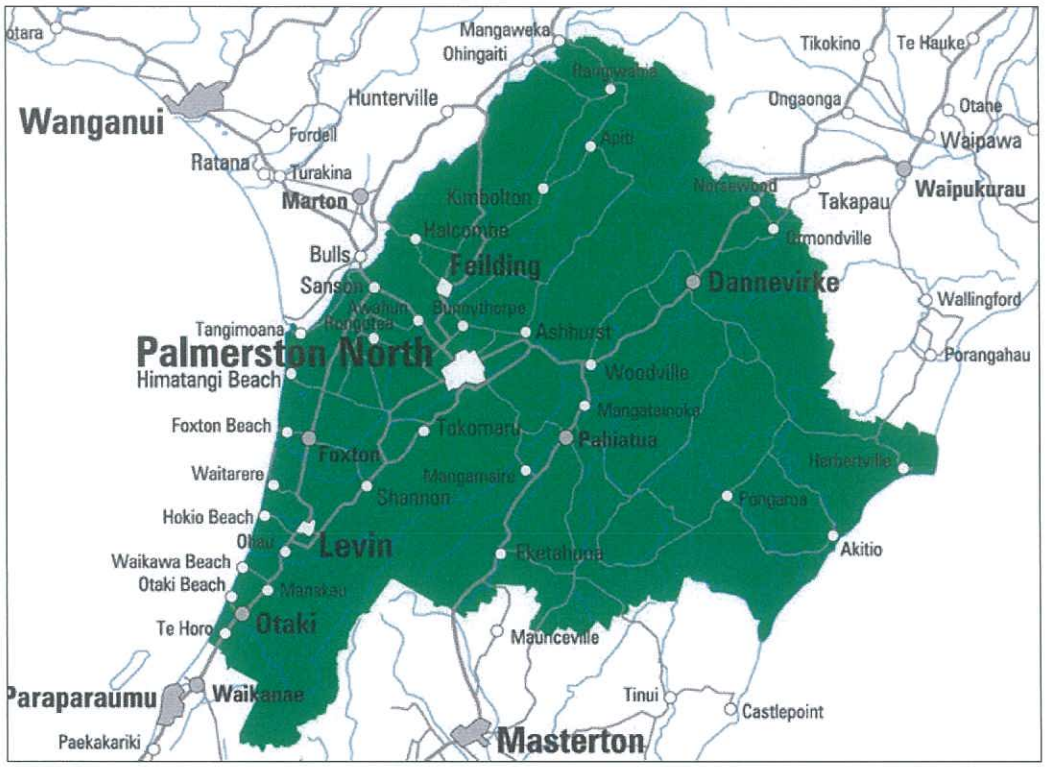
MidCentral District Health Board
Te Pae Hauora o Ruahine o Tararua



MIDCENTRAL DISTRICT HEALTH BOARD

PANDEMIC PLAN

2019-2022

Last Updated: March 2019

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APPENDICES

1. Background

A pandemic is a worldwide occurrence of an infection related disease. Influenza is the disease most likely to cause a world-wide pandemic. Notable pandemics during the past hundred years were in 1918, 1957, 1968 and 2009.

In each case the pandemic was caused by a major change in the antigenic structure of the influenza virus, which meant the population had little or no experience of the altered virus, and so had inadequate immune protection against it.

The World Health Organisation (WHO) considers that there is always a risk of an influenza virus causing an influenza pandemic. WHO recommend all countries undertake urgent action to prepare for such a pandemic, hence planning documents have been prepared at national, regional and local level.

New Zealand pandemic planning is based around a six-phase strategy:

1. **Plan For It** (planning and preparedness)
2. **Keep It Out** (border management)
3. **Stamp It Out** (cluster control)
4. **Manage It** (pandemic management)
5. **Manage It: Post-Peak**
6. **Recover From It** (recovery).

These phases represent the main strategies to be applied and the specific objectives of each strategy, and are not exclusive to each phase. For example, planning is a continuous process through all phases, but is the primary focus of the inter-pandemic Plan For It phase; border management activities occur in several phases, but enhanced measures are the focus of the Keep It Out phase.

The six-phase strategy is a way to focus attention on the main task at any particular time, and represents a simple way to structure plans and activities.

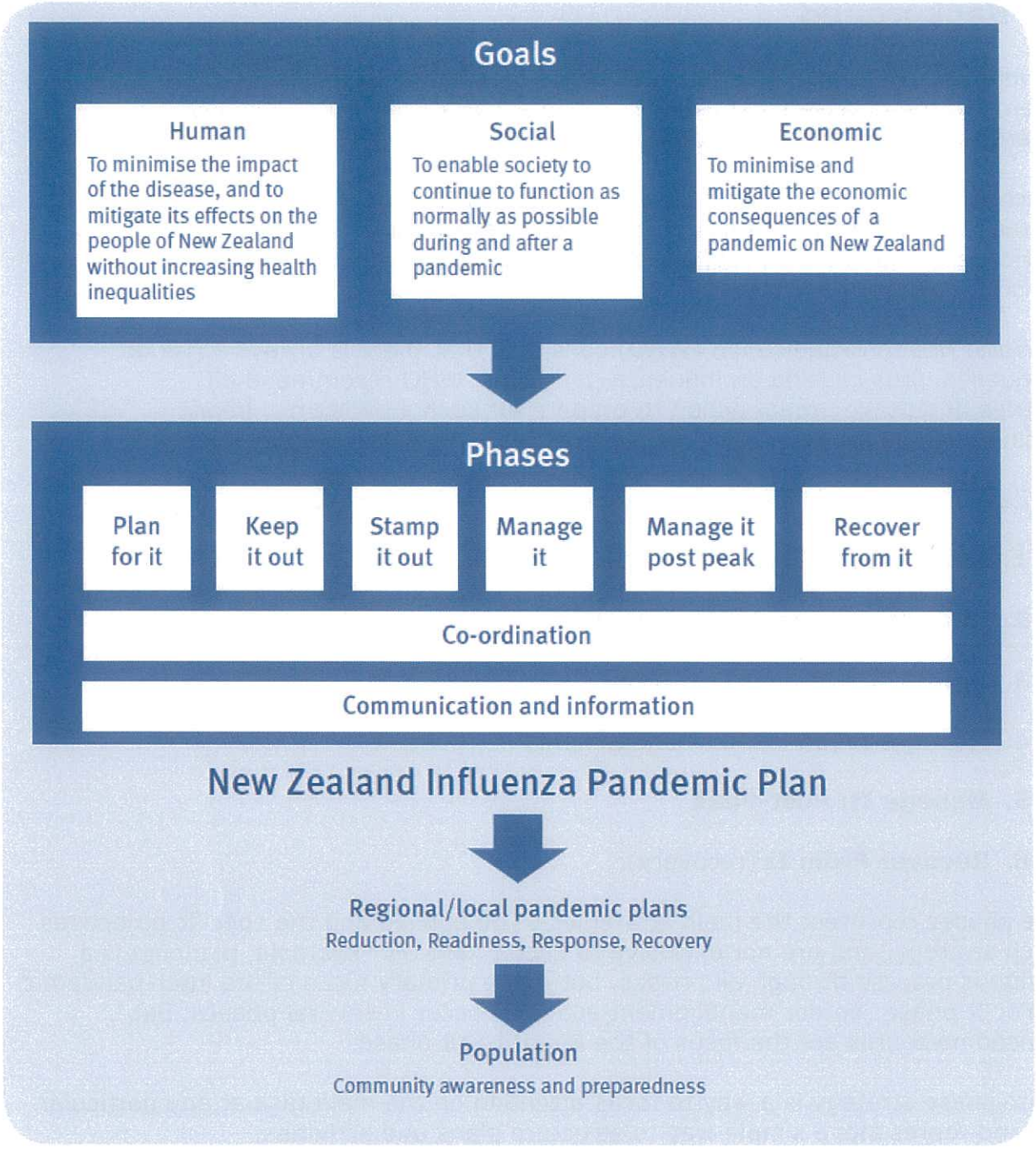


Figure 1: New Zealand strategic approach to a pandemic

2. Purpose

The primary purpose of this document is to establish a framework and define the relationships needed to respond to a pandemic affecting communities within the MDHB boundaries. The guiding principles and objectives of this plan are similar to those identified in the New Zealand Influenza Pandemic Action Plan (NZIPAP) (Version 14).

The guiding principles of this plan are to:

- Provide the greatest possible protection for the population at large, all health service workers, and health and disability service consumers.

- Protect and maintain normal health service delivery for as much of the health service as possible.
- Provide the best available clinical care.

The objectives of this plan are to:

- Describe the context within which MidCentral DHB will function during a pandemic.
- Clarify the roles and responsibilities of MidCentral DHB, and of local providers such as hospital, primary care, and public health services.
- Describe the DHB emergency management system.
- Describe the mechanism through which this plan will be activated and stood down.

MDHB will carry out the response activities described in this plan in collaboration with the Ministry of Health, Primary Health and key partners.

Activation of the plan will:

- Ensure rapid, timely and coordinated action.
- Ensure provision of current and authoritative information for health professionals, the public and media, at all stages of the response.
- Reduce morbidity and mortality to the greatest extent possible.
- Ensure that health service "business as normal" is protected to the greatest possible degree.
- Minimise the social disruption and economic losses associated with the pandemic.

3. Planning Assumptions

The Ministry states:
"These planning assumptions are produced for planning purposes only. Planning assumptions deliberately represent extremes and are not predictions."

The Ministry of Health has produced possible estimates of cases and deaths due to a pandemic. A worst-case scenario is presented to ensure adequate preparation. The Standard Planning Assumptions are for 40 percent incidence, and 2 percent case fatality rate, over an 8 week period. This is essentially the November 1918 pandemic wave applied to the current New Zealand population. For MidCentral District Health Board the following figures are presented in Table 1.

Week	1	2	3	4	5	6	7	8	Total
Receive Medical Consultation	205	1022	4904	6538	4904	1634	817	408	15528
Hospital Level Care	68	340	1635	2179	1635	545	272	136	6810
Deaths	13	68	327	436	327	109	54	27	1361

Table 1 – Standard Planning Assumptions

The following assumptions underpin the planning done by MDHB:

1. Human-to-human transmission will become established overseas, and New Zealand will have forewarning of the threat.
2. Introduction of the infection to New Zealand will be via a human entering the country.
3. The height of the epidemic is expected to be at weeks 3-5, once person-to-person spread is fully established in any given area.
4. The majority of cases will be managed in the community and will not need hospital care.
5. The national pandemic stock includes medication *oseltamivir (Tamiflu)* which will be used mainly for early treatment of cases; some will be for post-exposure prophylaxis of contacts; it is not likely to be widely used for pre-exposure prophylaxis.
6. As a new strain of influenza vaccine development may take approximately 6 months, we are unlikely to keep a new form of influenza out of the country for this length of time.
7. Individual health providers are responsible for keeping an initial stock of personal protection equipment for use by their staff.
8. A high level of public information will be provided at a national level.
9. National protocols are in place for issues such as management of cases at airports and in the community, management of contacts, closure of facilities, use of 'pandemic stock' medications supplied by the Ministry of Health, such as *oseltamivir (Tamiflu)*.
10. Overall management of the local response will be coordinated through a response management team in accordance with the Coordinated Incident Management System (CIMS) model.

4. Planning Structure

District Health Boards are the lead agencies for planning and responding to pandemics (and other health emergencies) at a local level. District Health Board emergency planning responsibilities are set out in the Operational Policy Framework (NFSL OPF) document that is part of the DHB planning package the Ministry of Health revises each year in conjunction with the wider sector.

The evolving emergency planning and management section in the Operational Policy Framework (NFSL OPF) details DHBs' specific responsibilities in planning for emergencies of all kinds, including pandemics.

This plan will be reviewed regularly in line with national strategies, and with key national and regional documents, notably:

- National Health Emergency Plan
- Central Region District Health Board's Health Emergency Plan
- MidCentral DHB Health Emergency Plan
- NZ Influenza Pandemic Plan: A framework for action
- Civil Defence Emergency Management Act 2002 (CDEM Act)

Other key documents:

- Guidance on Community Based Assessment Centres and other Support Services (National Health Emergency Plan).
- Primary Care Emergency Management, Primary Care Pandemic Toolkit (National Health Emergency Plan).
- Getting Through Together, Ethical Values for a Pandemic (National Ethics Advisory Committee).
- The New Zealand Coordinated Incident Management System (CIMS).

