infectious
- Aerosol/droplet
- Also hand to hand and via inanimate objects
- Infectivity starts before symptoms and lasts for 3-7 days

## **POTENTIAL SCALE OF A PANDEMIC - NATIONALLY**

The Ministry of Health (the Ministry) has taken a 'maximum credible event' approach to pandemic planning. Using the November 1918 pandemic influenza wave in New Zealand as a basis, the Ministry has developed a standard planning model to provide planners with an indicative pandemic wave scope, scale and duration.

The New Zealand standard planning model assumes a pandemic wave in which 40% of the NZ population become ill over an 8-week period. The model indicates that over 1.6M people could become ill over this time. The peak incidence is over weeks 3 – 5, when about 1.3M people, around a third of New Zealand's population, would be ill, convalescent, or only just recovered.

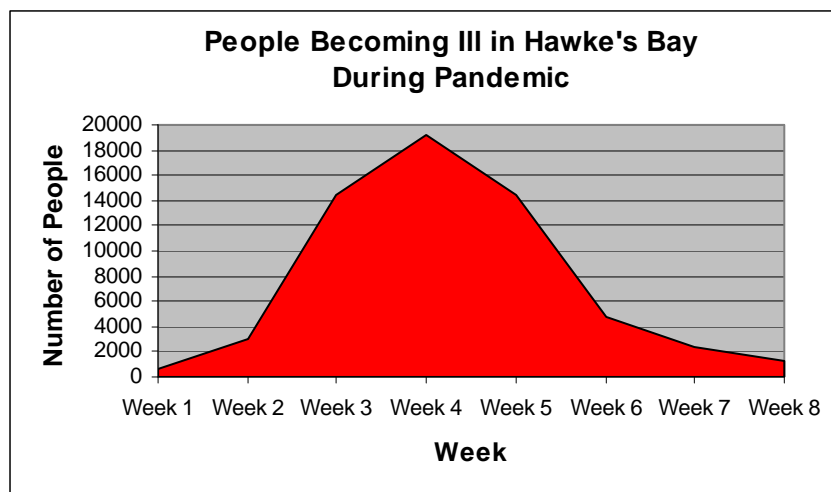
The model assumes a total case fatality rate of 2%, which would see about 33,000 deaths over the 8 week period, peaking at about 10,000 in week 4.

It is important to note that this is not a prediction or a forecast of what will happen should a pandemic occur – it is not possible to make any such forecast before a

pandemic develops. A 21<sup>st</sup> century pandemic may not reflect the course, incidence, or fatality rates of the 1918 pandemic.

The model's purpose is to provide a structure around which Health, Government and New Zealand as a whole can plan for a very large event with severe impacts on all aspects of society. As the 1918 pandemic in New Zealand is relatively well understood and documented it has been selected to provide the basis for the standard planning model, and clearly it is necessary that plans be based on the extreme circumstances that 1918 may represent.

## POTENTIAL SCALE OF A PANDEMIC - LOCALLY



## IMPACT ON SOCIETY

A pandemic will likely be characterised by a high level of absenteeism in the workforce as people fall ill or stay at home to care for sick relatives.

Essential services such as police, fire, transportation, communications and emergency management services need to be maintained during a pandemic.

Other services and supplies – including food, water, gas, electricity supplies, educational facilities, postal services and sanitation – are also likely to be affected.

It is right to assume that normal business activities, regardless of their nature, will suffer during a pandemic.

## CARE IN THE COMMUNITY

Due to the high rates of infection possible during pandemic influenza, all except the seriously ill may need to be cared for at home.

Public and private hospitals will need to prioritise admissions, rationalise services and review staff rosters.

DHBs will need to consider additional supplies of medication and equipment (e.g. ventilators, oxygen supplies and syringes). It may be necessary to utilise other facilities (e.g. community centres or hotels) if extra space is required, particularly for outpatients or patients post discharge. In general, emphasis should be given to out-

of-hospital care and saving hospital beds for only the most severe cases. DHBs will need to liaise with local councils, their civil defence emergency management groups and voluntary groups so that they can assist in providing community care.

Health professionals, such as nurses, general practitioners, paramedics, locums, health clinic staff and social service personnel, will require DHB support and co-ordination. Pharmacists will experience a rise in workload, with increased demand for medication, dispensing prescriptions and over-the-counter products. They will be closely involved in the provision of frontline advice to members of the community and in the management of adverse reactions to the usual prescribed medications.

## **CARE OF DEPENDANTS**

During a pandemic, there are likely to be substantial numbers of people whose normal care givers are unable to provide assistance. This could include children when parents are sick, elderly , people with chronic illness or disability, and people living on their own.

Two situations may occur:

- children orphaned due to the death of their caregiver(s)
- children left without their prime caregiver(s) due to that person or persons being hospitalised

Both cases will result in children requiring care being present at a hospital or primary health centre. It would not require very many of these children to reduce the capacity of the institution to function to its full capacity.

In the first instance, modelling (using the 35 percent infection rate) indicates that approximately 200 children nationwide would be left without their caregiver(s), or with temporary care from an alternative relative. These numbers are unlikely to stretch the capacity of the local social services, particularly when regional distribution is taken into account. Of greater short-term concern during a pandemic is the second instance, which may involve over 800 children in 400+ family groupings.

## **CARE OF THE DECEASED**

The standard planning model assumes about 33,000 deaths over an 8-week pandemic wave, with a peak of around 10,000 in the peak week. For context, New Zealand averages about 550 deaths per week in normal times. Clearly normal services will be unable to manage the numbers involved, and special arrangements will be necessary for the storage, management and eventual disposal of the deceased.

# MINISTRY OF HEALTH CASE DEFINITION

## Suspected case of Pandemic Influenza

Person with an influenza like illness of abrupt onset, characterised by:

- History of fever, chills and sweating; or
- Clinically documented temperature  $\geq 38^{\circ}\text{C}$  ; and
- Cough or sore throat

## Probable case of Pandemic Influenza

Person with an influenza like illness who has a strong epidemiological link to a confirmed case or defined cluster.

## Confirmed case

An individual for whom laboratory testing demonstrates one or more of the following:

- a. positive viral culture for Pandemic Influenza;  
or
- b. positive RT-PCR for Pandemic Influenza; or
- C.** four-fold rise in novel influenza virus specific neutralising antibodies.



## PANDEMIC PHASES – DEFINITIONS

For purposes of consistency, comparability and co-ordination of the national, regional and local response, identification and declaration of the following phases will be done at the national level.

WHO Pandemic Phase	Definition
<b>Inter-Pandemic Period</b> (WHO Phase 1)	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.
<b>Novel Virus Alert</b> (WHO Phase 2)	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.
<b>Pandemic Alert</b> (WHO Phase 3)	Human infection(s) with a new virus sub-type, but no human-to-human spread, or at most rare instances of spread to a close contact.
(WHO Phase 4)	Small cluster(s) with limited human-to-human transmission but spread is highly localised, suggesting that the virus is not well adapted to humans.
(WHO Phase 5)	Larger cluster(s) but human-to-human spread still localised, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).
<b>Pandemic Period</b> (WHO Phase 6)	Pandemic: increased and sustained transmission in general population.

