WHANGANUI
DISTRICT HEALTH BOARD
Te Poari Hauora o Whanganui

Whanganui District Health Board

Pandemic Plan

2019 - 2022

Contents

Section One: Background

What is pandemic influenza?

Definitions of 'pandemic' and 'influenza'

Pandemic: An epidemic that becomes very widespread and affects a whole region, a continent or the world.

Influenza: A contagious viral disease of the respiratory tract.

An influenza pandemic is the most likely event to cause a large-scale health emergency. Three major influenza pandemics occurred in the 20th century, reaching New Zealand in 1918, 1957 and 1968. Recent estimates put mortality from the 1918 pandemic at between 50 million and 100 million worldwide. In New Zealand, the 1918 pandemic is estimated to have infected between a third and one half of the entire population, causing about 8,000 deaths, of which at least 2,160 were Māori. However, the first wave of influenza A (H1N1) 2009 reminds us that some pandemics may have only a small impact on death rates. The New Zealand Influenza Pandemic Action Plan (NZIPAP) has been designed to ensure it can be readily adapted for mild or severe pandemics.

Characteristics of influenza

Influenza is a contagious viral disease of the respiratory tract. It is a major threat to public health worldwide because of its ability to spread rapidly through populations and to cause complications. Relatively minor epidemics of influenza typically occur in New Zealand during winter, often affecting all age groups and causing many complications, including viral or bacterial pneumonia.

Influenza is a significant and under-recognised cause of mortality in the New Zealand population, including many cases where influenza contributes to an elderly or chronically ill person's death.

Influenza is characterised by rapid onset of respiratory and generalised signs and symptoms, including fever, chills, sore throat, headache, dry cough, fatigue and aching. Influenza is easily spread through droplets from an infected person (suspended in the air through coughing or sneezing) being inhaled by another person, or through contact with contaminated objects. The incubation period can range from one to seven days, but is commonly one to three days. There is limited evidence that adults are infectious for half a day to one day before most symptoms start, and until about day five of the illness. Children generally remain infectious for up to seven days after symptoms start, but may be infectious for up to 21 days.

Characteristics of pandemics

Influenza pandemics are characterised by the global spread of a novel type of virus, and may cause unusually high morbidity and mortality for an extended period. Most people are immunologically naive to the novel virus, and are therefore susceptible to infection. A severe pandemic can overwhelm the resources of a society due to the exceptional number of people affected.

A pandemic entails not only the emergence of a new viral subtype, but also the capacity of that virus to spread efficiently from person to person and cause significant human illness.

Influenza pandemics

During the 20th and 21st centuries to date, the emergence of several new influenza A virus subtypes has caused four pandemics, all of which spread around the world within a year of being clinically recognised. These were:
the 1918/19 pandemic influenza A (H1N1)
the 1957/58 pandemic influenza A (H2N2)
the 1968/69 pandemic influenza A (H3N2)
the 2009/10 pandemic influenza A (H1N1) 2009.

The 1918/19 pandemic caused the highest number of known influenza deaths. Many people died within the first few days after infection, and others died of secondary complications; nearly half of those who died were young, healthy adults.
New influenza viruses arise from recombination in humans, pigs and birds. People have little or no pre-existing immunity to these new viruses.[1]

Impact of pandemics on Māori and Pacific peoples in New Zealand

The 1918/19 pandemic had a severe impact on Māori, whose death rate of 4.2 percent was approximately five to seven times higher than the non-Māori death rate.

Māori and Pacific peoples in New Zealand had higher rates of morbidity for the influenza A (H1N1) 2009 pandemic than other ethnic groups.

History, therefore, suggests that Māori and Pacific peoples are more susceptible to pandemic influenza than other groups.

The type of pandemic being planned for
The national plan that the Whanganui District Health Board Pandemic Plan is based on, is the New Zealand Influenza Pandemic Plan.

https://www.health.govt.nz/system/files/documents/publications/influenza-pandemic-plan-framework-action-2nd-edn-aug17.pdf

This is flexible enough to enable a response to be tailored to the level of severity of a pandemic. Key actions outlined here reflect the more serious end of the scale of national health emergencies, but can readily be customised for less serious pandemics.

The impacts in New Zealand of the 1918/19 influenza pandemic represent the severe end of the spectrum in a standard planning model providing planners with a means of determining the scope, scale and duration of future severe pandemics.

The New Zealand standard planning model assumes a severe pandemic wave in which 40 percent of the New Zealand population (more than 1.9 million people) become ill over an eight-week period. The peak incidence in the model occurs in weeks three to five, when about 1.5 million people – a third of New Zealand's population – would be ill, convalescing or just recovered. These figures are based on the New Zealand population statistics published by Stats New Zealand 2013 – 4,766,140.