Cross-references and supporting material
The latest versions of all National Health Emergency Plans and associated documents are available on the Ministry of Health Emergency Management web page: www.health.govt.nz/our-work/emergency-management/national-health-emergency-plan

5. Roles and Responsibilities

Ministry of Health

The Ministry has overall responsibility for policy development and national planning.

Responsibilities include:

- Overall responsibility for policy development and national planning.
- Initiation and coordination of any national health sector emergency response.
- Supporting District Health Boards (DHBs) in the event of a localised outbreak.

MidCentral District Health Board

Responsibilities include:

- Developing and maintaining major incident and emergency plans.
- Initiation and coordination of the local health sector emergency response.
- Establishing a response team based on a CIMS (Coordinated Incident Management System) structure, with an appointed Incident Controller.
- Appointment of an Action Committee to ensure appropriate technical advice to the Incident Controller.
- Establishing and maintaining a "single point of contact" with the Ministry of Health.

Primary Health Organisations (PHO) and Iwi Health Organisations

The Central PHO is the only PHO in the MidCentral DHB area.

Responsibilities include:

- Management of the general practice response to a pandemic and initiate Flu clinics and Community Based Assessment Centres as required by the MDHB EOC, while assisting with maintenance of business as usual.
- The human resourcing of CBACs (clinics, triage and other services as required).
- The diagnosis and isolation of patients early in the process ("Keep it out" and "stamp it out" phases).
- Central PHO accessing a pool of up to 24 nurses and 24 doctors who could be redeployed from general practices.
- Advising general practices on responsibility for their own emergency management plans, and providing representation on an Action Committee as requested by the MDHB.
- Encouraging continuity planning for general practices and the flexible use of the local health workforce - at times of high staff absenteeism due to influenza.
- Advising general practices that during an established pandemic infection control resources and expertise will be made available from the MDHB. It is expected that Central PHO will have established infection prevention and control policies and procedures in line with Infection Prevention and Control Standards NZS8134.3:2008.
- Central PHO will encourage good quality IT systems within general practices, to ensure good communication between providers.
- Central PHO will input into the MDHB planning process and CIMS response structure when requested.

Secondary Care

Palmerston North Hospital and associated services will be responsible for patients requiring inpatient admission due to clinical needs. These patients may also require diagnostic procedures and isolation.

Issues of particular importance include protection of staff and other patients, the ongoing provision of other services, transfer arrangements to other hospitals, and provision of diagnostic services, notably laboratory and radiology.

Secondary care services may also be involved in distribution of medication, vaccines, and supplies of personal protection equipment.

Public Health

The Medical Officer of Health (MOH) has various statutory powers for control of infectious disease, including special powers (ss 70 & 71 Health Act 1956) which require the authorisation of the Minister of Health or declaration of a state of emergency under the Civil Defence Emergency Management Act 2002. The Epidemic Preparedness Act 2006 strengthens the emergency powers of the MOH under the Health Act 1956, in the threat or emergence of an epidemic.

Public Health will have a particular role in all pandemic phases.

Action Committee

The committee will advise on the activation of the local emergency response. Once the response is activated the committee will provide advice to the Incident Controller. The core membership of the committee is identified as below:

- Medical Advisor (chair)
- MDHB Chief Executive (ex officio)
- Medical Officer of Health
- Central PHO representative
- Organisational Leadership Team (OLT) representative
- Infection Prevention and Control representative
- Manager, Risk and Emergency Planning
- ID Physician
- Medlab Central Microbiologist
- Communications
- Invited representation as required

Other Health Providers

Health providers are encouraged to prepare their own response plans so that they can continue to provide services in the face of increased demand, and staff illness.

Civil Defence

A pandemic is a public health emergency that rapidly takes on substantial political, social, and economic dimensions. A broad range of private sector partners and government agencies, in addition to those dealing with public health, should be engaged in pandemic preparedness planning.

The accountability for planning for, and responding to, human pandemic will be led by the Ministry of Health under the National Health Emergency Plan: Pandemic Action Plan.

Health is identified as the Lead Agency for a pandemic response and will be supported by the local Civil Defence Emergency Management groups.

All response actions by agencies in support of health authorities will be as outlined in the Manawatu – Wanganui CDEM Group Plan.

Regional Coordination Team

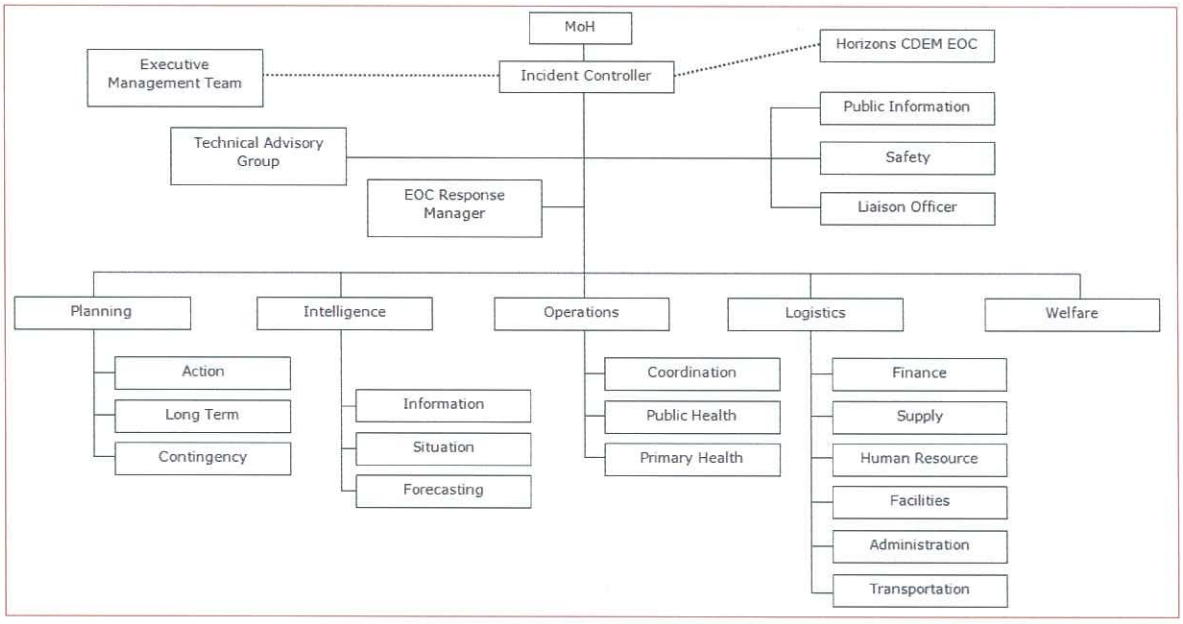
A Regional Coordination Team will be identified and activated if needed. This is likely to function as a communication network between the Incident Controllers and/or Chief Executives of the six regional District Health Boards.

Other Agencies

The District Health Board acknowledges the roles that will be played by many agencies, such as Local Authorities, Police, Defence, Ministry of Education, the local business community, etc.

6. DHB Emergency Response and Activation

The Coordinated Incident Management System (CIMS) is New Zealand's model for the systematic management of all emergency responses. It is designed primarily to improve the management of the response to emergency incidents through effective coordination between major emergency services. All emergency services in New Zealand use a CIMS organisational structure to staff their emergency operations centres.



The CIMS organisational structure is built around the following major elements:

- Control – coordinates and controls the response.
- Intelligence – collection, analysis and dissemination of incident information and intelligence related to the context.
- Planning – multi-function and multi-agency planning of response activities.
- Operations – multi-function and/or multi agency direction, coordination and supervision of response elements.
- Logistics – acquisition and management of facilities, services and materials to support response activities.
- Public information management – develops and delivers messages to the public, directly and through the media, and liaises with the community if required.

- Welfare – coordinates the delivery of emergency welfare services and resources to affected individuals, families, whanau and communities.

Cross-references and supporting material
Further information on CIMS can be found in The New Zealand Coordinated Incident Management System: Safer communities through integrated emergency management.

The application of CIMS does not detract from or replace the normal day-to-day vertical management and service delivery, and horizontal dependencies and collaboration within DHBs and other health agencies. Rather, it incorporates management, dependencies and collaboration into a coordination model that goes beyond normal processes. Normal clinical, managerial and other relationships are maintained within units and agencies involved in a response. CIMS, as such, has no impact on the identity of individual services or the way they carry out their statutory responsibilities, although emergency management requirements may have implications for priorities and reporting lines.

Emergency Operations Center (EOC)

The EOC will be activated when a Code Yellow is declared.

Purpose of the EOC

The purpose of the EOC is to provide a central location for a MDHB response to an emergency that enables the MDHB Incident Controller to direct and co-ordinate the use of personnel, material, information, services and other resources for the overall response effort during and after an emergency.

Functions of the EOC

The EOC is activated to perform the following functions during an emergency:

- Collect, analyse and disseminate information on the emergency (including the provision of a public information services)
- Control the overall response effort in co-operation with local emergency services and other agencies
- Coordinate logistic support, including aid from other organisations
- Keep the Regional Response Coordination Centre, or NHCC (dependent upon scale of emergency) informed of situation.

The MDHB EOC is located in Northside (Palmerston North Hospital Campus).

7. Notification and Activation Process

Table 1 summarises the response stages as defined by WHO and the Ministry of Health. It is compiled from the New Zealand Influenza Pandemic Action Plan. Our local response level will be determined mainly by the national response level.

Note: *Appendix 1* documents the responsibilities of the DHB and other Agencies for each WHO phase.

<table>
<tr><th>WHO PERIOD*</th><th>WHO PHASE*</th><th>NZ STRATEGY</th><th>MoH/DHB ALERT CODE***</th><th>DHB Actions</th></tr>
<tr><td rowspan="2">Interpandemic Period</td><td>Phase 1</td><td rowspan="3">Planning</td><td>N/A</td><td rowspan="2">• Advise all relevant staff, services and service providers
• Notify clinical and public health staff of case definitions, clinical advice, and control measures
• Review clinical emergency plans</td></tr>
<tr><td>Phase 2</td><td rowspan="2">WHITE (Information / Advisory)</td></tr>
<tr><td rowspan="4">Pandemic Alert Period</td><td rowspan="2">Phase 3</td><td>YELLOW (Standby)</td><td>• Prepare to activate DHB CIMS structure
• Prepare to activate Regional Co-ordination Teams
• Advise and prepare all staff, services and service providers
• Manage own DHB clinical response and public health response if impacted by emergency</td></tr>
<tr><td>Phase 4</td><td>Border Management</td><td rowspan="3">RED (Activation)</td><td rowspan="3">• Activate DHB CIMS structure
• Activate Regional Co-ordination Teams
• Manage own DHB response, as required under regional co-ordination arrangements.</td></tr>
<tr><td>Phase 5</td><td rowspan="2">Cluster [1]Control</td></tr>
<tr><td>Pandemic Period</td><td>Phase 6</td><td>Pandemic Management</td></tr>
<tr><td>Post Pandemic Period</td><td>Post Pandemic Period</td><td>Recovery</td><td>GREEN (Stand Down)</td><td>• Deactivate Regional Co-ordination Teams (where activated)
• Deactivate DHB CIMS structure
• Resume normal functions</td></tr>
</table>

Table 1: Response stages as defined by WHO and the Ministry of Health.

[1] Definition: https://www.health.govt.nz/publication/guidelines-public-health-services-cluster-control-pandemic-influenza

Table 2 summarises the six phase strategy of New Zealand pandemic planning and includes potential triggers for the different phases plus specific objectives for each phase.

Phase	Potential Trigger	Specific Objectives
Plan for it *Planning and preparedness*	Level of influenza at normal seasonal levels	Plan and prepare to reduce the health, social and economic impact of a pandemic on New Zealand Deal with disease in animals, if required
Keep it out *Border management*	Sustained human-to-human transmission of a novel influenza virus overseas in two or more countries	Prevent, or delay to the greatest extent possible, the arrival of the pandemic virus in New Zealand
Stamp it Out *Cluster control*	Human pandemic strain case(s) found in New Zealand	Control and/or eliminate any clusters that are found in New Zealand
Manage It *Pandemic management*	Multiple clusters at separate locations, or clusters spreading out of control	Reduce the impact of pandemic influenza on New Zealand population
Manage It: Post-Peak *Transition to Recover From It phase, and plan for a resurgence or second wave*	New Zealand wave decreasing	Expedite recovery, and prepare for a re-escalation response
Recover From It *Recovery*	Population protected by vaccination, or pandemic abated in New Zealand	Expedite the recovery of population health, communities and society where affected by the pandemic, pandemic management measures, or disruption to normal service

Table 2: The six phase strategy of New Zealand pandemic planning.