WHO PERIOD*	WHO PHASE*	NZ STRATEGY	MoH/DHB ALERT CODE
Interpandemic Period	Phase 1	Planning	N/A
	Phase 2		WHITE (Information / Advisory)
Pandemic Alert Period	Phase 3	Border Management	YELLOW (Standby)
	Phase 4		RED (Activation)
	Phase 5		
Pandemic Period	Phase 6	Pandemic Management	GREEN (Stand Down)
Post Pandemic Period	Post Pandemic Period	Recovery	

## ACTIVATION OF PANDEMIC CONTINUITY PLAN

MoH will widely publicise any changes to the "alert codes" which are designed to alert government agencies to action, and may signify the need to activate business continuity plans.

**This table has been reviewed and changes made relevant to the Residential Sector**

**Suggested Summary Actions for Infrastructure Providers for Each Alert Code**

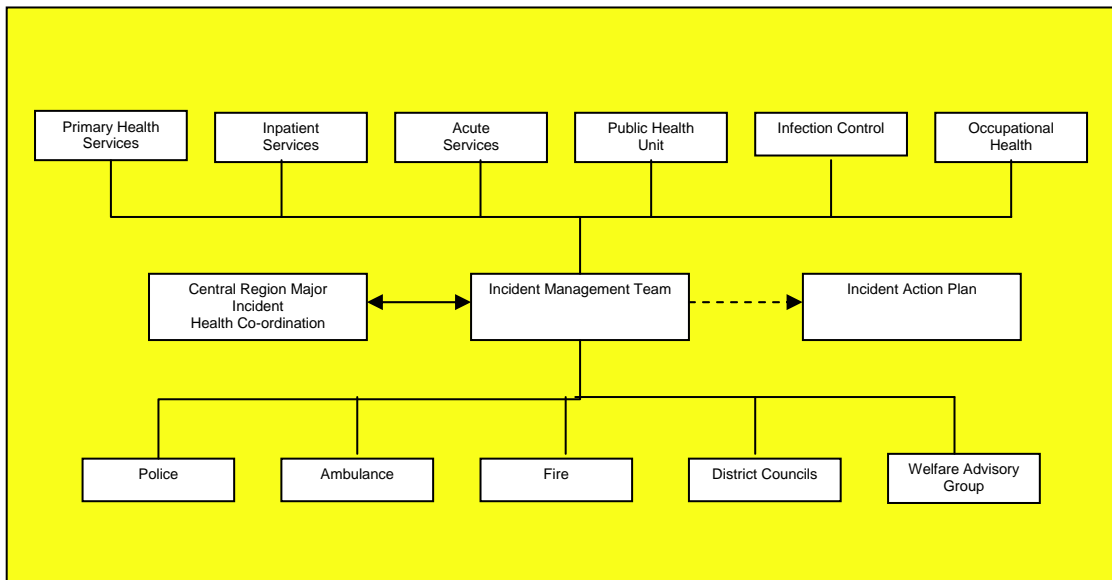
Stage	New Zealand Strategy	MoH/DHB Alert Code	Suggested Infrastructure Provider Actions
1	Plan for it (Planning)	<b>White</b> (Information/advisory)	<p>Review business continuity plans:</p> <ul style="list-style-type: none"> <li>Identify essential services</li> <li>Plan for up to 50% staff absences for periods of 2-3 weeks at the height of the pandemic, and lower levels of staff absences for a few weeks on either side of the pandemic</li> <li>Assess staff requirement needs, and ensure essential positions are backed-up by an alternative staff member</li> <li>Identify ways to increase "social distancing", containment in the event of in the workplace</li> <li>Consider organisational policies to encourage the sick to stay at home</li> </ul>
		<b>Yellow</b> (Standby)	<ul style="list-style-type: none"> <li>Identify ways to minimise illness amongst staff and residents and consider how essential messages (e.g. basic hygiene) can be communicated</li> <li>Identify needs for PPE and cleaning equipment</li> <li>Purchase additional contingency supplies.</li> </ul>
2	Keep it out (Border Management)	<b>Red<sup>14</sup></b> (Activation)	<ul style="list-style-type: none"> <li>Alert staff to change in pandemic status</li> <li>Activate staff overseas travel restrictions</li> </ul>
3	Stamp it out (Cluster Control)		Alert staff to change in

**Suggested Summary Actions for Infrastructure Providers for Each Alert Code**

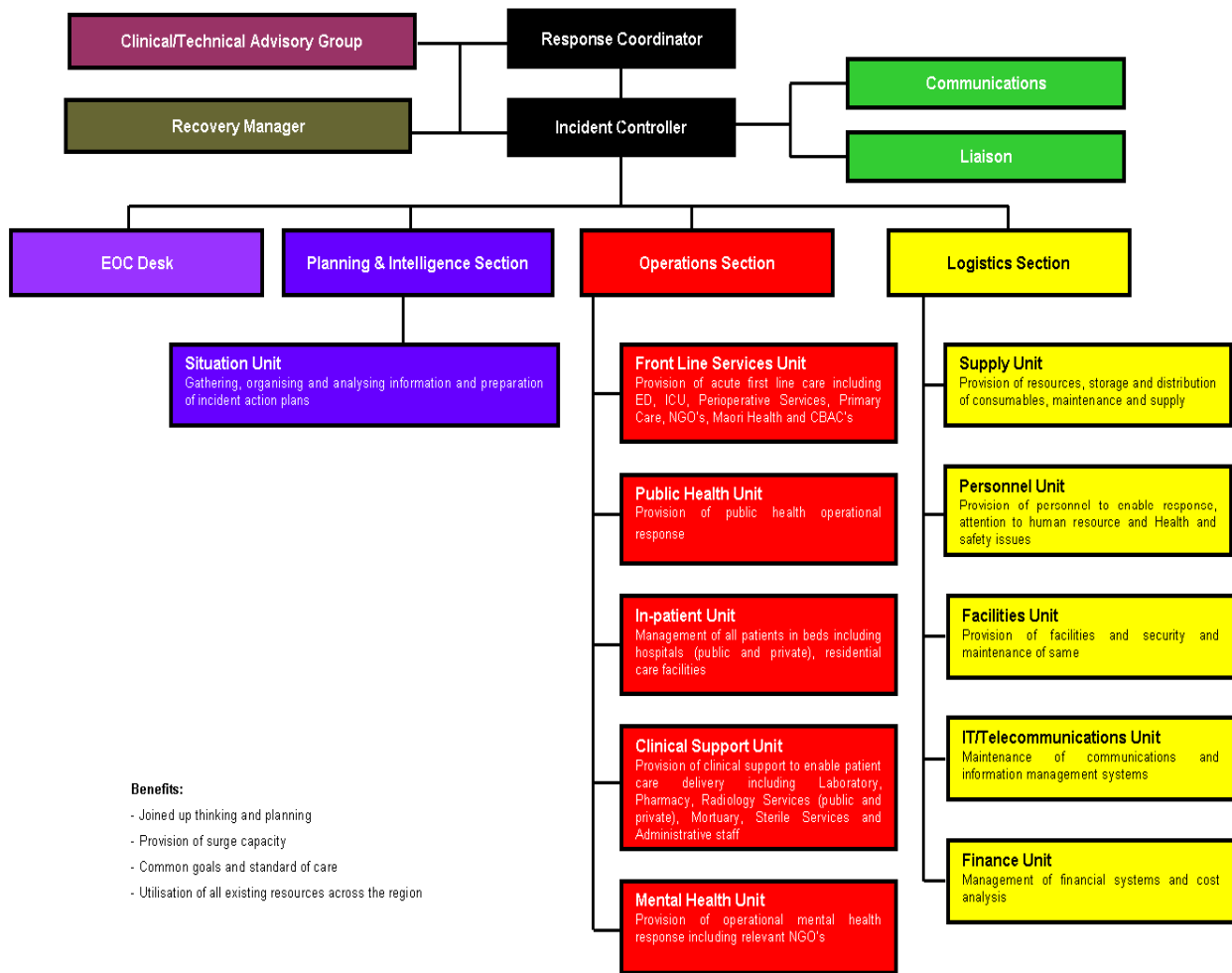
Stage	New Zealand Strategy	MoH/DHB Alert Code	Suggested Infrastructure Provider Actions
4	Manage it (Pandemic Management)		<p>pandemic status</p> <p>Activate essential business continuity measures</p> <p>Activate measures to minimise introduction and/or spread of influenza in work place (post notices; social distancing, managing ill staff members, workplace cleaning, etc)</p> <p>Communicate with staff to promote confidence in the workplace</p> <p>Activate contact tracing where staff become ill at work during Cluster Control phase</p> <p>Activate process for recovered/well staff members to return to work</p>
5	Recover from it (Recovery)	Green (Stand down)	Manage return to business as normal