The standard planning model assumes a total case fatality rate of 2 percent, within which about 38,000 deaths would occur over the eight-week period, peaking at about 23,500 in week four (compared with New Zealand's normal weekly death rate of around 599). It is important to note that this is not a prediction – it is not possible to make any such forecast before a pandemic develops. A 21st-century pandemic may not reflect the course, incidence or fatality rates of the 1918 pandemic.

The model's purpose is to provide a structure around which the health sector, Government and New Zealand as a whole can plan for a very large event having severe impacts on all aspects of society. Because the 1918 pandemic in New Zealand is relatively well understood and documented, it has been selected to provide the basis for the standard planning model. It is necessary that plans be based on the circumstances that a 1918-type pandemic could represent, while recognising that future pandemics might be more moderate in their impact.

Ministry of Health. 2017. New Zealand Influenza Pandemic Plan: A framework for action (2nd edn). Wellington: Ministry of Health

1

New Zealand pandemic planning is based around a sequential five-stage strategy:
One- Planning ('prepare for it')
Two - Border management ('keep it out')
Three - cluster control ('stamp it out')
Four - Pandemic management ('manage it')
Five – Pandemic management post peak
Six - Recovery

Purpose

This document establishes a framework and defines relationships needed to respond to a pandemic affecting the people of the Whanganui region. The guiding principles and objectives of this plan are based on those identified in the national plan.

Guiding Principles

- 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.

Objectives

- Describes the context within which Whanganui District Health Board (WDHB) will function during a pandemic
- Clarifies the roles and responsibilities of WDHB, and of local providers such as hospital, primary care, and public health services
- Describes the WDHB emergency management system
- Describes the mechanism through which this plan will be activated and stood down.

Activation of the Plan Will

- Ensure rapid, timely and coordinated action
- Ensure 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 usual" activities are protected as much as possible
- Minimise the social disruption and economic losses associated with the pandemic.

Planning Assumptions

The following assumptions underpin the planning done by the Ministry of Health and WDHB:

- Human-to-human transmission will become established overseas, and New Zealand will have forewarning of the threat.
- Introduction of the infection to New Zealand will be via a human entering the country
- The height of the pandemic is expected to be at weeks 3-5, once person-to-person spread is fully established in any given area

- The great majority of cases will be managed in the community and will not need hospital care.

The national pandemic stock includes antiviral medication 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.

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.

Individual health providers are responsible for keeping an initial stock of personal protection equipment for use by their staff.

A high level of public information will be provided at a national level.

National protocols will be developed for issues such as management of cases at airports and in the community, management of contacts, closure of facilities, use of antiviral medications supplied by the Ministry of Health.

Overall management of the local response will be coordinated by an incident management team in accordance with the Coordinated Incident Management System (CIMS) model.

Planning Structure

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

National Health Emergency Plan
https://www.health.govt.nz/system/files/documents/publications/national-health-emergency-plan-oct15-v2.pdf

Whanganui DHB Health Emergency Plan
https://wdhb.org.nz/contented/clientfiles/whanganui-district-health-board/files/wdhb-health-emergency-plan-2014-2016.pdf

Whanganui DHB Pandemic Influenza Guideline for Patient Management
http://intranet/admin/data/documents/pandemic-influenza-guideline-for-patient-management-guideline-5.pdf

NZ Influenza Pandemic Plan: A framework for action
https://www.health.govt.nz/system/files/documents/publications/influenza-pandemic-plan-framework-action-2nd-edn-aug17.pdf

Whanganui WDHB/WRHN Region Community Based Assessment Centres Plan

Guidance on Community-based Assessment Centres and Other Support Services
https://www.health.govt.nz/system/files/documents/publications/nhep-community-based-assessment-dec08.pdf

Section Two: Roles & Responsibilities

The Ministry of Health (MOH)

The Ministry of Health is the lead agency for planning for and responding to a pandemic on a national scale.

The Ministry of Health's particular responsibilities in the response phase include:

- activating a national emergency response, including activating and running the National Health Coordination Centre
- maintaining standard operating procedures for the National Health Coordination Centre that clearly identify roles and responsibilities consistent with the CIMS organisational strategy identified in the National Health Emergency Plan
- ensuring sufficient staff are trained and exercised to participate in the National Health Coordination Centre at short notice, and maintaining a knowledge base on pandemic planning and response
- undertaking national intelligence and planning, including liaising with, and reporting to, WHO and other international bodies responsible for providing high-level advice and recommendations to national authorities
- convening advisory groups and disseminating clinical and public health advice nationally
- providing information and advice to Ministers
- liaising nationally with, and advising, other Government agencies
- advising the NSS to activate the National Crisis Management Centre if necessary
- collating information for dissemination and use in New Zealand with the support of the best expert advice available
- providing inter-regional support for health services
- overseeing the health and disability sector response nationally to ensure consistency of advice and action across the country in all pandemic phases
- providing public information, including through public awareness and information campaigns, telephone advice lines and the internet, and links to information such as travel advisories that border control agencies produce
- instigating and standing down universal or targeted public health assessments
- coordinating services and resources nationally, as required.