Note:

- The activation and alert information from the Ministry of Health will be sent to the MDHB single point of contact.
- Most interventions (in particular in the Keep It Out and Stamp It Out phase) rely on rapid implementation for their efficacy. Decision-makers can therefore, expect they will need to make critical decisions in real time on many of these interventions in a situation of considerable uncertainly and with a lack of information.
- Health agencies should not wait until Code Red is announced in order to mount response phase actions necessary to deal with a mild to moderate pandemic wave.

Code White (Information) received from the Ministry of Health

The single point of contact notifies the Action Committee and the Chief Executive Officer

The single point of contact assesses the code white information and convenes the Action Committee or wider group (if appropriate) to analyse the code white information and to ensure that suitable resources and process' are in place

Code Yellow (Standby) received from the Ministry of Health

- Prepare to activate the MidCentral DHB Plan in conjunction with the MidCentral DHB Pandemic Plan
- Prepare to activate the Central Regional Co-ordination Team
- Activate the Communication Plan within the MidCentral District Health Board Health Emergency Plan
- Activate the EOC

Code Red (Activation) received from the Ministry of Health

- Activate the MidCentral District Health Board's Health Emergency Plan in conjunction with the MidCentral District Health Board Pandemic Plan
- Activate CIMS
- Activate the Regional Co-ordination teams

Code Green (Stand down) received from the Ministry of Health

- De-activate the Central Regional Teams (where activated)
- De-activate the DHB CIMS structure and resume normal functions
- Resume normal function

8. Health Sector Response

Overview of Functions during Phases of Response

Stage	DHB	Primary Care	Secondary Care	Public Health
Prepare for it	Local Pandemic Plan Business Continuity Plans Staff Education			
Keep it out	Coordination Liaison Communication Surveillance Intelligence			In line with national border control policy
Stamp it out		Likely source of notification of suspect case	Possible use of facilities for diagnosis and/or isolation	Coordination of initial response to case and contacts
Manage it		Most case management through community based assessment centres Vaccination if available	Treatment of severe cases Transfer if needed Re-prioritisation of other work Vaccination if available	Limit social interaction through possible use of special powers Health Act Vaccination if available (via PHNs)
Recover				

Secondary Care Response

1. "Stamp it out" phase:

Palmerston North Hospital can be used for isolation and investigation of initial cases. Initial tests, including nasopharyngeal swab and a chest X-Ray, at the Emergency Department. Staff are trained in standard precautions for infection prevention and control.

After assessment the patient may be transferred to one of the two negative pressure rooms in the Surgical Ward. If ventilation is required this would be in the Critical Care Unit which has one negative pressure side room. Transfer to a higher level unit will be arranged if required (see Appendix 8).

2. "Pandemic" phase:

National guidance is expected in setting criteria for hospital admission with Palmerston North Hospital expected to only admit severely affected cases. Entry to the hospital system will be via the Emergency Department. When there are more than two cases in the hospital, a ward (probably Medical Ward) will be progressively set aside for Pandemic treatment purposes.

Decisions regarding changes to elective surgery will follow usual process. Vigilant infection control, results in no need to keep staff who have worked with influenza patients isolated after-hours. Staff will be requested to stay home if they are unwell.

The Central Region's Health Emergency Plan will be activated as necessary, if the hospital becomes overwhelmed. This will escalate to the National Health Emergency Plan.

Regional and National transfers may occur, with further consideration to local patient transfer options as necessary – these include private hospital, motels, boarding school facilities (if school is closed) and assistance from armed forces.

Information from the Ministry of Health will be updated on the website relating to clinical guidelines, appropriate medication, vaccine information, etc.:

http://www.health.govt.nz/our-work/emergency-management/pandemic-planning-and-response

A Pandemic Action Committee is expected to be activated and to keep staff informed during all stages of a pandemic.

Public Health Response

1. The Director General of Health designates officers at the local level. These officers have statutory duties and powers which they exercise "in accordance with any direction of the Director-General" (Health Act s.7A (6)).

2. The Medical Officer of Health receives notification of certain communicable diseases (including non-seasonal influenza), and has the statutory power to isolate persons likely to spread infectious diseases. In the event of a declared civil defence emergency, or if authorised by the Minister of Health, the Medical Officer of Health has special powers including restricting the congregation of people.

3. Public Health Unit is responsible at the "keep it out" phase of the epidemic to liaise with border control at international airports. RNZAF Ohakea base can accept international flights.

At the "stamp it out" phase, public health will have a lead role to ensure the effective isolation of case and contacts. For isolated cases the negative pressure isolation rooms at the hospital shall be used. Isolation at home should be adequate for most contacts. If there are more than two cases, or if the contacts are visitors to town, or cannot be effectively isolated at home, then some other form of accommodation will be needed. Post-exposure use of Tamiflu will follow national guidelines.

During the "manage it" phase, public health will NOT follow-up on individual cases and their contacts. There will be national publicity about infection control measures, and this will be re-enforced by local publicity and by direct messages to those seen at CBACs.

4. Reduction of Social Interaction: Some measures may be needed to reduce social interaction. These could range from public information and advice, through to use of the special powers of the Medical Officer of Health in the Health Act. Any decision to use these powers will be in consultation with the Ministry of Health, and in the context of the DHB emergency response structure. Enforcement of any measures such as restrictions on public congregation or travel will require the involvement of Police. Similarly, closure of schools will require consultation with the Ministry of Education.

5. Primary, Public Health and Secondary Care: As noted under "Primary Health Response", delivery of any vaccine will require the combined efforts of primary, public health and secondary care.

6. Public Health and Palmerston North Hospital: An important feature of the overall response will be the communication of key infection control information and advice, especially to high-risk settings such as boarding schools and rest homes. Public health will liaise with the hospital infection prevention and control staff to ensure consistent provision of such advice.

Primary Health Response

General practitioners will be guided by the Ministry of Health and supported by the MDHB, Public Health and the Central PHO in the setup of the following influenza /pandemic responses, if the situation escalates. The following identifies escalation and subsequent health response:

1. Streaming patients with Influenza Like Illness (ILI)

Various mechanisms can be used within a practice to see ILI patients and minimise the interaction between such patients and remaining practice population. These include:

- Telephone triage
- Virtual consultation
- Providing a separate waiting area
- Supplying masks for patients who are coughing
- Setting aside a particular time of the day for ILI patients

2. Influenza Clinics – to be established within pre-designated practices

An influenza clinic will be prioritised in all of the larger Integrated Family Health centres to see only ILI patients.

The following factors should be included:

- Telephone triage
- Base staff of one administrator, one doctor and one nurse, with more staff as required on a rotational basis
- Designated practices for this purpose that can activate at short notice.

These practices will be identified by PHO in consultation with the practices, initiated by MDHB EOC and resourced by MDHB, in accordance with Ministry of Health guidelines and an MOU between MDHB and PHO.

3. Community Based Assessment Centres (CBACs) – established in conjunction with MDHB / PHO

The CBAC plan is based on a pandemic event where the numbers of people presenting to GP practices has proved too numerous to be managed within GP practices despite the presence of flu clinics. A CBAC is then initiated to deal with increasing numbers of patients and relieve GP practices of excessive patient load.

It may be necessary to have more than one CBAC operating in this GP practice model within the city and will be the model of choice within the rural areas.

This CBAC will be located in a GP practice that can continue business as usual safely in another part of the building.

Note:

1. Telephone Triage is an essential feature of any pandemic response. It is anticipated that each facility, whether general practice, flu clinic, or CBAC - telephone triage will be included as an on-site activity, resourced with a registered nurse.
2. Virtual consultation, utilising both telephony and video conferencing is becoming increasingly common within the district. This will be an essential feature of any pandemic response.

Human Resources (HR)

Projected pandemic figures suggest that a CBAC will require:

- 3 doctors during the full capacity hours.
- 3 registered nurses for triage, information gathering, preparation of scripts and dispensing medication.
- Staff will be resourced from general practices depending on workforce availability.
- Staff will be identified in consultation with the Central PHO and practices, initiated by MDHB EOC and resourced by MDHB, in accordance with Ministry of Health guidelines and an MOU between MDHB and PHO.

Rural Flu Clinics and CBACs

Due to lower population numbers in rural areas it is unlikely that a formal CBAC structure will be required. Local solutions will be considered and activated by the MDHB EOC in accordance with needs.

Given the small pool of medical and nursing staff in the rural areas, back-up provision of staff from the urban centre will be needed, especially when the GP practice model of CBAC is operating.

Staff will be identified by the PHO in consultation with the practices, initiated by MDHB EOC and resourced by MDHB, in accordance with Ministry of Health guidelines and an MOU between MDHB and CPHO.

CBACs and Flu Clinics in Urban and Rural Areas

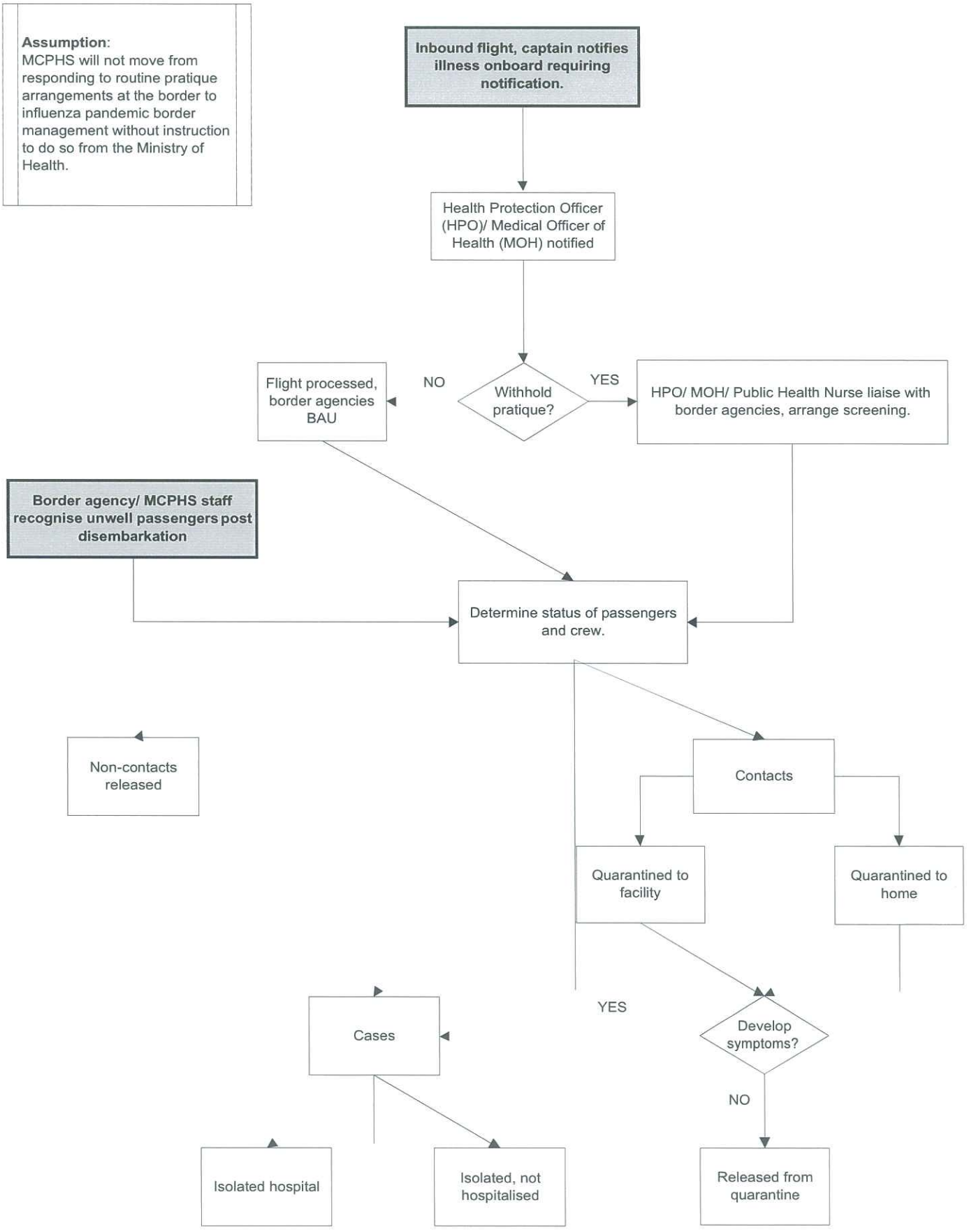
Other resources:

- All resources will be supplied by the MDHB, apart from those already available on site, such as examination tables and ICT equipment.
- All CBACs to be supplied with resources from the MDHB within a reasonable time frame, with consideration for travel time included. The CBAC will be activated and resourced through the MDHB EOC.
- Funding of staffing for CBACs and Flu clinics is from the MDHB as per signed MOU between MDHB and CPHO.
- All services will be free to the community.