## THE ROLE OF THE DISTRICT HEALTH BOARD

- Hawke's Bay District Health Board becomes the lead agency
  - Primary and secondary care
  - Public health advice
- Ministry of Health – national leadership, surveillance
- CDEM (Civil Defence Emergency Management Group) – manage civil defence declaration



# HEALTH CIMS STRUCTURE



## EMPLOYMENT LAW ADVICE

### Referenced from Healthcare Providers New Zealand

(PLEASE NOTE: Permission granted to include this information in this Plan by the CEO of Healthcare providers New Zealand)

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A pandemic will not be like a physical disaster. A pandemic has unique characteristics compared with a more "typical" disaster. For example;

- **Widespread impact:** the pandemic is likely to be widespread, and not localised to a single area. There may be little outside assistance;
- **Not a physical disaster:** a pandemic is not a physical disaster. It has some unique characteristics that require implementation of activity to limit contact such as restriction of movement, quarantine and closure of public gatherings;
- **Duration:** a pandemic would not be a short, sharp event leading immediately to commencement of a recovery phase. Overall a pandemic wave may last about 8 weeks. Further, the pandemic may come in waves of varying severity over time;
- **Notice:** it is quite likely that there will be some advance warning from the development of the pandemic overseas. However, it is also possible that any warning period may be short. Should the pandemic spread within New Zealand it will probably be some weeks before the full impact on the workforce will be felt, although there may be some more immediate impacts resulting from closing of schools and similar containment measures;
- **Primary effect is on staffing levels:** unlike natural disasters, it is anticipated that disruptions to business will be mainly human resource orientated. The Ministry of Health advises that businesses should plan for up to 50% staff absences for periods of about two weeks at the height of a pandemic wave, and lower levels of staff absence for a few weeks either side of the peak.

### STAFF ABSENCES

Staff absences can be expected for many reasons:

- Illness/incapacity (suspected/actual/post-infectious);
- Some employees may need to stay at home to care for the ill;
- People may feel safer at home (e.g. to keep out of crowded places such as public transport);
- Some people may be fulfilling other voluntary roles in the community; and
- Others may need to stay at home to look after school-aged children (as schools are likely to be closed).

### HUMAN RESOURCE ISSUES

All businesses will benefit significantly from some degree of preparedness. Planning will reduce the human cost and improve business viability during and after a pandemic.

## DECIDING TO STAY OPEN OR TO CLOSE

A workplace may close through lack of staff or customers, or because it presents an unacceptable level of risk to employees or others.

Different industries will have varying degrees of risk in a pandemic, and there will be varying scope for staying in operation. For example, farmers should be able to manage the hazard with relatively few restrictions. On the other hand, the challenges for shops and restaurants to stay open will be far greater.

All employers have responsibility for the health and safety of employees and others in their workplace. They must also ensure that their employees actions (or inactions) do not cause harm to others.

The most relevant sections of the *Health and Safety in Employment Act* are;

*"Section 6: every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practical to:*

- Provide and maintain for employees a safe working environment;*
- Provide and maintain for employees while they are at work facilities for their safety and health..."*

Sections 7 to 10 provide a hierarchy of action for the management of hazards. Where a significant hazard (including the likelihood of pandemic influenza) is identified, the Act sets out the steps an employer must take, including:

- Where practicable, the significant hazard must be **eliminated** (section 8). This may involve removing the hazard or hazardous work practice from the work place;
- If elimination is not practicable, the significant hazard must be **isolated** (section 9). This may involve isolating or separating the hazard or hazardous work practice from people not involved in the work or the general work areas. It could mean reducing the potential for contamination through changing work practices to achieve a greater degree of **social distancing**, or installing screens or barriers;
- If it is impracticable to eliminate or isolate the hazard completely, then the employer must **minimise** the likelihood that the hazard will harm employees or others coming into the workplace (section 10). This includes introducing work practices that reduce the risk. It may mean limiting the amount of time a person is exposed to a hazard; and
- In addition, the employer must (where appropriate) provide and ensure the use of suitable clothing and equipment to protect the employees from any harm arising from the hazard.

## REFUSAL TO PERFORM WORK

Employers should be aware that under the *Health and Safety in Employment Act* employees have the right to refuse to perform work if they believe it is likely to lead to their suffering serious harm. This belief must be based on reasonable grounds, and they must have attempted to resolve the matter with their employer before they can continue to refuse to work.

The right to refuse unsafe work does not apply unless the understood risks of the work have materially increased. That means that the right of a nurse to refuse is different to that of an accounts clerk.

## CLOSEDOWN

It may be possible to use the "closedown" provisions of the *Holidays Act*. This Act gives employers the ability to "closedown" the work place for a fixed period after giving staff 14 days notice. During this time, employees would be required to take their annual leave (whether or not they had any to take). The *Holidays Act* defines a close down period as a period in which a employer **customarily**:

- Closes the employers operations or discontinues the work of one or more employees; and
- Requires employees to take all or some of their annual holidays.

To fall within that definition the employer would need to argue that they would **customarily** close their business down when confronted by a significant hazard such as a pandemic influenza.

Employers can have different close down periods for different areas of their business. This means that if the risk of infection is greater in one part of the business, potentially the employer would be able to just close down that area. If the employer has work places around the country, the close downs could be used at different times depending on how the pandemic spreads.

## STRIKES AND LOCKOUTS

Under the *Employment Relations Act* employees can strike and an employer can lockout if there are reasonable grounds for believing that it is justified on the grounds of health or safety. While the cases for establishing that such action is justified are notable for their lack of success, the circumstances of a pandemic may reach the point that is likely to provide that justification. Employers are not required to pay wages during a lockout.