The Whanganui District Health Board (WDHB)

District Health Boards are the lead agencies for planning for and responding to a pandemic on a local and regional level. A DHB's particular responsibilities during the response include:

- coordinating with the medical officer of health and civil defence emergency management (CDEM) controller in its region
- providing appropriate support to public health units, so they can carry out their core functions
- implementing its major incident and emergency plan or pandemic plan, as necessary, and contributing to implementation of the applicable regional incident coordination plan
- implementing instructions, advice and guidelines issued by the Ministry of Health through the regional coordination team
- ensuring hospitals and health services function to the fullest possible extent during and after the emergency, including infection prevention and control and laboratory capacities
- ensuring community-based health services are available to meet increased demand for assessments, including the establishment of community-based assessment centres (CBACs) as required
- implementing vaccination campaigns
- using information produced by the Ministry in communicating with local communities, agencies and providers
- communicating with and supporting health and disability providers in its region, including ambulance services, primary care providers, aged care providers, non-governmental organisations and Māori and Pacific providers
- liaising with other agencies at a local level, as appropriate (including local government, CDEM agencies, education providers, welfare agencies, border agencies and national health groups with local representation)
- contributing to the regional coordination team, and implementing regional decisions at a local level.

Primary Health Organisations (PHOs) and Iwi Health Organisations

The PHOs within this region include:

- National Hauora Coalition (NHC)
- Ngati Rangi Community Health Centre, Ohakune
- Otaihape Maori Komiti, Taihape.
- Te Kotuku Hauora o Rangitikei, Marton
- Te Oranganui Iwi Health Authority
- Whanganui Regional Health Network (WRHN)

PHOs will assume the management of:

- the general practice response to a pandemic and initiate flu clinics and Community Based Assessment Centres (CBAC) as required by the WDHB EOC, while assisting with maintenance of business as usual

- the human resourcing of CBAC's (clinics, triage and other services as required) as outlined in a Memorandum of Understanding (MOU) between WDHB and the WRHN and NHC

- advising general practices on responsibility for their own emergency management plans, and providing representation on an Advisory Committee as requested by the WDHB

- 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 outbreak, infection control resources and expertise will be made available from the WDHB. It is expected that PHOs will have established infection prevention and control policies and procedures in line with Infection Prevention and Control Standards NZS8134.3:2008

Public Health

The Public Health service in the Manawatu – Whanganui region is split between MidCentral DHB and Whanganui DHB. MidCentral DHB maintains regulatory functions, including the Medical Officer of Health, and Whanganui DHB maintains services such as public health nursing.

The Medical Officer of Health has various statutory powers for control of infectious disease. Special powers (sections 70 & 71, Health Act 1956) require the authorisation of the Minister of Health, or declaration of a 'state of emergency' (Civil Defence Emergency Management Act 2002), or can be used while a pandemic notice is in force. The Epidemic Preparedness Act 2006 strengthens the emergency powers of the Medical Officer of Health under the Health Act 1956, in the threat or emergence of an epidemic.

Public health units are responsible for:

- developing and implementing plans for public health emergencies
- maintaining and enhancing surveillance of public health
- maintaining and enhancing border health response activities
- investigating 'cases' (sick people) and 'contacts' (people who may have been exposed to the virus, but who have not yet developed, or may not develop, symptoms)
- using control measures (including statutory powers) as necessary
- integrating public health planning and response with DHB planning and response
- accessing support from DHBs and other agencies to maintain core functions
- advising local agencies and lifeline utilities about the public health aspects of their planning and response
- investigating, assessing and responding to events involving risks to public health
- ensuring advice and action are consistent across the country

Advisory Committee

This committee has oversight of the planning and response to a pandemic and will provide expert advice to the incident management team.

Core membership includes:
- Medical Advisor (chair)
- WDHB Chief Executive (ex officio)
- Medical Officer of Health
- WRHN and other Iwi/PHO management representative
- Executive Management Team (EMT) representative
- Infection Prevention and Control representative
- Te Hau Ranga Ora – Maori Health representative
- Emergency Management representative
- Invited representation as required, for example, pharmacy, health protection officers, facilities

Other Health Providers

Health providers, such as aged residential care, are required 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

In the event of a pandemic, the lead agency will be the Ministry of Health who will be coordinating the response of DHBs around the country.
The Ministry of Civil Defence and Emergency Management will support this response via regional Emergency Coordination Centres (ECCs) and local Emergency Operations Centres (EOCs).

Regionally, Whanganui DHB is covered by the Manawatu-Whanganui Emergency Management Group, who will coordinate the Civil Defence response via the local Civil Defence and Emergency Management Groups – Whanganui, Ruapehu, and Rangitikei.