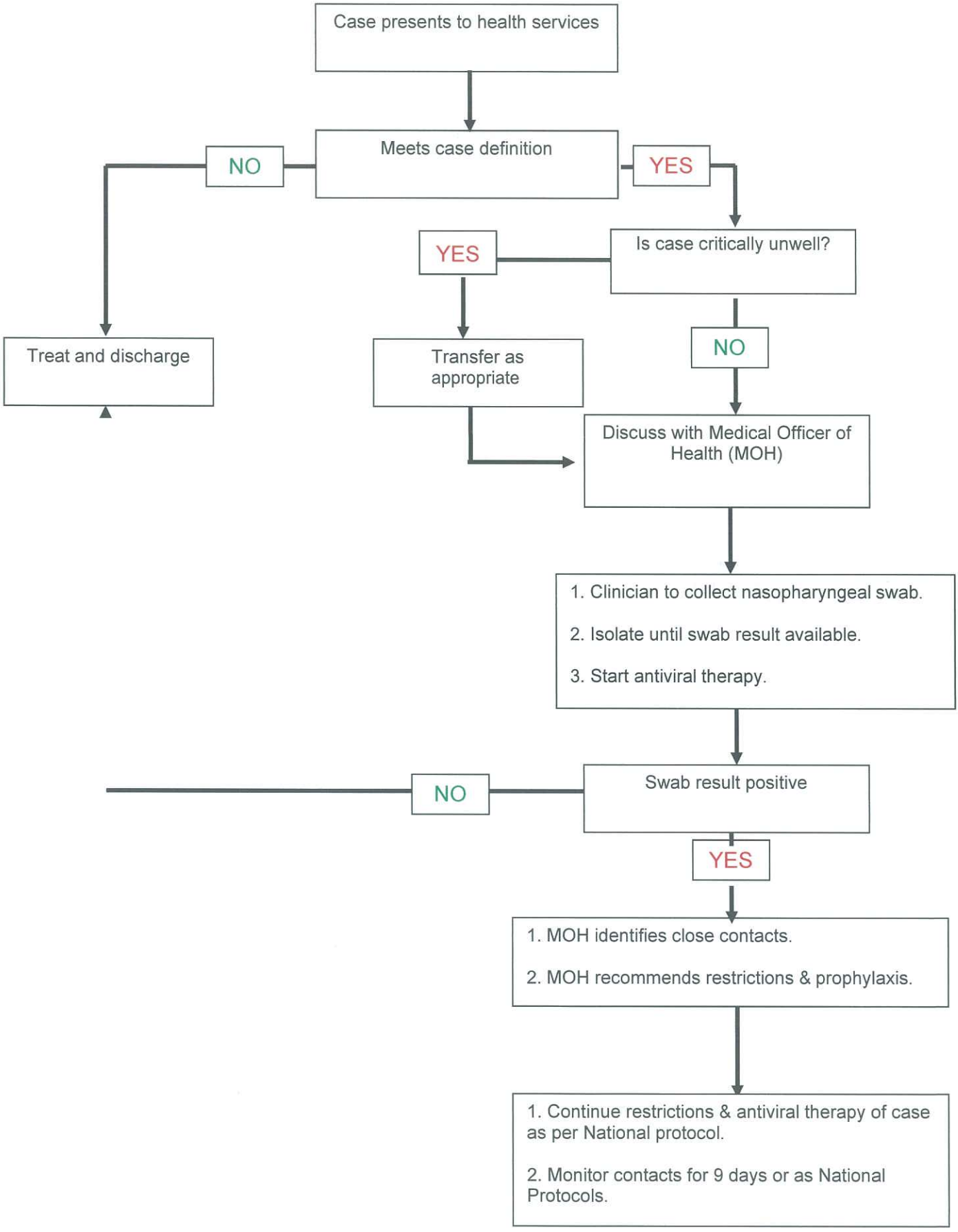
9. Likely Clinical Pathways

Following are pathways for the management of cases in the different pandemic phases. Appendix 2 includes more detailed actions in each phase.

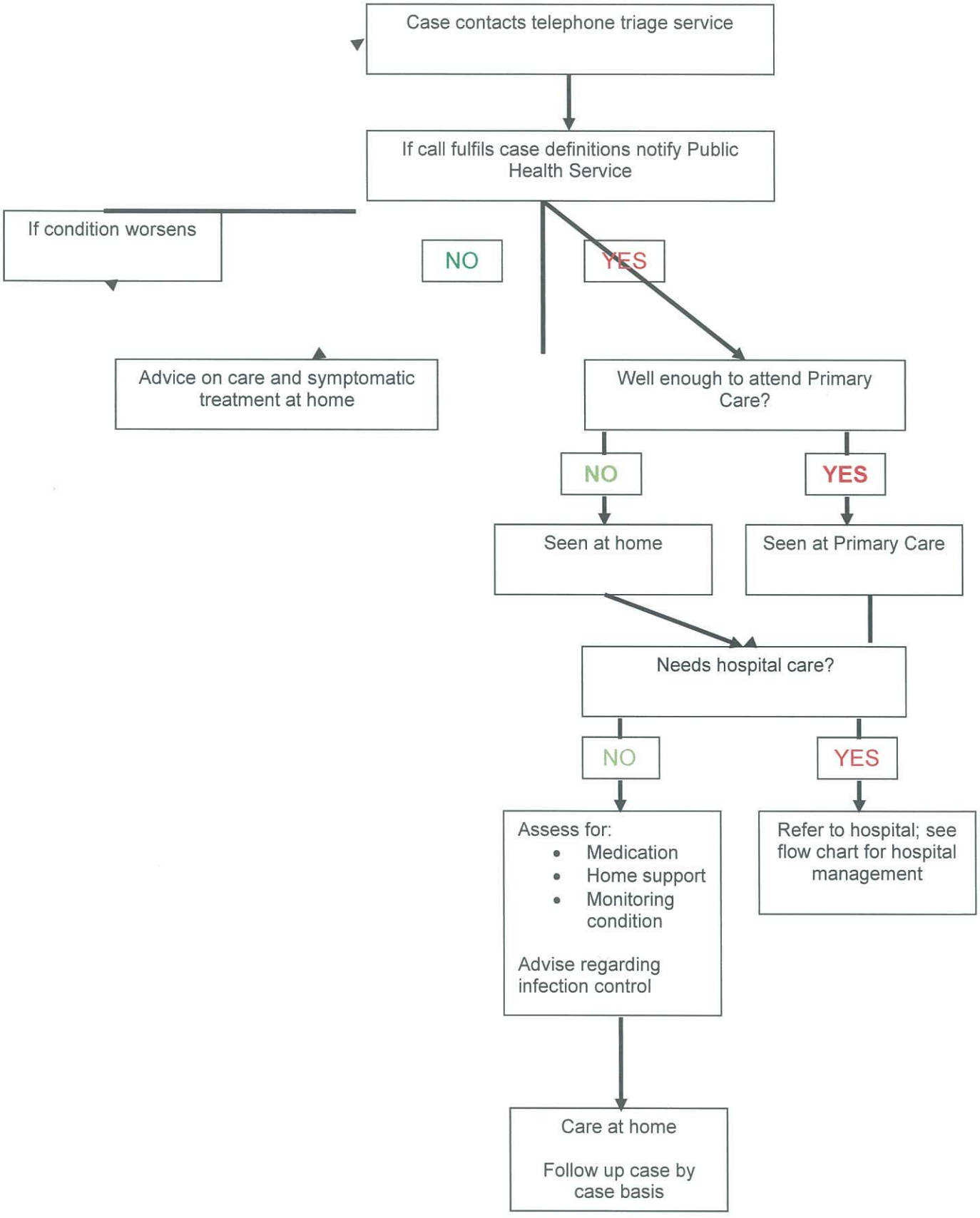
Suspect Case: "Keep it Out" Phase



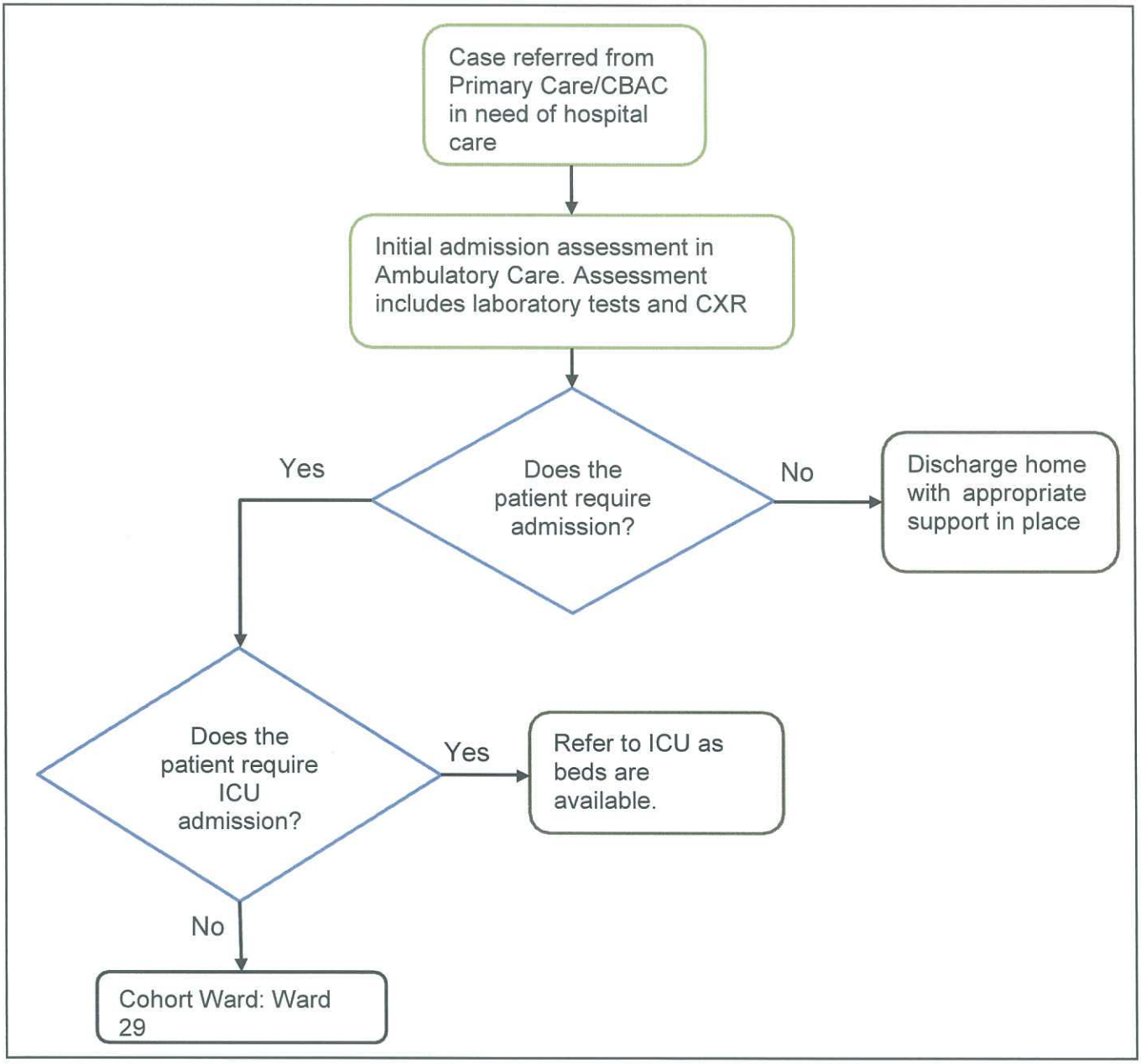
Suspect Case: "Stamp it Out" Phase



Case in Community: "Manage It" Phase



Case in Palmerston North Hospital: Pandemic Phase



10. Specific Action Plans

Response to Notification of a Suspect Case of Human non-seasonal Influenza Infection

Human non-seasonal influenza infection is a notifiable disease which must be notified to the Medical Officer of Health. A specific case definition will be developed nationally and is likely to be specific for the pandemic strain. If a national case definition does not exist at the time of presentation of a possible case, a case definition will be developed as a matter of urgency.