Strikes and lockouts can severely damage employment relationships. They should only be contemplated if it is apparent that no reasonable agreement is able to be reached between the business and employees.

## THE HEALTH ACT

The Ministry of Health currently defines pandemic influenza contacts as people who have had close physical (less than 1 metre) or confined air space contact with an infected person, within 4 days of that person developing symptoms. These are likely to include family members and work mates (if in close contact situations or confined air space environments).

Under the *Health Act* contacts will be expected to stay at home and avoid contact with others for a recommended period. This period will be determined by health officials, and is not at the discretion of the employer.

The role of contact tracing may vary according to the phase of the pandemic. At an early phase when efforts are directed at keeping the pandemic out, or in managing small clusters, contact tracing and the associated quarantine of cases and contacts



will be vigorous. However, if the pandemic begins to affect large numbers of people across the country, it will not be an effective strategy and may be dropped.

## **PAYMENT**

There is no simple answer to whether employees should be paid during a pandemic if they do not work. It will also depend on how the pandemic spreads and effects the employer's business and the economy.

Generally, an employer is obliged to pay an employee where that employee is told to stay home (such as in suspension cases). However, in exceptional circumstances there may be a point where an employer is allowed to draw the line.

The situation would be different where the employee is sick and has decided to stay home (as opposed to being directed to stay home by the employer). Employees may use their sick leave where they are sick (or a dependant is sick). In these circumstances an employee is entitled to be paid their contractual sick leave entitlement, and can also opt to take annual leave as sick leave where sick leave is exhausted.

In the event that both sick leave and annual leave have been exhausted, and the employee considers that they are still too sick to come to work, the employer does not have an obligation to continue to pay that employee.

Employers may also face the situation where employees opt to stay away from work in an attempt to protect themselves from being infected. As indicated earlier, employees have the right to refuse to perform work likely to cause serious harm. In the event of an employee exercising this right, employers will be faced with the question of whether or not they are required to pay these employees. This is something that would need to be determined in light of the circumstances, taking into account the risk of infection and what a reasonable employer would have done.

The same issue arises under the *Health Act*. A medical officer of health has special authority to try and contain the spread of infectious diseases. This includes requiring people who are infected to be quarantined and to close buildings which are thought to be contaminated.

In the event of an employee being prevented from turning up to work because of a direction given under the *Health Act* the same sick leave and annual leave payment options apply if the employee is sick. If the employee is not sick but has been directed to stay at home this again is something that would need to be determined in light of the circumstances, taking into account the risk of infection and what a reasonable employer would have done.

On a practical level, whatever an employers legal obligations are, it is entirely possible that employers will simply be unable to comply with their obligations. This may be because the employer simply cannot afford to sustain paying employees. If this is the case, the employer would need to either:

- Make the employees redundant (ensuring that the proper procedure was followed); or
- Obtain the employees agreement that they will not be paid while there is no work.

## WHAT THIS MEANS

What this means is that employers must be prepared. If a business is going to try and continue to operate through a pandemic then to comply with its health and safety obligations it must have a plan to either **eliminate**, **isolate** or **minimise** the hazard where practicable, or where it is not practicable to ensure that the employees have suitable protective clothing and equipment, and to monitor the employees exposure.

Statutory and contractual requirements relating to employment relationships will not be suspended during a pandemic. Employers should be aware of their duties and ensure that their plans comply. If they are unlikely to comply, then employers should discuss the possible impact on the business with their staff and agree if possible on solutions. Whatever agreement and clarification can be achieved before a pandemic is likely to be a valuable investment should the pandemic arrive.

# **PART TWO IN THE EVENT OF**

Assumptions

Person responsible for Co-ordination

Risk/Impacts

Management

Planning for the Pandemic

During the Pandemic

During the Pandemic – Communication Plan

Appendix 1: Fact sheet - Handout for staff

Appendix 2: Personal Protection

Appendix 3: Estimated PPE Supplies

Appendix 2: Signage Templates

Appendix 3: Diagnosis/Management Template

Appendix 4: Communication Fax Template

## **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 Hawke's 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 1194 people will die (this is a conservative estimate of the impact)
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.

## **PERSON RESPONSIBLE FOR THE CO-ORDINATION**

Owner/Chief Executive Officer/Manager or Nurse Manager/Senior Nurse on duty/Designated Infection Control Officer designated as "Outbreak Manager".

### **Responsibilities**

1. Take lead responsibility for all infection control issues
2. Ensure staff/residents/families are kept up to date with current information from the DHB and the Ministry of Health.
3. Ensure that all staff are adequately trained in infection control practice.

## **RISKS/IMPACT**

- Overwhelming number of sick residents
- Looking after acutely unwell residents who cannot be admitted to Hospital
- Staff absenteeism
- Stock reduction – food, products etc
- Relatives
- Robbery for our supplies
- Disposing of wastes
- Disposing of bodies

## **MANAGEMENT**

### **Overall goal**

In the event of a Pandemic Influenza Residential Providers will find it difficult to cope.

Essential Services will need to be maintained by:

- Doing the best within the resources available in a given time
- Containment of an outbreak
- Minimisation of the risk of cross infection

### **Expected outcome**

Effectiveness of the precautions instituted will be demonstrated by reduced transmission of disease

## **PLANNING FOR THE PANDEMIC**

In the event of an emerging infectious disease-related emergency all residential facilities need to have the following minimum capabilities

### **PREPARATION**

#### **A Plan in Place**

##### **Resident details**

- Demographic data – up-to-date – including next of kin details
- Anticipatory directive order forms and funeral arrangements – up-to-date

##### **Staff details**

- It is recommended that all staff be vaccinated each year against seasonal influenza. While this may not protect against pandemic influenza, it will maintain the general wellness of your environment.
- Create an expectation that sick staff should stay at home
- Note: MoH advises that businesses should plan for up to 50% staff absences for periods of about two weeks at the height of a pandemic wave and lower levels of staff absence for a few weeks either side of the peak)
- Staff profile and contact phone numbers
- A designated area for staff – wanting to stay over etc

## Environment

- A designated area for the disposal of biohazard, rubbish disposal
- Laminated signage for entrances (re informing unwanted visitors etc)
- Laminated signage for infected residents (suggested wording Resident Isolation – use all precautions – visitors must inquire at reception before entering – refer to Appendix 2)

**Stock includes** (It has been recommended to have at least two weeks stock supply for the number of residents and staff in your facility – refer to Appendix 3 for stock formula)

- Medical (pharmaceutical/day-day medications)
- Nutritional (fresh/dry/storage etc)
- Meals – staff and families staying over
- Linen (contracted supplies may not occur – able to provide washing facilities on-site etc)
- Incontinent products (contracted supplies may not occur)
- Personal Protection Equipment (this stock kept separate from other stock – but checked frequently for expiry)
  - Gloves (differing sizes)
  - N95 surgical masks
  - Surgical masks
  - Reinforced disposable surgical gowns
  - Plastic aprons
  - Splash resistant goggles
  - Hand soap/hand antiseptic
  - Paper towels
  - Single use clinical thermometers
  - Biohazard bags
  - Tissues
  - Toilet Paper
  - Surface disinfectant cleaner

## Training

- Infection control training (includes caring for self, hand hygiene, appropriate wearing, removing and disposal of protective apparel and contact/isolation precautions)
- Residential Facilities to attend Hawke's Bay District Health Board Training Programmes

## During pandemic alert

### Continue business as usual

**Communication/update** to all staff/residents/visitors

**Check stock supplies** (medical/cleaning/nutritional. Note: Stock supply should be adequate for a two week period as per number of residents in facility and staff).