Representatives from Whanganui DHB/Public Health will liaise with these groups throughout to ensure a coordinated and consistent response.

Other Agencies

The Whanganui District Health Board acknowledges the roles that will be played by other agencies in the response, such as NZ Police, NZ Defence, St John Ambulance, Fire and Emergency New Zealand, Ministry of Education, business communities, volunteer agencies, and others.

Section 3: WDHB Emergency Activation and Response

Coordination of The Event

The Whanganui DHB will coordinate the event through an Emergency Operations Centre. The command structure will be based on the Coordinated Incident Management System (CIMS)

The Incident Controller will be either the Chief Executive Officer of the WDHB, or a delegate who will assume control. An incident management team will be selected according to individual skills and severity of situation.

The Advisory Committee will provide advice to the Incident Management Team

Notification and Activation Process

Ministry of Health to Whanganui DHB Single Point Of Contact (SPOC)
SPOC - Duty Nurse Manager (DNM)

Advisory notification received from the Ministry of Health

WDHB Duty Nurse Manager notifies WDHB Nurse/Business Manager (on duty), who then notifies/liaises with the WDHB Chief executive officer (CEO)

Duty Nurse Manager notifies Patient Safety (Emergency Management Coordinator or delegate) and Advisory Committee to be established to monitor developments

Code Yellow (Standby) received from the Ministry of Health

All actions as above (code white), plus:

- Prepare to activate the WDHB Health Emergency Plan in conjunction with this plan – stand by WDHB EOC
- Prepare to activate the Central Regional Health Emergency Plan, if needed
- Prepare to open up Community Based Assessments Centres (CBACs)as required in conjunction with the Whanganui Regional Health Network

Code Red (Activation) received from the Ministry of Health

- All actions as above (advisory and yellow codes)
- Open up Emergency Operations Centre
- Activate the WDHB Health Emergency Plan in conjunction with this plan
- Escalate to the Central Regional Health Emergency Plan as necessary
- Escalate to the national Health Emergency Plan as necessary

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

EOC will stand down all response staff and advise to resume normal functions.

Stages and Activation

Response stages - World Health Organisation (WHO) and Ministry of Health (MOH)

<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>ADVISORY (initial notification)</td></tr>
<tr><td rowspan="4">Pandemic Alert Period</td><td rowspan="2">Phase 3</td><td>YELLOW (Standby)</td><td>Prepare to activate EOC
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 rowspan="3">RED (Activation)</td><td rowspan="3">Activate EOC
Activate Regional Co-ordination Teams
Manage own DHB response, as required under regional co-ordination arrangements.</td></tr>
<tr><td>Phase 4</td><td>Border Management</td></tr>
<tr><td>Phase 5</td><td>Cluster Control</td></tr>
<tr><td>Pandemic Period</td><td>Phase 6</td><td>Pandemic Management</td><td></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>

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.

Section 4: Health Sector Responses

Overview of Functions During Phases of Response

Stage		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 (including administering Tamiflu) through community based assessment centres Vaccination if available	Treatment of severe cases Transfer if needed Re-prioritisation of other work	Limit social interaction through possible use of special powers Health Act Vaccination if available (via PHNs)
Recover				

Secondary Care Response

"Stamp it out" phase:
Whanganui Hospital can be used for isolation and investigation of initial cases.

Initial tests, including nasopharyngeal swab and a chest X-Ray, can be done 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. Transfer to a higher level unit will be arranged if required.

"Pandemic" phase:
National guidance is expected in setting criteria for hospital admission with Whanganui 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 Regions 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), assistance from NZ Defence.

Information from the Ministry of Health will be updated on the website

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

The pandemic advisory group will keep staff informed during all stages of a pandemic via the public information management function in the EOC.

Public Health Response

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)).

The Medical Officer of Health receives notification of certain communicable diseases (including H5N1 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.

Public Health Unit is responsible at the "keep it out" phase of the epidemic to liaise with border control at international airports. The nearest such airport to Whanganui is RNZAF Base Ohakea, which falls under the responsibility of MidCentral DHB.

At the "stamp it out" phase, public health will have a lead role to ensure the effective isolation of case and contacts. For an isolated case the two negative pressure rooms at the hospital could 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 antivirals 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.

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.