Possible Case Identified via Local Health Services

The first case in New Zealand will be from an international traveller. This person is most likely to enter the country at Auckland, or perhaps Christchurch or Wellington, but could have travelled by the time symptoms develop.

The first possible cases presenting to the health services in this area will be either:

- an international traveller infected overseas
- a subsequent case resulting from person-to-person spread in New Zealand
- not a true case (i.e. something else)

In the early days of the "stamp it out" phase it is likely that many if not most of the possible cases presenting to the health services will not be non-seasonal influenza infection. Our response will need to exclude such cases rapidly, while still having infection control procedures in place that are adequate to deal with a true case.

Case Presentation & Assessment

A person with symptoms is likely to contact the health services. Public information will stress the importance of phone contact as the first line of communication. This avoids the risk of spreading infection among patients and staff at a general practice or a hospital.

Initial assessment, in person or by phone, will establish if the person meets the case definition for a possible case. If so the case will be notified to the Medical Officer of Health, and management can be discussed. If the possible case is being assessed in person, he or she should be wearing an N95 mask, and the health professional should have some form of standard surgical mask.

A viral swab must be taken by a trained person at an appropriate place. The possible case can be taken there by private transport. If accompanied the possible case should have an N95 mask, and others should have some form of standard surgical mask.

The viral swab will be transported to Canterbury Health Laboratories from Medlab Central at 4pm each weekday and will be routinely tested the next working day. Note the potential for the laboratory to be overwhelmed with specimens and therefore a possible delay in results. Meanwhile the person should be isolated. This can be done at a negative pressure room in the emergency department within Palmerston North Hospital. In some situations it may be possible to isolate the person at their own home. If at home the person will be monitored by public health staff. Treatment with Tamiflu will be started in line with national protocol.

If specialist advice is that laboratory tests exclude non seasonal influenza, the person can be sent home if well enough, and treatment with Tamiflu can be stopped. If non seasonal influenza infection is confirmed the person will need to be in isolation for the recommended length of time (which will depend on the observed transmission characteristics of the human-to-human virus).

This procedure applies to the "stamp it out" phase of the pandemic. In the "manage it" phase there will be little point in seeking laboratory confirmation of what could be a large number of cases.

Management of Contacts

The Medical Officer of Health will categorise the contacts as family/household contacts, close social contacts or other contacts. Actions taken are summarised as:

Level of contact	Restriction	Tamiflu	Other actions
Family/household	Consider, especially if in contact for more than 24 hours of possible infectious	If meet criteria	Record contact details Give written advice about symptoms and how to contact health services by phone if symptoms develop Give phone contact for public health
Close social	Unlikely	If meet criteria	
Other	No	No	

The possible case is considered infectious from when symptoms develop. The likely incubation period is 1-2 days.

If specialist advice is that the viral swab results exclude or confirm non seasonal influenza infection, this information will be forwarded to the contacts by the PHS up to but not including the "manage it" phase.

The above protocol will be reviewed in light of national guidelines which will be developed.

Quarantine arrangements are detailed in *Appendix 3.*

Use of Antivirals- National Pandemic Stock

The Ministry of Health has a national stock of oseltamivir (presently Tamiflu) and zanamivir (presently Relenza) which will be available on prescription through community pharmacies.

National Pandemic Stock - Medication is stored by MidCentral DHB Hospital Pharmacy. The MDHB pandemic stock is expected to be distributed to community pharmacies who agree to dispense it, to replenish pharmacy stocks as required, and to record the number of doses distributed to each pharmacy.

Tamiflu is the first line antiviral treatment. Relenza is used where Tamifllu is not tolerated, eg. due to vomiting or diarrhoea, or in renal failure.

Authorised prescribers wishing to prescribe antiviral medication outside of guidelines will not be able to be provided from the national reserve supply, but instead from commercial supplies at the pharmacy. The prescriber should clearly mark the prescription *"not for national reserve supply".*

Clinical judgement will determine antiviral treatment. It should especially be considered:

- Early for patients with influenza who are at higher risk of severe outcomes, including pregnant women or recently pregnant women (see later), people with underlying medical conditions, very young children (under 5), and people with morbid obesity; or
- For patients with more severe influenza or whose condition begins to deteriorate, including all hospitalised cases.

Adults in the community should begin antiviral treatment within 48 hours of the onset of symptoms, or after discussion with an infectious disease, respiratory or general physician.

Hospitalised cases - above policy may be varied on a case-by-case basis.

Children aged five years or less, treatment can be initiated up to five days from the onset of symptoms.

Post-exposure prophylaxis is not generally recommended, but is to be considered for:

- Pregnant women;
- Those at high risk of severe illness;
- Health worker with close contact with case which involves failure of infection control procedures;
- Cluster control in high-risk settings, as recommended by MOH.

A post-exposure prophylaxis course can be commenced any time up to seven days from last potential exposure. The Ministry of Health does not recommend the routine use of antivirals for pre-exposure prophylaxis. National reserve antivirals are not available for pre-exposure prophylaxis.

Datasheets with information about dosage and formulations are available at:

- http://www.medsafe.govt.nz/profs/datasheet/t/Tamiflucapsusp.pdf
- http://www.medsafe.govt.nz/profs/datasheet/r/relenzarotadisk.htm

Security considerations related to the delivery of antivirals are included in *Appendix 4.*

Diagnostic Laboratory Testing

Testing for infection will be a high priority during the "keep it out" and "stamp it out" phase of the pandemic. It is likely that during this phase many of the suspect cases will in fact not be cases. It is important that test results are available quickly to confirm true cases, and to avoid restrictions and concerns generated by false alarms. Once the pandemic is established it is not expected that diagnostic testing will be necessary.
National protocols will be updated on the Ministry of Health website:

http://www.health.govt.nz/our-work/emergency-management/pandemic-planning-and-response.

Diagnostic Tests

The definition of a confirmed case will be developed nationally.

Definitive tests will be done outside Palmerston North. The reference laboratory is likely to have a test result within 24 hours of receiving the specimen. The best specimen is a nasopharyngeal swab.

The hospital laboratory will ensure an adequate supply of pernasal swabs and viral transport medium both for the hospital and for general practice.

Nasopharyngeal swab

Staff performing the procedure must be appropriately trained, and must wear protective clothing – gown, N95 mask, goggles. At Palmerston North Hospital it is anticipated the procedure will be done in an appropriate room at the emergency department.

Many nasopharyngeal swabs are expected to be done in general practice.

Personal Protection Equipment (PPE) - National Pandemic Stock

For guidance on appropriate use of Personal Protective Equipment (PPE) please refer:

- MDHB Infection Prevention and Control Manual
- New Zealand Influenza Pandemic Plan: A framework for action
- CBAC Guidelines

Guidelines stress the importance of hand washing, respiratory hygiene (careful coughing and sneezing) and social distancing, as well as the use of personal protection equipment.

The Ministry of Health website will contain updated information for access on a national level using the following link:

http://www.health.govt.nz/our-work/emergency-management/pandemic-planning-and-response

National Pandemic Stock – Supplies are stored by the MDHB as purchased with the funding provided by the Ministry of Health, with stock required to be rotated within expiry dates. This list is not exhaustive, but identifies key equipment.

Item	Pandemic Reserve held locally
N95 masks	44,400
Surgical masks	90,000
Gloves	58,000 pairs
Gowns – Polythene iso	3,000
Gowns – Yellow Laminated iso	5,900
Aprons	2,500
Goggle frames	1,000
Lenses	3,750
Syringes	49880 + 38 000
Needles	10 000
IV Fluid Sodium Chloride	1,050
IV Fluid Glucose	120
Hand rub – Microshield	276
Burette Solution Set	288
Giving Set IV	120
Cannula (various)	5, 700 + 3,740

MDHB is expected to provide appropriate PPE for clinical and non-clinical staff.

Plans to distribute these supplies to the region will be approved by the MDHB EOC Incident Controller.

Community Measures to Reduce Social Interaction

During the "stamp it out" phase there will be isolation of cases, and some quarantine or symptom monitoring of contacts. During the "manage it" phase, the focus will shift to delaying spread of infection through population measures. The most important measure will be provision of information, especially regarding early recognition of symptoms and the need to stay at home when symptoms start. Also important will be messages about hand and respiratory hygiene, and the appropriate use of masks in high risk settings.

As the pandemic develops the public can be advised to defer non-essential travel, and measures such as school closures and avoiding mass gatherings can be considered.

Legal Background

The following statutes are of relevance in enforcing measures aimed at reducing social interaction. The list is not exhaustive.

Health Act 1956.

Sections 70 and *71* give additional powers to the Medical Officer of Health if authorised to do so by the Minister or if a state of emergency has been declared under the Civil Defence Emergency Management Act 2002 or while an epidemic notice is in force. In particular *s.70* states that the Medical Officer of Health may (paraphrased):

- Require medical examination of individuals.
- Forbid movement of persons or vehicles in and out of the health district.
- Require premises to be closed, or impose infection control measures if remain open.
- Forbid congregation of people, or impose infection control measure upon such congregation.

Section 71 allows for requisition of land, buildings and vehicles, if these are needed for accommodation, treatment and transport of patients.

Section 71A makes it clear that the Police can assist the Medical Officer of Health to ensure compliance with these special powers. Some other statutory powers can be used when an epidemic management notice, specific to those powers, has been issued by the Prime Minister. For the Medical Officer of Health this includes the power to re-direct an aircraft if this is needed for infectious disease control.

Legislation also allows for various other measures where these are activated by the signing, by the Prime Minister, of an epidemic notice or an epidemic management notice.

Health (Protection) Amendment Act 2016

Key sections are listed below:

Section 92I Medical Officer of Health may give directions to individual posing public health risk
Section 92J Medical Officer of Health may give directions to contacts of individual posing public health risk
Section 92K Direction for Medical examination
Section 92L Direction to close educational institutions.
Section 92Z District Court may make public health order
Section 92ZF Medical Officer of Health may make urgent public health order

Civil Defence Emergency Management Act 2002

This gives powers to a Civil Defence Emergency Management Group, while a state of emergency is in force in its area (see s.85). The powers include: *"prohibit or regulate land, air, and water traffic within the area or district to the extent necessary to conduct civil defence emergency management".*

There is also a provision for closing roads and public places (s.88): *"If a state of emergency is in force, a Controller or a member of the police, or any person acting under the authority of a Controller or member of the police, or any person so authorised in a relevant civil defence emergency management plan, may, in order to prevent or limit the extent of the emergency, totally or partially prohibit or restrict public access, with or without vehicles, to any road or public place within the area or district in respect of which the state of emergency is in force".*

Education Act 1989

This includes the statement (s.65E) that *"a Board may at any time, because of epidemic, flood, fire, or other emergency, close a school it administers."*

General Remarks

During an emergency, the response will be coordinated by the DHB EOC. The Medical Officer of Health will be a member of the Action Committee advising the Response Coordinator, and any actions taken pursuant to ss70&71 of the Health Act will be taken with the agreement of the Response Coordinator.

It is likely that most actions taken to reduce social interaction will be done voluntarily as a result of education of the public. Other measures, such as school closures and restriction of movement, will involve close cooperation between the Emergency Response Team and agencies such as the Ministry of Education and the Police.

Detailed consideration of what to close and what to restrict will be according to national guidelines, and relate to transmission characteristics of an identified pandemic pathogen.