Ensure there is **detailed information about all residents**

This will include:

- Full name (including any AKA's - pseudonyms or pet names)
- Name and contact details of two nominated relatives/friends

- Special needs - any medical conditions, medications, allergies
- Age/date of birth
- Physical description - height, eye colour, hair colour, skin tone, identifying marks, cars, tattoos etc
- Ethnicity
- Funeral arrangements
- A recent coloured photograph should also be attached to the form
- All personal identification will be kept

**Plan the workforce**

- Check staff emergency call back list is current
- Discuss/confirm with staff in the event of – will they be coming to work

**Communication to the Emergency Operation Centre**

- Report bed numbers and occupancy (this information will aid in bed management/bed overview for the community)

**Obtain the influenza hospital admission criteria/treatment guidelines** produced by the HBDHB

**DURING PANDEMIC IMMINENT STAGE**

Fully **activate the pandemic plan**

**Communication** to all staff/residents/visitors

**Prevent** any sick/unknown person from entering the facility (signs at entrance), no “respiratory unwell” residents to enter facility

**Minimise contacts**

- Avoid meeting people face –face – use telephone/email
- Avoid unnecessary travel or group education
- Do not congregate in tearooms or other areas where staff socialise
- Avoid shaking hands or hugging
- “Practice “ghost” shifts changes wherever possible, with the shift going off duty leaving the workplace before the new shift enters
- Ventilate the workplace
- Staggered meal breaks so staff are not in the lunch areas together

**Increase cleaning** services in all areas

**Activities** to be deferred

- Diversional/leisure activities
- Communal activities
- Day-care/respite
- Volunteers

## DURING THE PANDEMIC – Outbreak

**Outbreak definition:** Three or more cases of newly acquired respiratory illness in staff and/or residents in the facility within a period of 7 days

Complete the following checklist at first contact with patient, i.e. in triage room or over the telephone.

- Yes
1. History of fever, chills, sweating or clinically documented temperature  $\geq 38^{\circ}\text{C}$

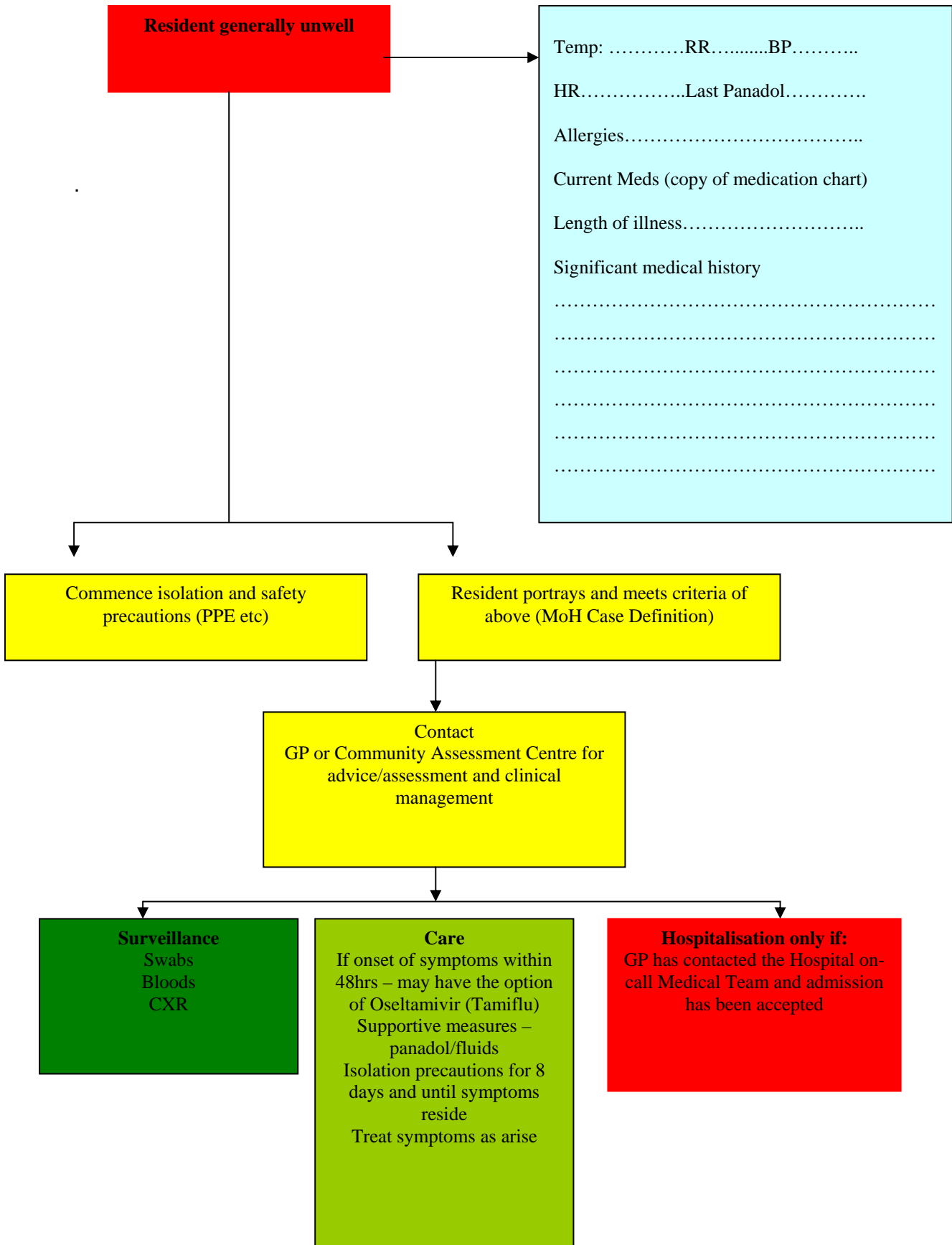
**Plus**

  2. Cough or sore throat

Patients with **both 1 and 2** meet the definition of influenza-like illness.