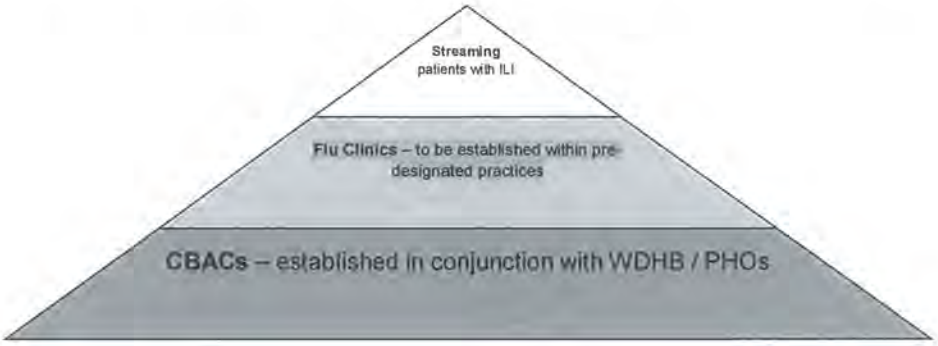
Primary and Public Health: As noted under "Primary Health Response", delivery of any vaccine will require the combined efforts of primary and public health.

Public Health and Whanganui 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 WDHB, Public Health and the PHOs in the set up of the following influenza /pandemic responses, if the situation escalates.

The following diagram shows the expected response as the situation escalates



Note: Telephone Triage is an essential feature of any pandemic response. It is anticipated that in each facility, whether general practice, flu clinic, or CBAC - telephone triage will be included as an on-site activity, resourced with a registered nurse and widely publicised.

Streaming

Advisory code pandemic state with a low severity level of infectious disease

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

- telephone triage
- providing a separate waiting area
- supplying masks for patients who are coughing
- setting aside a particular time of the day for ILI patients

Flu Clinics

Code yellow pandemic state with a low severity level of infectious disease

A flu clinic is an existing general practice site allocated to seeing only influenza 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 WRHN in consultation with the practices, initiated by WDHB EOC and resourced by WDHB, in accordance with Ministry of Health guidelines and an MOU between WDHB and WRHN.

Community Based Assessment Centres (CBACs)

CBAC Plan A

Code yellow pandemic state with a low severity level of infectious disease

CBAC plan A is based on an incidence of influenza where the numbers of people presenting to GP practices has proved too numerous to be managed within GP practices. 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. At present Gonville Health is the first CBAC that would be activated.

See WRHN CBAC plan A for Gonville for specifications such as; a large area with 6 examination rooms with examination tables that can be separated for the Gonville Practice and operate independently.

Staffing requirements
Projected pandemic figures suggest that a CBAC will require:

- one doctor during the full capacity hours
- two registered nurses for triage, information gathering, preparation of scripts and dispensing medication

Staff will be resourced from general practices, WRHN, Te Oranganui Iwi Health Authority, volunteer groups and the WDHB - depending on workforce availability.

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

Scenario for CBAC Plan B

Code red pandemic state - with a high severity level of infectious disease

CBAC plan B is based on a 40% incidence of infection and a 2% mortality over an eight week period. This equates to 25,880 cases and 513 deaths for the Whanganui District Health Board territory in a worst case scenario.

During the eight week period that the pandemic is expected to begin, peak, and then decline, it is estimated that the preceding numbers may present at a CBAC.

Plan B uses the Whanganui Central Baptist Church Centre for a code red pandemic state with a high severity level of influenza. This is located in Wicksteed Street, Wanganui. A Memorandum of Understanding between the Whanganui District Health Board and Whanganui Central Baptist Church Centre will be in place before activation.

See CBAC plan B for Central Baptist Church specifications – these include a large open plan area, a drive through for car triage, and multiple areas for different stages of triage.

Staffing requirements
The expected figures suggest that the CBAC will require 4 doctors during the full capacity hours and two doctors in the evening.

Registered nurses will be required for triage (car triage, CBAC triage), information gathering, preparation of scripts and dispensing medication.

This staff will be resourced from general practices, WRHN, Te Oranganui Iwi Health Authority, volunteer groups and the WDHB depending on workforce availability.

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

Rural Flu Clinics and CBAC's

Code yellow pandemic state with a low and high severity level of infectious disease

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 WDHB EOC in accordance with needs.

In Marton, Taihape and Raetihi, the general practices are either co-located or next door to DHB/ Community Trust facilities. When a CBAC is activated by the WDHB EOC one facility could be designated for the CBAC and the other for primary health care. Ohakune populace could use the designated CBAC in Raetihi.

The pandemic plan in Bulls uses one practice for a CBAC and the other for primary health care.

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 WRHN in consultation with the practices, initiated by WDHB EOC and resourced by WDHB, in accordance with Ministry of Health guidelines and an MOU between WDHB and WRHN.

CBAC'S and Flu Clinics in Urban and Rural Areas

Other resources

All resources will be supplied by the WDHB, apart from those already available on site, such as examination tables and ICT equipment.