Delivery of Vaccine

Ministry of Health guidelines will advise using local expertise through the MDHB EOC if a mass vaccination programme is required. General Practices are well experienced in delivery of seasonal influenza vaccine and will be the likely areas of delivery of a pandemic influenza vaccine. Public Health staff may be involved, especially if school based delivery is required. Secondary care may be involved in delivery to DHB staff.

More detail about the vaccination Activation Plan is provided in Appendix 6.

Care of the Deceased

The standard planning model for a severe pandemic assumes about 38,000 deaths over an eight-week pandemic wave, with approximately 10,000 in the peak week. For context, New Zealand averages about 599 deaths from any cause per week in normal times. Clearly, this will have an impact on normal services for dealing with the deceased. Normal DHB emergency planning processes include provision for managing larger than normal numbers of deceased.

Under section 46AA of the Burial and Cremation Act 1964 no one may dispose of a body without a doctor's certificate or coroner's authorisation. If people are instructed to stay at home during a pandemic, some may die from influenza without having seen a doctor. Although a natural consequence of illness, such deaths must be reported to the coroner under section 13(1) of the Coroners Act 2006.

Local funeral director workload

If the pandemic period is prolonged for over eight weeks or if the pandemic is severe local funeral directors will become overwhelmed. Capacity and outcomes can be improved with attention to the following actions:

1. Efficient signing of identification certificates;
2. Efficient signing of medical certificates of death;
3. Selection of burial rather than cremation (same-day burial is possible);
4. Use of body bags or pouches for 24-48 hours storage without refrigeration.

Limitations[2]

Funeral directors will face significant demand. Funeral directors themselves may be suffering significant morbidity and mortality, and consequent resource difficulties. It should be remembered that one way in which they are compromised could be in terms of their capacity to provide grief therapy and work as fully with families and friends as they normally do.

Refrigeration and storage

If bodies need to be stored, because they cannot be prepared for burial or cremation in a timely manner or because the remains are unidentified, the following practices should be followed until appropriate identification and/or disposal can take place:

Long-term storage (five or more days)

To preserve bodies indefinitely, they should be stored in refrigerated containers that can maintain temperatures below -24°C. Care should be taken to avoid thawing and re-freezing remains.

Short-term storage (less than five days)

Un-embalmed bodies may be stored in refrigerators of temperatures above 0°C for up to five days before muscle and bone is likely to decompose.

Funeral Directors – Manawatu Region			
Name	Location	Physical Address	Contact No
Cotton Robert J & Sons Ltd	Palmerston North	Terracehaven 697 Main Street	06 355 2529
I C Mark Ltd	Levin	547 Quinn Street	06 368 8108
	Otaki	197 Mill Road	
Harvey - Blowler	Levin	284 Oxford Street	06 368 2954
	Otaki	14 Rangatira Street	0800 332 273
Beauchamp	Feilding	280 Kimbolton Road	06 323 3700
	Marton	18 Morris Street	06 327 7029
Anderson	Foxton	Main Street	06 363 7918
Rose City	Palmerston North	190 Ruahine Street	06 354 8888

[2] New Zealand Influenza Pandemic Plan: A framework for action (Page 137)

A.A.A. Colenso – Pehi Ltd	Palmerston North	PO Box4596	06 356 4090
Lychway	Palmerston North	5 Roy Street	06 357 8143
Monarch	Pahiatua	21 Dawson Street	06 376 6662
Tararua Funeral Services Ltd	Dannevirke	51 Denmark	06 374 7785
Chester Burt	Pahiatua	18 Main Street	06 376 8268

Table 3: Regional funeral directors

Communication

All public, external and internal communication will be the responsibility of the MDHB EOC Incident Management Team, which will include the MDHB Communications Officer in the role of Public Information Manager (PIM).

Public information will be disseminated in conjunction with a Public Health representative, reference to the Ministry of Health website and liaison with regional health coordination centre and later, a national health coordination centre (NHCC) via the Ministry of Health will provide guidance on information and resources to disseminate and distribute.

A communications overview is found in *Appendix 7*.

This plan has been reviewed and revised by the three organisations represented above, being Central Primary Health Organisation, MidCentral Health - Public Health and the MidCentral District Health Board. This Pandemic Plan (2019 – 2022) will provide a framework for a coordinated and integrated health sector response in the MDHB borders, in the event of a pandemic.

This plan is approved and endorsed as follows:

Signed:

Dated: 28 March 2019

Medical Officer of Health
MidCentral Health – Public Health

Signed: .....

Dated: 30.04.2019

Kathryn Cook
Chief Executive Officer
MidCentral District Health Board

Signed:

Dated: 29 March 2019

Chiquita Hansen
Chief Executive Officer
Central Primary Health Organisation

All Agency Pandemic Responsibility Matrix

Appendix 1

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
Phase 1 – No new influenza virus subtypes have been detected in humans. Virus subtype that has caused human infection may be present in animals, the risk of human infection is considered to be low.	**Scenario 1.1** **No animal or human cases in New Zealand**	• Update DHB emergency / pandemic plan including developing Communications Plans at Alert Code White. • Plan for Community Based Assessment Centres (CBAC). • DHB liaison with CDEMG and other agencies for pandemic planning. • Chair CDEMG Pandemic Planning Group. • Identify staff for Incident Management Team positions. • Identify Incident Management Team training needs and arrange training as required. • Notify clinical and public health staff of case definitions, clinical advice and control measures. • Provide consistency between planning of MidCentral District Health Board and Wanganui District Health Board. • Communicate and educate partner agencies on roles of CBAC's. • Identify Health Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	**All Agencies** • Assist DHB in developing joint Public Communications Plan and Operational Communications Plan and activation of plan at Alert Code White. • Conduct ongoing planning for EOC site including communications links. • Interagency cooperation for pandemic planning. • Concurrence on expectations / responsibilities between agencies. • Conduct exercises (led by DHB). • Complete Business Continuity Plans. **CDEMG** • Review CDEMG Pandemic Response Plan. • CDEM liaison with DHB for DHB / CBAC planning. • Provide consistency in TLA involvement in DHB / CBAC planning if required. • Participate in CDEM Pandemic Planning Group. • Assist in training for DHB Incident Management Team. • Assist in exercise of response plans. **Police** • Draft Police pandemic plan – Business Continuity Plan. • Participate in CDEMG Planning Group. • Confirm Police involvement for existing DHB sites including planning for an urgent response. • Confirm Police involvement on initial establishment of CBAC. • Participate in exercise of response plans. **Fire Service** • Draft Fire Service pandemic plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group.
Phase 2 – No new influenza virus subtypes have been detected in humans. However a circulating animal influenza virus subtype poses a risk of human disease.	**Scenario 2.2 - No new influenza virus subtypes have been detected in humans. However infected animals in New Zealand pose a substantial risk of human disease in New Zealand.**	• Update DHB emergency / pandemic plan. • Plan for CBAC's. • Enhance laboratory diagnostic capacity for novel strain. • DHB liaison with CDEMG and other agencies for pandemic planning. • Chair CDEMG Pandemic Planning Group. • Conduct exercise of response plans. • Identify DHB staff for Incident Management Team positions and training gaps. • Notify clinical and public health staff of case definitions, clinical advice and control measures. • Train staff in emergency management once	

		training gaps are identified. • Provide consistency between planning of MidCentral District Health Board and Wanganui District Health Board. • Communicate and educate partner agencies on roles of CBAC's. • Identify Health Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	• Confirm fire procedures for DHB existing sites. • Assist in identifying fire equipment requirements and procedures for CBAC sites. • Assist in education and training as required. • Participate in exercise of response plans. **St John** • Draft St John pandemic plan – Business Continuity Plan. • Identify services that can be provided to health services in pandemic. • Participate in CDEMG Pandemic Planning Group. • Participate in exercise of response plans. • Support DHB / CBAC planning when national consistency for St John's resources are confirmed. **TLA's** • Draft local authority Pandemic Response Plan. • Complete Business Continuity Planning for all TA functions. • Draft plans for community logistics. • Participate in Pandemic Planning Group. • Support DHB / CBAC planning at district level. • Investigate options for Liaison / Operations Officers for CBAC sites in DHB / CBAC planning. • Assist DHB in identifying CBAC sites and communications and logistical requirements. • Participate in exercise of response plans. **Lifelines** • Facilitate all agencies to complete Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Participate in exercise of response plans.
Phase 3 – Human infection with a new subtype, but no human to human spread, or at most rare instances of spread to a close contact.	**Scenario 3.1 – No animal or human cases in New Zealand.**	• Review plans for managing a pandemic including quarantine planning. • Review plans for rapid immunisation campaign. • Plan for CBAC's. • Increased vigilance and surveillance especially with ports of entry into New Zealand. • Public Health services work with airports of first arrival to ensure all reports of illness are reported. • DHB liaison with CDEMG and other agencies for ongoing pandemic planning. • Chair CDEMG Pandemic Planning Group. • Conduct exercise of response plans. • Identify DHB staff for Incident Management Team positions and training gaps. • Notify clinical and public health staff of case definitions, clinical advice and control measures. • Train staff in emergency management once training gaps are identified. • Provide consistency between planning of MidCentral District Health Board and Wanganui District Health Board. • Communicate and educate partner agencies on roles of CBAC's. • Identify Health Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	
WHO Phase	**NZ Scenario**	**DHB Responsibilities**	**CDEMG Agencies**

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
	Scenario 3.2 – First case identified in New Zealand animal. No evidence of human cases.	• Review plans for managing a pandemic including quarantine planning. • Review plans for rapid immunisation campaign. • Plan for CBAC's. • Increased vigilance and surveillance especially with ports of entry into New Zealand. • Primary care providers on enhanced alert for detection and notification of first zoonotic cases. • DHB liaison with CDEMG and other agencies for ongoing pandemic planning. • Chair CDEMG Pandemic Planning Group. • Conduct exercise of response plans. • Identify DHB staff for Incident Management Team positions and training gaps. • Train staff in emergency management once training gaps are identified. • Provide consistency between planning of MidCentral District Health Board and Wanganui District Health Board. • Communicate and educate partner agencies on roles of CBAC's. • Identify Health Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	**Welfare Agencies** • Facilitate all agencies to complete Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Participate in exercise of response plans.

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
Phase 3 – Human infection with a subtype, but no human to human spread, or at most rare instances of spread to a close contact.	**Scenario 3.3 – First human cases in New Zealand (confirmed by lab test) relating to recent arrival. No evidence of human cases. No animal cases in New Zealand.**	• Change Alert Status to Yellow. • Advise all agencies of change in Alert Status. • Activate DHB pandemic plan. • Manage DHB clinical and public health response. • Prepare to activate regional coordination teams. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • Isolate cases and treat. • Increase security at DHB sites. • Place DHB staff on alert. • Place CBAC staff on alert in coordination with Liaison / Operations Officers. • Provide leadership for Public Information and media releases. • Convene meeting of Pandemic Planning Group and CEG. • Ensure direct communications link between MidCentral District Health Board and Wanganui District Health Board for consistency of health services in the region. • Prepare Health Coordinator for CDEMG.	**All Agencies** • Assist DHB in joint Public Communications Plan and Operational Communications Plan at Alert Code Yellow. • Confirmation of interagency cooperation and plans for pandemic planning. • Confirmation of responsibilities between agencies. • Prepare for CIMS activation and establishment of EOC. • Activate communications networks (CDEMG / Health). • Activate internal agency response plans. • Review and prepare to implement recovery plans. **CDEMG** • Confirm and prepare to activate CDEMG pandemic plan. • Participate in CDEMG Pandemic Planning Group. • Provide consistency in TLA involvement in DHB / CBAC plans if required. • Be prepared to establish EOC in support of DHB. **Police** • Confirm and prepare to activate Police Pandemic Plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Monitor requirement for increased Police presence at existing DHB sites. • Prepare to provide support to any CBAC on establishment if required. • General police control of law and order. **Fire Service** • Confirm and prpepare to activate Fire Service Pandemic Plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Fire Safety inspections of all DHB facilities. • Confirm CBAC fire safety.
	Scenario 3.4 – First human cases in New Zealand (confirmed by lab test) from community surveillance (within 1 – 2 weeks of swab taken). No evidence of consistent human to human transmission. No animal cases in New Zealand.	• Change Alert Status to Yellow. • Advise all agencies of change in Alert Status. • Activate DHB pandemic plan. • Manage DHB clinical and public health response. • Prepare to activate regional coordination teams. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • Isolate cases and treat. • Increase security at DHB sites. • Place DHB staff on alert. • Place CBAC staff on alert in coordination with Liaison / Operations Officers. • Provide leadership for Public Information and media releases. • Convene meeting of Pandemic Planning Group and CEG. • Ensure direct communications link between	

		MidCentral District Health Board and Wanganui District Health Board for consistency of health services in the region. • Prepare Health Coordinator for CDEMG. • Review and prepare to implement recovery plans.	**St John** • Confirm and prepare to activate Pandemic Plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Support DHB / CBAC site activation on occurrence if required and as confirmed in planning. **TLA's** • Confirm and prepare to activate Local Authority Pandemic Plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Support DHB / CBAC site activation on occurrence. • Activation of Liaison / Operations Officer if available and depending on TLA plans. • Place any identified TLA staff in support of CBAC alert. • Prepare to assist in CBAC communications and logistical requirements. • Lifelines. • Confirm and prepare to activate Lifelines Pandemic Plan – Business Continuity Plan. • Participate in CDEMG Pandemic Planning Group. • Welfare Agencies. • Confirm and prepare to activate Welfare Agencies Pandemic Plan – Business Continuity Plan.