**Clinical Management Guidelines – Resident Care Clinical Pathway**



## Resident isolation

- Isolate/cohort suspected resident/s to rooms for 8 days (MoH 1995) may be essential to contain further spread of disease
- Sign on resident room informing “all” about isolation precautions
- Resident encouraged to wear a dry surgical mask
- Resident educated to cough/sneeze into a tissue/shoulder and to dispose of the tissue afterwards, then wash hands in warm water with soap or use an antiseptic hand gel and dry hands thoroughly afterwards
- Restriction of allied health personnel and visitors may be necessary to confine the outbreak

## Precautions for staff

- Designated staff only to care for suspected resident/s, (other staff keep a distance of one metre away)
- Shoulder length hair must to clipped or tied back
- Wearing of Personal Protective equipment (PPE)
- **Recommendations for PPE use**, (personal protection equipment (PPE) includes masks, goggles, eye/face shields, gloves, gowns and aprons.- refer to appendix 2 for more information)
- Rigorous, frequent hand washing, (wash in warm water with soap, or use an antiseptic hand gel, dry hands with paper towels)
- Shoes should cover and protect feet from splashes and dropped equipment and should have wipeable surfaces
- Wearing of street clothes to and from work and work clothes at work

## Environment

- Ventilation (keep windows open if possible). There is scientific and medical evidence that influenza can spread in inadequately ventilated internal spaces – [www.moh.govt.nz/pandemicinfluenza](http://www.moh.govt.nz/pandemicinfluenza) 23 August 2005.
- Disposable thermometers kept in resident room
- Ensure tissues are available
- Ensure supply of soap/antiseptic hand gel and paper towels are available for drying
- All resident equipment/linen handled with care, (Note: Resident/s will be unable to leave their rooms hence use of the hand basin for daily washing and thoroughly cleaning afterwards)

## Cleaning

- Frequency increased - additional may be required particularly bathrooms, taps door handles, hand rails, bedroom furniture, commode and shower chairs. Clean all horizontal surfaces and all surfaces that are touched by resident/s and staff.
- Rooms of well residents cleaned first
- Cleaning staff **must wear** PPE
- Use colour coded cleaning equipment (yellow) for cleaning isolation rooms. Cleaning cloths should be disposed of in a biohazard bag.
- Use detergent and water followed by Aqua-bleach 1:10 solution (100mL/1L water).
- Floors are wet mopped with clean water and detergent then the mop rinsed thoroughly on completion and inverted to dry.
- All resident equipment unable to be disposed of should be cleaned with detergent and water followed by Aqua-bleach 1:10 or alcohol 70% and left to dry.

- Removal of magazines, papers from common areas (e.g. tea rooms).
- Staff reminded not to share cups, dishes and cutlery, ensure all dishes are thoroughly washed in dishwasher or soap and hot water after use.

### Linen

- A linen skip and a biohazard bag must be kept in a designated area
- Linen should be changed as required taking care not to shake it
- All waste (except sharps) must go into the biohazard bag
- Linen and waste must be emptied daily or when containers two thirds full
- Laundry is hot water (65°C for not less than 10 minutes of > 71°C for not less than 3 minutes)

### Food Service

- Thorough cooking, no pink parts or runny egg yolks
- Proper handling of poultry and poultry products during food preparation
- Frozen and refrigerated poultry requires same careful food handling as virus can survive 1 month at low temperatures

## COMMUNICATION PLAN

Immediate notification of the first suspected case/s is crucial This may be done by the General Practitioner or the Manager of the Facility. Phone 834-1815 (seven days). Ask to speak to a Medical Officer of Health (MOH). Do not leave a message. Make sure you get to speak to a MOH. Detailed information will be required about each case and the MOH will work closely with the Facility to formulate an immediate plan of action, including investigation and management of the case and contacts.

Name	Title	Availability	Phone contact	After hours
<b>Hawke's Bay District Health Board</b>				
Warrick Frater	Chief Operating Officer	8-5 Mon-Fri	8788109	N/A
Sandra Bee	Emergency Response	On-call	8788109	027-245-3692
Barbara McPherson	Infection Control	8-5 Mon-Fri	8788109	N/A
<b>Public Health Unit</b>				
Dr Caroline McElnay	Medical Officer of Health	On-call	8788109	As contact
Dr Lester Calder	Medical Officer of Health	On-call	8788109	As contact
Dr Nicholas Jones	Medical Officer of Health	On-call	8788109	As contact

**During the Pandemic**

**Daily reports** to Emergency Operations Centre at Hawke's Bay Hospital.

Number of beds in facility	
Occupancy	
Number of very unwell	
Number of deaths	
Number of staff – working	
Number of staff – required for assistance	
Stock requirement	

## APPENDIX 1

### Information about influenza – FACT SHEET FOR STAFF –

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#### **What is influenza?**

Influenza (the flu) is a very infectious illness caused by a virus. It is much more serious than a common cold and can leave you ill for up to 10 days.

Symptoms of the flu include: a high fever, headache, muscle aches and pains, fatigue, cough, sore throat, or a runny nose. It may take up to three days to feel symptoms after you catch the flu (the incubation period).

Anyone can get the flu – being fit, active and healthy does not protect you from getting this virus.

Anyone can die from the flu – it kills at least 100 New Zealanders every year, including some young, fit people.

#### **What can you do to prevent getting the flu?**

Every year, ask your doctor to vaccinate you against the flu. Because the influenza virus changes frequently, you need to get vaccinated every year to stay immune. Some people can get this free. Vaccination is free for people aged 65 years and over, and adults and children with certain long-term (chronic) conditions. Your GP will know if you are eligible for a free vaccination.

The flu is very easily spread through coughs and sneezes. If you have the flu, avoid public places and close contact with other people. Always cough and sneeze into a disposable tissue. Put the tissue in a rubbish bin and wash your hands well afterwards.

#### **What are the symptoms of pandemic influenza?**

Generally, the symptoms are similar to those for people infected with seasonal influenza, although the severity of the illness may differ. Symptoms generally appear three to seven days after exposure and can last up to seven days.

#### **How likely is an influenza pandemic?**

It is certain an influenza pandemic will happen one day.

#### **What is New Zealand doing to prepare for an influenza pandemic?**

New Zealand has been planning for this for some time. The Ministry of Health has a national pandemic plan, and District Health Boards have local plans. The New Zealand Government, following the advice of the World Health Organization, is stockpiling anti-viral medicine to help reduce the impact of a pandemic on New Zealanders.

#### **Is there a vaccine available for a flu pandemic?**

The Ministry of Health has a formal arrangement with Australia's CSL Ltd - the only influenza vaccine manufacturer in the Southern Hemisphere - which gives us a guaranteed supply if we need a pandemic vaccine. However, manufacture of such a vaccine can only start once we know the strain of the virus causing the pandemic, and so a vaccine is not currently available.

## **What could happen in an influenza pandemic?**

A pandemic could mean so many people are sick that it will affect workplaces, schools, hospitals and many other services. There would be public announcements on TV, the radio and through other media channels that there is an influenza pandemic. Some workplaces and schools may close. Normal health and other services may not be available for several weeks. You may be asked to care for yourself and others at home.

## **How can you prepare for an influenza pandemic?**

- Talk to your family and friends about health hygiene – hand washing, and safe coughing and sneezing.
- Make sure you have an emergency survival kit. Plan for having about a week's worth of essential supplies such as non-perishable food, as well as plenty of fluids. For further information see the Ministry of Civil Defence and Emergency Management website on What to Do in a disaster.
- Include paracetamol (for fever) in your home emergency survival kit.
- Have a plan for what you and your family would do if you had to stay at home during a pandemic.

## **How do you care for yourself and your family during an influenza pandemic?**

- Stay home if you are sick and keep away from other people – avoid visitors and visiting other people.
- Wash and dry your hands after you cough, sneeze, wipe or blow your nose (or your child's nose), use the bathroom or toilet. Wash and dry your hands before you prepare food and eat, and when you are looking after sick people.
- Keep coughs and sneezes covered. Tissues are best. Put the tissue in a rubbish bin.
- Give people who have a fever and/or diarrhoea plenty to drink.
- Give paracetamol for fever. *Do not give aspirin to children under 12.*
- Try to keep well people and sick people apart.
- Sharing bedding, clothing and utensils may spread infection, but you do not need to wash a sick person's bedding, clothing and utensils separately from the rest of the family's.