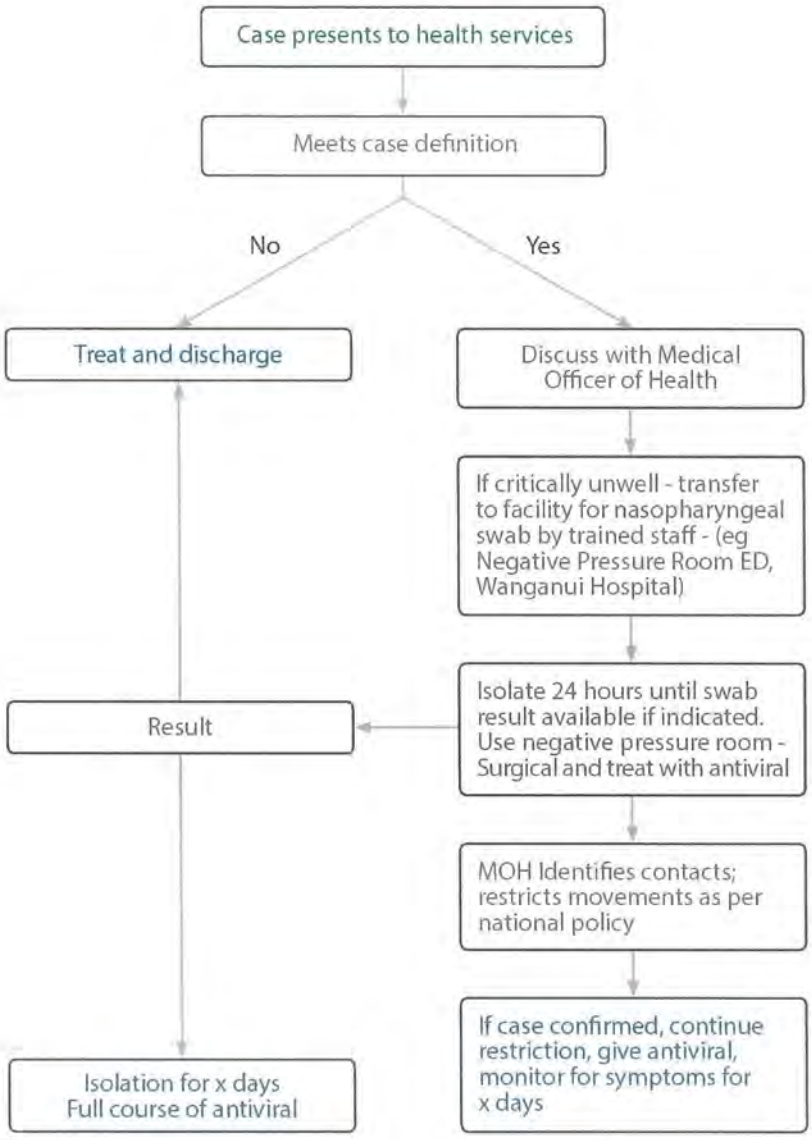
All CBAC's to be supplied with resources from the WDHB within a reasonable time frame, with consideration for travel time included. The CBAC will be activated and resourced through the WDHB EOC

Funding of staffing for Community Based Assessment Centres and Flu clinics is from the WDHB as per signed MOU between WDHB and WRHN

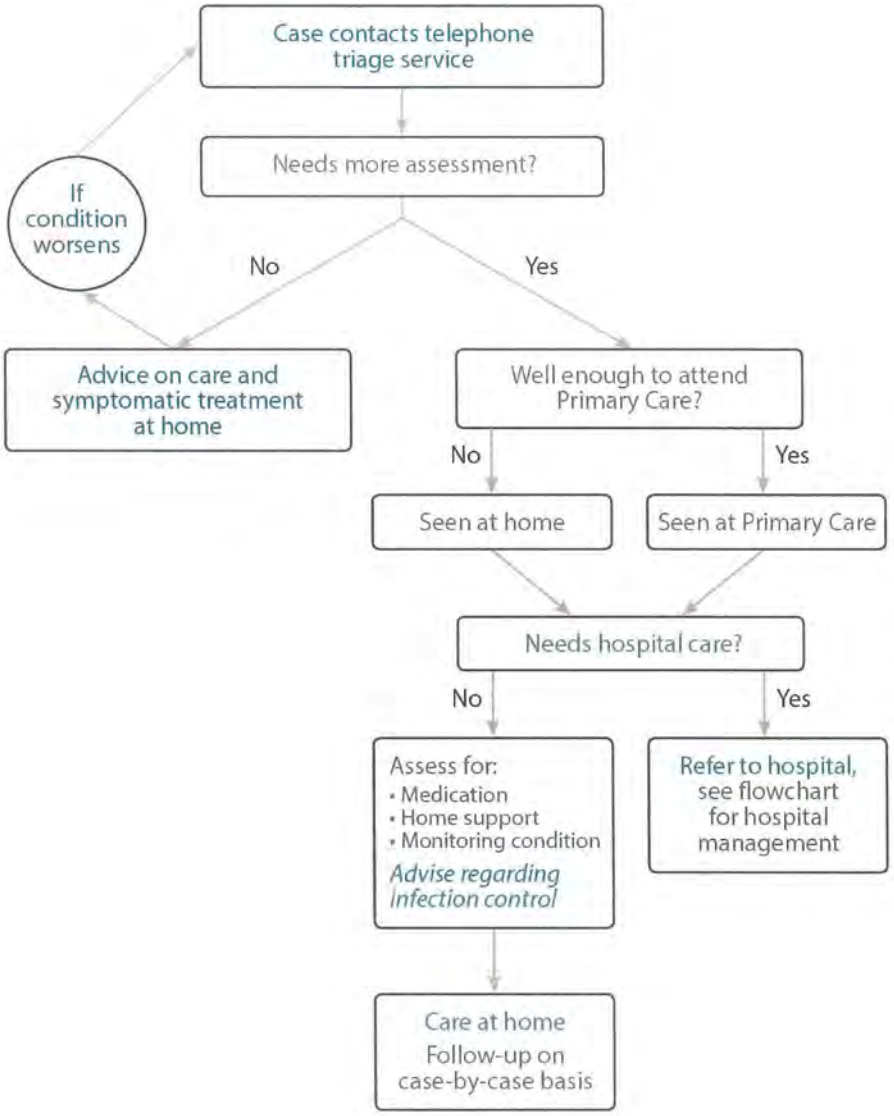
All services will be free to the community