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
Phase 4 – Human to humantransmission. Small clusters with limited human to human transmission but spread highly localised. Suggested that virus is not well adapted to humans.	Scenario 4.1 No animal or human cases in New Zealand.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • PCR negative – treat as appropriate. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Isolate cases and treat. • Track all staff contacts and review health status. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Provide Heath Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	**All Agencies** • Assist DHB in joint Public Communications Plan and Operational Communications Plan at Alert Code Red. • Activation of all pandemic plans. • Ensure continuation of interagency integration of pandemic plans. • Activation of CIMS structures and EOC. • Continue communications networks (CDEMG / Health). • Endure Recovery phase of agency plans have final review. **CDEMG** • Activate CDEM Pandemic Response Plan. • Establish Group EOC in support of DHB. • Provide advisory staff to support DHB. **Police** • Activate Police Pandemic Plan – Business Continuity Plan. • Participate in EOC – provide Liaison Officer. • Police involvement in traffic control around existing DHB sites if required – • Police enhancement of security at initial CBAC sites if required - potential for requirements of urgent response. • General Police control of law and order. **Fire Service** • Activate Fire Service Pandemic Plan – Business Continuity Plan. • Participate in EOC – provide Liaison Officer. • Response as required.
Phase 5 – Human to human transmission. Larger clusters but human to human spread is localised. Suggested that virus is becoming better adapted to humans, but not yet fully transmissible (substantial pandemic risk).	Scenario 5.1 – No animal or human cases in New Zealnd.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Isolate cases and treat. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Provide Heath Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	

	Sceanrio 5.2 – Largeclusters of multiple clusters of cases in New Zealand not relating to animals.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • Recall DHB staff. • Commence immunisation once available. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Activate additional mortuary facilities. • Surveillance of unaffected areas. • Isolate cases and treat. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Vaccinate priority populations (if possible). • Provide leadership for Public Information and media releases.	St John • Activate Pandemic Plan – Business Continuity Plan. • Participate in EOC – provide Liaison Officer. • Support DHB / CBAC services as confirmed in planning. TLA's • Activate Local Authority Pandemic Plan – Business Continuity Plan. • Provide support for community logisitics. • Support DHB in CBAC site activation on occurrence. • TLA staff in support in CBAC if available and depending on TLA plans. • Provide coordination at CBAC sites depending on TLA plans. • Assist in establishment of road blocks in coordination with Police / Medical Officer of Health. • Set up and activated Welfare Centres. • Lifelines. • Activate Lifelines Pandemic Plan – Business Continuity Plan. • Participate in EOC – provide Liaison Officer. • Activate Welfare Agencies Pandemic Plan – Busienss Continuity Plan.
WHO Phase	**NZ Scenario**	**DHB Responsibilities**	**CDEMG Agencies**

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
Phase 6 – Increased and substantial transmission in general population.	Scenario 6.1 No animal or human cases in New Zealand.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • PCR negative – treat as appropriate. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Isolate cases and treat. • Track all staff contacts and review health status. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Priority of CBAC's antiviral treatment. • Activation of Mass Casualty Plan. • Provide Heath Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	
	Scenario 6.2 Clusters of cases in New Zealand not relating to birds.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Activation of CBAC's. • Commence immunisation once available. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Activate additional mortuary facilities. • Surveillance of unaffected areas. • Isolate cases and treat. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Provide Heath Coordinator for CDEMG.	

		• Provide leadership for Public Information and media releases.	
	Scenario 6.3 **Increased and substantial transmission in general population.**	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Activation of CBAC's and collection of agreed data. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Isolate cases and treat. • Track all staff contacts and review health status. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Commence scale down CBAC's as required. • Provide Heath Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	

WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies
	Scenario 6.4 Wave decreasing. Detection of next wave.	• Advise all agencies of change in Alert Level to Red. • Activate DHB pandemic plan. • Activate workforce contingency plans. • Activate regional coordination team. • Prepare for activation of CBAC's. • Inform agencies of pending CBAC site activation. • Recall DHB staff. • Recall CBAC staff. • Introduce enhanced staff surveillance and sickness reporting and follow up any Influenza – like – Illness. • Isolate cases and treat. • Track all staff contacts and review health status. • Increase security at DHB sites. • Provide Incident Controller for DHB. • Commence scale down CBAC's as required. • Provide Heath Coordinator for CDEMG. • Provide leadership for Public Information and media releases.	
WHO Phase	NZ Scenario	DHB Responsibilities	CDEMG Agencies

Post Pandemic Period – Pandemic over.	**Pandemic over and / or population protected by vaccine.**	• Advise all agencies of change in Alert Status to Green. • De-activate regional coordination teams. • De-activation of CBAC's. • Manage return to normal health services. • Recovery, debriefing and lessons learnt. • Provide leadership for Public Information and media release.	**All Agencies** • Assist DHB in joint Public Communications Plan and Operational Communications Plan at Alert Code Green. • Activation of recovery phase of all pandemic plans. • De-activation of CIMS structure and EOC. • Continue communications networks (CDEMG / Health). • Resume normal functions and Business Continuity Plans. • Participate in CEMG agency debriefing. **CDEMG** • Activate recovery phase of pandemic plan. • Provide recovery advisory staff to support DHB. **Police** • Activate recovery phase of pandemic plan. • Preparation of Police short notice response to law and order issues at existing DHB sites or CBAC sites. • General police control of law and order.
			Fire Service • Activate recovery phase of pandemic plan. • Response as required.
			St John • Activate recovery phase of pandemic plan. • Support DHB / CBAC site deactivation. • Support DHB / CBAC services. **TLA's** • Activate recovery phase of pandemic plan. • Provide coordination on deactivation of CBAC sites. • Assist in physical deactivation of CBAC's including move of equipment. **Lifelines** • Activate recovery phase of pandemic plan. **Welfare Agencies** • Activate recovery phase of pandemic plan. • Deactivate Welfare Centres.

DHB Actions by pandemic phase

Appendix 2

DHB Actions
No Alerts issued. **(Reduction Phase)**
Usual planning activities ➢ Develop and implement action plans for the organisation or sector to address lessons learned in the H1N1 pandemic. ➢ Incorporate pandemic response issues into normal emergency planning and business continuity plans ➢ Maintain sector-specific guidelines and protocols for planning, response and communications. ➢ Establish, revise and exercise pandemic plans within sectors and agencies ➢ Maintain a communication plan and resources for the organisation. ➢ Train staff and exercise agency and intersectoral plans. ➢ Maintain stockpiles of critical pandemic supplies (e.g., antivirals, antibiotics and personal protective equipment). ➢ Maintain plans and policies for the use of vaccines. ➢ Plan laboratory services. ➢ Plan CBAC options with primary and provider arm health and other community support organisations. ➢ Plan for and train staff to enable a rapid increase in ICU capacity. ➢ Plan local quarantine facilities and social distancing measures.
(No Human cases in NZ) **Code White (Information / Advisory received by DHB Single Point of Contact)** **PLAN FOR IT (Readiness Phase)**
Strengthen pandemic preparedness locally by: ➢ Preparing to implement pandemic plans at short notice should circumstances change. ➢ Briefing CEO ➢ Identify a potential Incident Controller ➢ Briefing other emergency services and partner agencies. (Civil Defence, Police, Ambulance, Laboratories, PHO's.) ➢ Reviewing communication plans and resources (e.g., addressing public information, health systems disease assessment and management tools, information for other authorities). ➢ Monitor overseas developments closely ➢ Review EOC activation (rosters, update pandemic information) ➢ Reconfirm Flu Clinic / CBAC establishment plans and agreements with interested parties. ➢ Identify an infection control advisory group and a Technical Advisory Group ➢ Review international airport and quarantine arrangements. ➢ Plan for accommodating tourists who are confirmed as having contracted influenza. ➢ Link with Midland Emergency Planning Group to ensure consistency of response. ➢ Promote the uptake of inter-pandemic influenza vaccine and personal hygiene. ➢ Consider potential need for a rapid immunization programme. ➢ Review Hospital infection control plans to ensure that they are ready for implementation. ➢ Update stakeholders of the current situation and the need to update planning and review infection control procedures.

KEEP IT OUT
(No Human Cases in NZ)

Code Yellow or Code Red

- Prepare to activate pandemic plan at short notice.
- Activate emergency management structure as required to manage the situation.
- Commence coordinated local communications in line with National Communication strategies. (GP's, Key Stakeholders, DHB staff, public and others, in particular any vulnerable group who are perceived to be at higher risk or high priority.)
- Activate Infection Control Advisory Group to the extent that the situation dictates.
- Establish DHB level link to monitor information being communicated via the National Health Computer system.
- Check personal protection and antiviral/antibiotic supplies (Ministry stockpile and DHB).
- Check systems are in place for distribution of PPE and antivirals.
- Prepare for possible release of pre-pandemic vaccine (if available under the Pre-Pandemic Vaccine Usage Policy).
- Continue briefing other emergency services and partner agencies as the situation develops.
- Contact quarantine facilities and re confirm availability according to the Memorandum of Understanding. (Arrange PHU staff training visits as necessary)
- Contact any facilities who have agreed to accommodate tourists that are influenza symptomatic and re confirm arrangements are in place.
- Contact PHO Flu Clinic/CBAC facility principals and re confirm availability according to plans.
- Review plans for DHB 0800 line.
- Confirm laboratory preparedness and arrangements for managing increased work flows.
- Introduce enhanced staff surveillance and sickness reporting – follow up of influenza like illness.
- Review recent surveillance of influenza like illness including primary care, accident and emergency departments to detect possible imported cases and secondary cases.
- Support Public Health efforts to "Keep it Out." at borders within MDHB.
- Review DHB Intensive Care Unit plans and the linkage to the National ICU plans.
- Alert DHB Human Resources to the situation and arrange for them to review their plans especially around Flu Clinic/CBAC and hospital staffing.
- Activate hospital infection control protocols.

STAMP IT OUT
(First case identified in NZ / Clusters of Cases in NZ)

Code Yellow or Code Red

- Monitor and comply with all NHCC directions and requests.
- Implement communications strategy with the Incident Controller approving all releases of information. (Pay particular attention to potentially vulnerable groups who are identified as being at higher risk)
- Ensure clinical definitions and protocols are widely disseminated to PHO, GP Practices, ED and other health facilities.
- Continually update DHB and Public Health Websites.
- Continue support of border management initiatives.
- Support Public Health initiatives to investigate and monitor cases and their contacts in quarantine and isolation.
- Commence PPE and personal hygiene refresher training regimes.
- Continue briefing other emergency services and key stakeholders.
- Ensure local ambulance services are well briefed on transport protocols.
- Track any staff contacts and report as required.
- Consider activating Flu Clinics/CBACs to support cluster control responses.
- Consider activating regional response communication links or structures.
- Distribute National situation reports and intelligence summaries. Prepare to activate DHB 0800 lines to support National networks as required.