## Appendix 2 Protection information

### Personal Protective Equipment

#### How is pandemic influenza transmitted?

Primarily, human influenza is transmitted from person to person via virus-laden large droplets (particles  $>5 \mu\text{m}$  in diameter), which are generated when an infected person coughs or sneezes. These large droplets can then be directly deposited onto the mucosal surfaces of the upper respiratory tract of susceptible people who are near the infected person (i.e. within 1 metre). Transmission may also occur through direct contact with infectious (wet) respiratory secretions, such as by touching door handles, taps, lift buttons, stairwell railings, keyboards, etc that have deposits of the infected secretions on their surfaces, and then hand-to-face contact.

#### Health care workers

Health care workers are at a greater risk of pandemic influenza than the general public because they will often be caring for infected people who might be hospitalized or seeking primary health care services.

#### General and specific infection prevention and control measures

All Residential facilities should have effective policies and processes in place to ensure people with symptoms of respiratory disease do not place others at risk of infection.

#### Hand hygiene

Hand washing is still the single most important measure to reduce the risks of transmitting infectious organisms from one person to another.

Hands should be washed regularly with soap and water, an alcohol-based hand rub or an antiseptic hand wash and then thoroughly dried, preferably using disposable tissues or towels.

Hands should always be washed and dried after contact with respiratory secretions or after touching surfaces that have been contaminated with respiratory secretions. Health care workers dealing with respiratory secretions should be wearing gloves as per the Standard Precautions.

See Standard Precautions: [www.cdc.gov/ncidod/hip/ISOLAT/std\\_prec\\_excerpt.htm](http://www.cdc.gov/ncidod/hip/ISOLAT/std_prec_excerpt.htm)

Hand-to-face contact, which occurs during such activities as eating, normal grooming or smoking, presents significant risks because of the potential for transmitting influenza from surfaces contaminated with respiratory secretions, and for this reason, hands should always be washed and dried before any activity that involves hand-to-face contact.

## **Respiratory hygiene/cough etiquette**

People with respiratory infection symptoms should practise the following cough/sneeze etiquette whenever they are in the presence of another person.

All symptomatic people should:

- avoid close contact (less than 1 metre) with other people
- cover their nose and mouth when coughing or sneezing
- use disposable tissues to contain respiratory secretions
- immediately dispose of used tissues in the nearest waste receptacle
- immediately wash and dry their hands

## **Using masks**

People with respiratory infection symptoms should consider using a disposable surgical mask to help prevent exposing others to their respiratory secretions.

Any mask must be disposed of as soon as it becomes moist or after any cough or sneeze, in an appropriate waste receptacle, and hands must be thoroughly washed and dried after the used mask has been discarded.

Patients with respiratory infection symptoms in health care institutions should be masked to contain respiratory secretions at any time they present a potential risk to unprotected people.

## **Recommendations for PPE use**

Personal protection equipment (PPE) includes masks, goggles, eye/face shields, gloves, gowns and aprons. Varying levels and types of PPE are required, depending on the level of exposure and the risk of transmission.

Whatever the level of PPE to be used, education and training is necessary to ensure the equipment is used and disposed of correctly, to maintain the equipment's effectiveness.

## **Using disposable surgical masks, gloves and gowns/aprons**

Disposable surgical masks are recommended for first responders and health care/support workers in a health care setting who are at risk from droplet transmission.

Disposable gloves are recommended as a means of reducing the likelihood of influenza transmission when handling objects contaminated with respiratory secretions. Apart from health care settings, the use of gloves is less important than careful hand washing. The use of gloves does not replace the need for hand washing.

Disposable gowns or splash resistant aprons may also reduce opportunities for transmitting influenza.



## **Gloves and gowns/aprons (full PPE)**

Health care workers should wear particulate respirator masks, eye protection, gloves and gowns/aprons (i.e. full PPE) when there is a high risk of direct contact with respiratory secretions, particularly via aerosols.

In most other settings a disposable surgical mask (with or without eye protection and disposable gloves) will provide sufficient protection from droplet transmission for health care workers in close contact and/or providing direct personal care to patients with pandemic influenza.

### **Using these measures helps comply with the Health and Safety in Employment Act 1992**

The Health and Safety in Employment Act 1992 requires the following measures to be taken.

“Section 6: All practicable steps

Every employer shall take all practicable steps to ensure the safety of employees while at work; and in particular shall take all practicable steps to:

- provide and maintain for employees a safe working environment
- provide and maintain for employees while they are at work facilities for their safety and health ...

Section 28: Employees may refuse to perform work likely to cause serious harm

- An employee may refuse to do work if the employee believes that the work that the employee is required to perform is likely to cause serious harm to him or her ....”

Employers must take all practicable steps to mitigate the risk and protect employees, especially those at high risk, such as health care personnel, support staff and first responders (fire/police/ambulance/other emergency workers) from pandemic influenza.

These workers should be educated in hand hygiene, cough etiquette, social distancing and the use of appropriate PPE and should be provided with the supplies required to carry out these techniques. Employers need to actively plan to cover their risks and the risks to their workers and the public.

The above measures should assist employers with compliance.

**TABLE 1: SUMMARY OF PROTECTION MEASURES**

Protection measure	Where applicable
Hand hygiene, cough etiquette, ventilation	Everyone, all the time
Organisational policies	Every organisation, all the time
Social distancing	Everyone, whenever practical
Protective barriers	In situations where regular work practice requires unavoidable, relatively close contact with the public
Disposable surgical mask	Workers in any community or health care setting who are caring for the sick (this includes first responders) Also as a possible adjunct to protective barriers
Disposable particulate respirator mask, eye protection, gloves, gown/apron	Health care workers participating directly in close contact patient care when there is a high risk of contact with respiratory secretions, particularly via aerosols (mostly inpatient settings)



## Appendix 3 Estimate for PPE stock

### Scenario for estimation example:

#### Estimations based on

Gowns - not being soiled

Mask - 4 hours filtration unless wet

#### **2 Staff members for up to 8 residents per shift**

#### **PPE required**

2 Gowns per shift x 3 shifts = 6 gowns per 24 hours  
= 6 x 7 days = 42 gowns per week  
Number of gowns per carton = 50 = average 1 box per week

2 pairs of gloves x 8 residents x 3 shift = 48 pairs of gloves per 24 hours  
= 48 x 7 days = 336 gloves per week  
Number of gloves per box 100 = average 3.5 boxes

2 duckbill masks x 8 residents x 3 shifts = 48 masks  
= 48 x 7 = 336 masks per week  
Number of masks per box = 50 = average 6-7 boxes

4 N95 Masks per shift x 3 shifts = 12 masks per 24 hours  
= 12 x 7 days = 84 N95 Masks per week  
Number of masks per box = 35 = average 2.5 boxes

**NOTE: These numbers are only estimates and may vary during the phases of a pandemic. There are many variables to be considered i.e. practice, resident's acuity (re how much care is required and manual handling etc), potential for contamination of PPE.**