Section 5: Likely Clinical Pathways

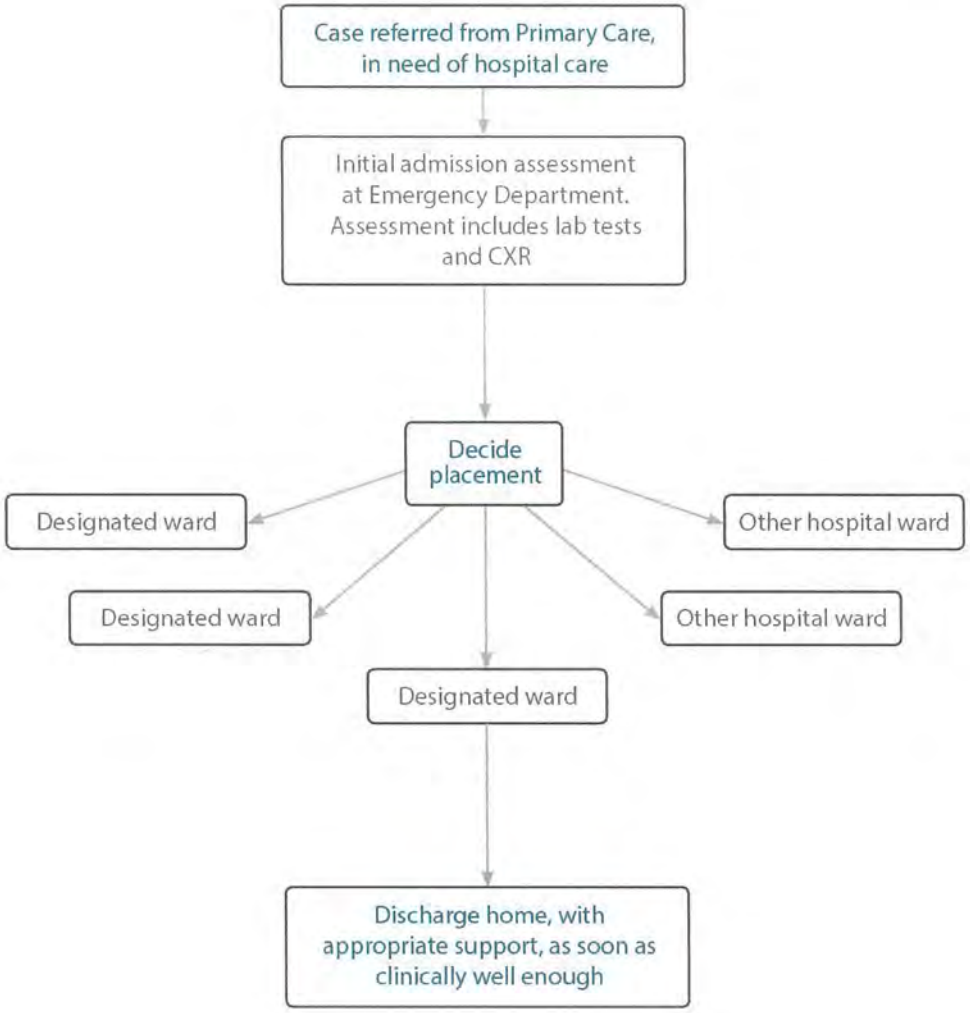
Suspect Case: "Stamp It Out" Phase



Case in Community: "Manage It" Phase



Case in Wanganui Hospital: Pandemic Phase



Section 6: Specific Action Plans

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 WDHB. The WDHB 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. The pandemic stock may also be distributed through CBACs as required.