MANAGE IT
(Increased and substantial transmission in the general population)

Code Yellow or Code Red

- Activate DHB/EOC/CIMS structure
- Implement roster system for EOC
- Advise all agencies of alert status
- Update Incident Action Plan Provide and update situation report to CEO and circulate to areas as agreed with CEO
- Liaise with CEG Regional Group
- Identify a potential Recovery Manager

- Prepare to activate Flu Clinic/CBACs.
- Monitor information from CBACs
- Monitor Influenza Like Illness (ILI) patients attending in primary care and ED.
- Monitor workforce absence.
- Follow up influenza like illness.
- Monitor laboratory capacity and prioritise services, if required.
- Monitor intensive care unit capability and capacity.
- Consider setting prioritisation criteria for the distribution and usage of critical goods and services which might be in short supply.
- Action plans as necessary for antiviral or antibiotic distribution.
- Prepare to activate local 0800 help line if required.
- Identify vulnerable groups and provide relevant and accessible information to them.
- Apply DHB human resource guidelines.
- Monitor the impact on critical hospital services; postpone electives if required, and liaise with other DHBs to make best use of available regional and national resources.
- Report to Ministry of Health on service capacity as required.
- Liaise with ambulance providers to prioritise the use of this service, if required.
- Monitor staff absence in primary care, patient presentation numbers and request they report any changes in their ability to continue to provide services.

MANAGE IT – POST PEAK (Response / Recovery Phase)
(Wave decreasing; possibility of a resurgence or new wave)
Code Yellow or Code Red

- Review actions and decisions, in particular actions relating to key decisions made in earlier phases; lift controls and programmes when feasible, noting that such programmes may need to be re-introduced quickly if there is a resurgence of the pandemic.
- Debrief staff and agencies, and collate lessons learned in order to better inform planning and future responses.
- Evaluate the effectiveness of the measures used and update plans, guidelines, protocols and algorithms accordingly.
- Collate resources and store material developed in the response for future pandemics.
- Ensure activation of recovery arrangements.
- Incident Controller and Recovery Manager to plan changeover process and exit strategies.
- Prepare to re-introduce interventions from earlier phases at short notice, if required, should there be a resurgence of the pandemic.

RECOVER FROM IT (Recovery Phase)
(Pandemic over and/or population protected by vaccine)
Code Green

- Review actions, decisions, and develop phased plans for ceasing programmes introduced in earlier phases, continuing or starting recovery-specific programmes, and returning to business as usual activities.
- Consideration of activating or standing down recovery activities as demanded by the situation.
- Deactivate, when appropriate, the emergency operations center.
- Provide all staff and providers involved in the response the opportunity to provide feedback on the response.
- Update the plan.

Quarantine facilities **Appendix 3**

Summary Public Health Service Activation Plan

MidCentral Public Health Service will be initially responsible for the management of quarantined persons and will have the ability to call on security services In the event that the number of quarantined becomes unmanageable the service will seek further assistance.

The purpose of placing a person into quarantine is to reduce the likelihood of person to person transmission in the event that a contact has had sufficient contact with a confirmed case of pandemic influenza they maybe incubating the disease from their exposure.

Quarantine means the person stays in their designated accommodation and does not leave the building. They cannot leave to shop or attend to family and friends. If there is an outside area that cannot be accessed by other hotel guests (public) this can be used by people in quarantine.

Visitors are not permitted. People going into quarantine need to understand that they may not be able to go outside the quarantine area, for a period of time, and that they will be contained under supervision. Putting people into quarantine, particularly against their will, is a very significant intervention. To make people comply, they need to be informed and provided with the most comfortable surroundings as possible. Despite measures to improve voluntary compliance, it is likely that some people will resist quarantine, either initially or after a period of time.

Hotels are excellent facilities to quarantine people because they are stand-alone facilities with separate bathrooms and hand washing facilities in each room. Hotels can also cater for family groups to be accommodated together if appropriate and the supply of food, linen, towels and bedding for each room can be safely handled using appropriate infection control measures on site. People will require access to medical services, psychological support and the ability to communicate with friends and family outside the quarantine area.

The following hotels in the region have been identified as being willing to set up suitable quarantine facilities. A memorandum of understanding (MOU) has been signed by each hotel and MidCentral District Health Board. These hotels will only be used for contacts of pandemic influenza that:

- Require quarantine who do not have a permanent residence

Quarantine facilities could also be required for tour bus parties or from a diverted flight from an international airport.

Hotels in the region have agreed to continue to accommodate people who develop flu symptoms as long as the DHB takes responsibility of ensuring their health needs are met. In such cases the DHB will make arrangements for either local Public Health Nurses, communicable diseases nurses or local General practitioners provide the service.

Hotels to be confirmed.

As a general principle, in the event of an outbreak of pandemic influenza, the public will be expected to access information about the influenza and influenza health care services themselves. This access will be achieved in the following order:

1. 0800 Health lines – these will provide advice on what to do when one is displaying symptoms which are consistent with having contracted the influenza virus.
2. Accessing Flu Clinics or if appropriate Community Based Assessment Centers.
3. Being admitted to Hospital or a secondary care facility.

There will be occasions where people are simply unable to physically visit Community Based Assessment Centers or other health care facilities to receive the treatment which will be available.

During an influenza pandemic the actual medication (antibiotics and antivirals) will become a valuable and sought after commodity. In the event that the public at large start to panic the personal security of health professionals going about their business, and in possession of these medications, will become an issue.

When all other options have been exhausted and it becomes necessary to deliver and administer the medication at the patients location the security of the health professional carrying the medication must be considered and mitigated.

Security strategies to protect health professionals should include consideration of the following:

- Ensuring that health professionals carrying out this duty are made aware of the risks involved and the strategies that are to be considered by them in order to maintain a degree of personal security. (This includes abandoning the medications if this becomes necessary).
- Ensuring that the health professional has adequate means of communicating with their base in the event of an emergency.
- Staff will not travel in a marked car wherever possible.
- Staff will use other vehicles which are not readily linked to health agencies e.g. utilities, vans.
- Ensuring that the medication is packaged in a discreet manner.
- Staff will not travel alone
    - Arranging for DHB security contractors (where available) to accompany the health professional during the home visit.
    - Arranging for Police (when available) to accompany the health professional during the home visit.
    - Arranging for suitable community volunteers to accompany the health professional.

Every pandemic or outbreak of infectious disease which requires samples to be taken and analysed will require different levels of bio hazard precautions. Some may be standard local laboratory practice and others may require additional precautions.

In the case of a pandemic the World Health Organisation (WHO) http://www.who.int/csr/en/ and European Centre for Disease Prevention and Control (ECDC) http://www.ecdc.europa.eu/en/Pages/home.aspx websites will provide the most up to date infection control / health and safety directions in respect of the particular virus. There may also be some guidance on sampling techniques. Regularly check this site for changes in recommendations that might impact on laboratory testing procedures.

On receipt of notification of a pandemic or outbreak of an infectious disease, Infection Control practitioners and Laboratory Service Managers within MDHB should liaise to plan as follows:

1. The DHB Incident Controller should ensure that contact is made with Laboratory Managers to ensure that protocols for taking, handling and processing samples from within the MDHB catchment are agreed. The Medical Officers of Health should approve the protocol. The protocol should include:
    - The criteria for sampling patients with consideration to primary and secondary health.
    - Type of samples required.
    - Details of the equipment to be used and where supplies can be obtained from.
    - Sample collecting techniques.
    - Packaging, addressing and delivery instructions including consideration for infection control/ health and safety.
    - Details of any security requirements.
    - Details of likely turnaround times and implications in respect of immediate isolation of the patient.
    - Details of notification systems for inpatients results. (Consider speaking to IS programme analysts to set up daily auto reporting system to capture newly reported positive results.)
    - Details of direct Laboratory notifications systems to the Medical Officer of Health and Infection Control clinical nurse advisor. (Consider speaking to programme analysts as above.)
    - Priority criteria for:
        - Mental Health inpatients
        - ICU
        - Paediatric patients
        - Other high risk groups as identified for the particular pandemic

2. Ensure that the sample collecting supplies within the DHB are reviewed, purchased as necessary and made available to health professionals who might need to use them.

3. Ensure that the protocols are circulated widely to primary and secondary medical practitioners within the MDHB.

4. When the virus/disease is a new one, ensure the doctors taking samples are aware that there could be delays in reporting results due to the need to establish new IT systems. They should be prepared to monitor progress of the sample testing closely and to put in place appropriate patient isolation precautions as an interim measure until the results are returned.

5. If it is necessary to send samples outside the MDHB usual referral area the DHB Planning and Funding Manager responsible for Laboratory Services must be consulted.

6. Where it is necessary to transport samples after hours or on weekend consider available courier systems and any security requirements that are necessary for the particular samples.

Vaccination Activation Plan **Appendix 6**

A key component in managing infectious disease outbreaks is the implementation of timely and robust immunisation programmes when vaccines are available.

Should a pandemic vaccination campaign be thought necessary the Ministry of Health will publish guidance for DHBs, which will be tasked with implementing vaccination campaigns when required.

New Zealand has stores of sufficient needles and syringes, sharps containers, and other vaccination equipment and supplies to mount a mass vaccination campaign. These supplies will be mobilized as necessary to support any pandemic vaccination campaign.

Depending on availability, vaccine may be restricted to priority groups, front line health workers and emergency services, or it may be offered to the general public.

MDHB has a three staged plan to deliver vaccinations unless directed otherwise nationally:

1. Targeted Pandemic (Health care workers and those at risk of complications.)
2. Restricted seasonal (Health care workers; those at risk of complication; not to healthy people over 65; no private market.)
3. Normal seasonal. (Normal seasonal groups; all people; open to private market.)

The rollout of the stages will be supported by the combined efforts of Acute and Specialist services, General Practice, and DHB Communications staff. Public Health Nurses who are experienced in such vaccination programmes will also support vaccination initiatives as required. Ward based vaccinators can be used in the hospital setting.

Public Health Service, Infection Prevention and Control and Primary Care are responsible for coordination and maintenance of any vaccination programme within MDHB. Central coordination is an aspect of the Action committee.
Communication staff will work with these areas to promote vaccination programmes.

When considering vaccination programmes the option of prescribing vaccine to high risk individuals presenting at Hospital ED should not be excluded.

Aim

Clear communication before, during and after a pandemic will facilitate implementation of the pandemic response, allow healthcare workers to function most effectively, and address fears and concerns amongst the public.

Objectives

The overall objectives of the communications planning are to:

- Provide clear, accurate and consistent information to the main audience, key partners and stakeholders.
- Raise awareness of potential consequences of an influenza pandemic.
- Minimise public alarm.
- Ensure people in the community have clear information about how to prepare themselves and their families for a pandemic and where to get help.
- Reiterate public health messages such as hand washing, cough etiquette etc.
- Ensure timely communications by a variety of means appropriate to the target audiences.
- Incorporate risk communication principles in all messaging.
- Work closely alongside the Ministry of Health and its media strategy.
- Work closely with Maori and Pacific Island peoples and those deemed most at risk to ensure information is accessible.
- Portraying an "organisational body language" that is open, honest and trustworthy.
- Link with appropriate communications professionals from other public sector and local body areas across the DHB, to increase understanding of the communications function and operation in the event of a pandemic
- Review and evaluate the communications plan.

Communication initiatives to reach target audiences

Communication is essential to the management of any pandemic response. During a pandemic, the aim of a communication plan is to ensure that communications:

- Use existing media, communication channels, resources and partnerships – news media outlets, established communications networks, websites, professional bodies and organisations, and church and social groups.
- Are simple and achievable – do not over complicate the message- what is important, and what will work.
- Are appropriately targeted – ensure specific strategies and plans for specific groups, work with established professional bodies and networks.
- Are e mailed to key groups.

Influenza can lead to serious illness which results in patients being admitted to ICU and requiring ventilation.

Experience with the H1N1 influenza virus indicated that a high percentage of those patients that required hospitalisation also required intensive care and ventilation for an average period of seven days. (Normal average 3 days)

As a result normal ICU resources can rapidly become overloaded.

In order to achieve an increase in ICU capacity the hospital will need to deploy their trained workforce differently and may need to postpone elective surgery, so that they can concentrate their staff and resources on the most seriously ill patients.

Regional and National Management of ICU Capacity

During a pandemic ICU resources will be coordinated on a National basis to maximize the service available. Coordination is facilitated by the Ministry of Health and involves regular teleconferences between Intensive Care Managers, and daily reporting of DHB ICU capacity through the Ministry of Health's, bed based emergency management system.

National Bed Capacity

- National ICU bed capacity is 181 beds.