Appendix 4  
TEMPLATES: EXAMPLES

Template: Influenza Notification

**Influenza is a contagious disease. There is currently an increase in the numbers of people in New Zealand with influenza. In order to reduce the spread of influenza in the workplace, the following is required of everybody.**

**DO NOT COME TO WORK if you have:**

Chills, shivering and fever (temp > 38°C)

Onset of muscles aches and pains

Sore throat

Trouble breathing

Sneezing

Tiredness



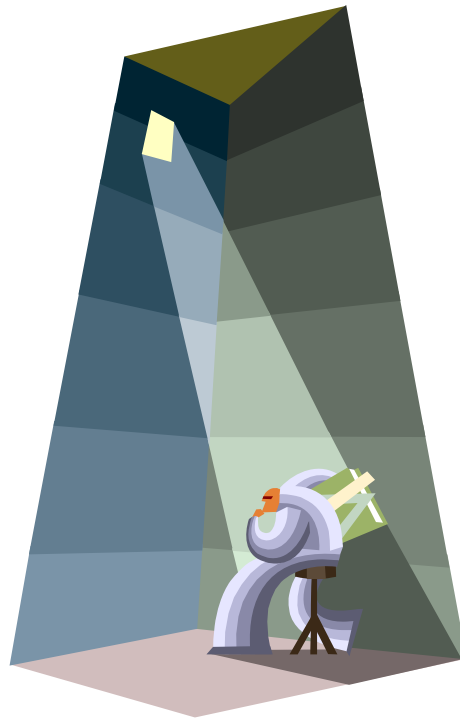
Template: For entrances

# HAVE YOU BEEN FEELING UNWELL?



**Please don't share your bugs with our  
residents - love to see you when you're  
better**

## **RESIDENT ISOLATION**



Please USE  
**ALL PROTECTIVE PRECAUTIONS**

Visitors must inquire at reception before  
entering

# ATTENTION ALL VISITORS



Some of our residents are suffering from illness/influenza

We are trying to prevent this illness/influenza from spreading

**If you choose to visit we request you only visit the resident you have come to see, wash your hands before and after your visit**

## Thank you





**Appendix 6  
Communication Fax Template**

**(Facility logo & contact details) FACSIMILE**

**TO**

**Emergency Operations  
Centre**

---

**FROM**

---

**DATE**

---

**FACSIMILE NO.**

---

**NO. OF PAGES**

**Data Update:**

Number of beds in facility:

.....

Occupancy

.....

Number of very unwell

.....

Number of staff working

.....

Number of staff - required for assistance

.....

Stock required

.....

Issues:

.....

.....

.....

.....

# **PART THREE PANDEMIC RECOVERY SERVICE CONTINUITY**

Recovery

Contingency Plans for equipment failure

Contingency Plans for security failure

## SHORTAGES

Shortages of supplies may occur because of increased demand during the pandemic (i.e. cleaning supplies).

Shortages may also occur because of disruptions in transportation systems or inability of suppliers to meet demands. Some New Zealand supplies travel considerable distances by truck, train, ship or aircraft, and are vulnerable to any disruption. Absences of workers/drivers and other transportation staff may affect both the production and delivery of needed supplies. Supply lines may also be affected by mandated or self-imposed travel restrictions (e.g. transporters unwilling to travel through or to infected areas).

## BUSINESS RECOVERY – Key focus

**Overall aim:** Best you can

- Caring for residents/families – communication/debriefs/critical incidents
- Caring for staff – staff breaks/debrief etc
- Stocktake of supplies
- Terminal cleaning
- Finance – lost recovery
- Service continuity - Contingency Plans

## SERVICE CONTINUITY

### Contingency Plans for Equipment Failure

Problem	Impact	Contingency
Electricity	Inability to supply normal services Sewage unable to be pumped Water supply failure Hygiene risks Perishable foods at elevated temperatures Failure of ovens Failure of dishwashers Unable to use electrics	Back-up generators Promote stored boiled water Water restrictions Reduced perishable supplies held Promote chilly bins Supply cold food Access other sites for cooking of hot foods Utilise single eating utensils and sanitise trays between use Use gas
Emergency Generator Failures	Limited switching capability	

Lighting failure	Resident and staff compromised	Adequate lighting on essential power Torches and batteries available Ensure areas are always clear of hazards especially Fire Exits
Sewage system failure	Inability to dispose of wastes	Restrict water/sewage usage
Water supply failure	Fire sprinklers and wet risers compromised	Promote hand washing solutions
Oxygen and suction supply	Inability to provide	Portable oxygen Contact DHB
Refrigeration	Unable to store milk and food stuffs	Utilise chilly bins and slicker pads Only essential items refrigerated Contact Pharmacy - re medicine storage
Hot water supply failure	Unable to provide basic hygiene requirements	Heat water on gas
Heating/air conditioner failure	Inability to regulate environment	Essential areas on power Generators for back-up Use of fans Open doors and windows
Failure of call bell systems	Residents/staff unable to call for assistance	Hand bells Increased staff vigilance Increase staff ratio if able)
Pan Room – sluice	Unable to clean pans, urinals and bowls properly	Dispose of excretions in toilet Cold water soak disinfecting
Resident hoist inoperable	Risk to resident/staff - staff injuries	Manual hoists (sliding sheets, lifting pads) Additional staff for heavy lifting (if able)

## Contingency Plans for Security Systems Failure

<b>Problem</b>	<b>Impact</b>	<b>Contingency</b>
Security systems failure	No knowledge of duress to in-house residents and outlying areas	Utilise a runner system
Security system failure	Loss of ability to secure site and protect residents and staff Residents doors would default to exist mode Security cameras not functioning Swipe cards not functioning	Increase staff vigilance Staff monitoring entrances Utilise volunteers Essential power (Refer to Emergency Plan)
Fire system failure	No knowledge of fire danger No normal system available to alert	Battery back-up for alarms Staff to monitor facility (Refer to Emergency Plan)

# PART FOUR

Page Number

References  
Acknowledgments

## REFERENCES

### **Hawke's Bay District Health Board - Pandemic Plan Template for General Practice – June 2013**

Healthcare Providers New Zealand - In Touch Magazine - Issue 40 16 December 06  
(Permission granted by Chief Executive Officer Healthcare providers New Zealand)

### **Healthcare Providers New Zealand. Prepared by Bug Control Infection Control Advisory Services. Management of Pandemic Influenza in Residential Care**

**Business Planning Guide:** [http://www.med.govt.nz/irdev/econ\\_dev/pandemic-planning/](http://www.med.govt.nz/irdev/econ_dev/pandemic-planning/)  
Ministry of Health <http://www.moh.govt.nz/pandemicinfluenza>

WHO [http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

CDC <http://www.cdc.gov/flu/avian/>

## ACKNOWLEDGMENTS

Writer and researcher of Plan	Leigh White Healthcare Providers (HB) Executive
Critique of Plan	Laureen Sutherland, Diana Triplow, Geoff Yates Healthcare Providers (HB) Executive
Advisory Support	Janet Hill, Stuart Roper, Derek Morrison, Steve Laughlin Healthcare Providers (HB) Executive
Advisory Support (DHB)	Sandra Bee HBDHB Emergency Response Advisor
Permission to use HCP (NZ) Logo	Martin Taylor CEO Healthcare Providers New Zealand