Tamiflu is the first line antiviral treatment. Relenza is used where Tamiflu 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.pdf

Details around the national reserve supply of antivirals can be found at

https://www.health.govt.nz/system/files/documents/publications/nhep-reserve-supplies-usage-dec-2013-v2.pdf

Diagnostic Laboratory Testing

Introduction

Testing for infection will be a high priority during the "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.

Diagnostic Tests

The definition of a confirmed case will be developed nationally.

Definitive tests will be done outside Whanganui. 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 both for the hospital and for general practice and viral transport medium.

Nasopharyngeal swab

Staff performing the procedure must be appropriately trained, and must wear protective clothing – gown, N95 mask, goggles. At Whanganui Hospital nasopharyngeal swabs are done by medical staff. 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.

National Laboratory Guidelines for Pandemic Influenza

The National Laboratory Guidelines for Pandemic Influenza are intended for use by health professionals and laboratory staff to ensure safe handling and collection of human specimens for diagnosis of influenza with pandemic potential.

https://www.health.govt.nz/system/files/documents/publications/national-laboratory-guidelines-pandemic-influenza.pdf

Personal Protection Equipment (PPE) - National Pandemic Stock

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

- WDHB Infection Prevention and Control Manual
- New Zealand Influenza Pandemic Plan: A framework for action 2017
- 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

Further details can be found at

https://www.health.govt.nz/system/files/documents/publications/nhep-reserve-supplies-usage-dec-2013-v2.pdf

National Pandemic Stock – Supplies are stored by the WDHB 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
Handrub – Microshield	276
Burette Solution Set	288
Giving Set IV	120
Cannula (various)	5, 700 + 3,740

WDHB 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 WDHB EOC Incident Controller.

Community Measures to Reduce Social Interaction

Introduction
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.

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

Section 79 of the Health Act states: *"If the Medical Officer of Health or any Health Protection Officer has reason to believe or suspect that any person, whether suffering from an infectious disease or not, is likely to cause the spread of any infectious disease, he may make an order for the removal of that person to a hospital or other suitable place where he can be effectively isolated."*

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 Section 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.

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 a declared state of emergency, the lead agency will be the Ministry of Health, with the local response coordinated by the WDHB EOC.

The Medical Officer of Health will be a member of the Advisory Committee advising the Incident Controller, and any actions taken pursuant to ss70&71 of the Health Act will be taken with the agreement of the Incident Controller.

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 teams 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.

Vaccination

Pre-pandemic influenza vaccination
The Ministry of Health holds a quantity of pre-pandemic influenza vaccinations. These are from a circulating strain of influenza virus that has the potential to cause a pandemic. While it isn't possible to predict how effective this vaccination will be, it's likely that it'll enhance the response to a pandemic specific vaccine given at a later stage.

As a pandemic emerges, the pre-pandemic vaccinations are likely to be given to frontline health workers, frontline emergency services personnel, and people at high risk of developing complications from influenza.

https://www.health.govt.nz/system/files/documents/publications/nhep-vaccine-policy-dec2013-v2.pdf

Mass vaccination
Once the circulating strain of influenza virus responsible for the pandemic is identified, it'll take some months for the vaccine to be manufactured and delivered to healthcare providers in New Zealand.

If a mass vaccination campaign is thought necessary once this vaccine arrives, this will be coordinated by the Ministry of Health, who will task Whanganui DHB with implementation.

Care of the Deceased

A severe pandemic will result in a significant increase in mortality over a relatively short timeframe. This increase in deaths will have an impact on business as usual arrangements for managing the deceased. For deaths that occur in hospital, there may be a delay in transferring the body to funeral directors, and it is the responsibility of Whanganui District Health Board to appropriately store the bodies of those who have died in hospital until the funeral director can take receipt of the body.

There should be discussion in the early stages of a severe pandemic around this increase in deaths (in hospital and in the community) and how the deceased will be cared for until they can be buried or cremated.

Key roles for this discussion should include:
- Civil Defence
- Logistics role from Whanganui District Health Board EOC
- Medical Officer of Health
- NZ Police – on behalf of the coroner
- Representative from local funeral directors
- Te Hau Ranga Ora – Maori Health or Iwi representative

Local facilities
Refrigerated storage facilities for bodies include:

- Beauchamp Funeral Home, Marton – no refrigeration capacity in Marton
- Cleveland Funeral Home, Whanganui – six to eight bodies
- Dempsey and Forrest Funeral Directors, Whanganui - 14 bodies
- Taihape Funeral Services lease Taihape Hospital Mortuary , Taihape - six bodies
- Whanganui Hospital mortuary - three bodies

This capacity can be increased through sourcing portable industrial refrigeration facilities with a location to be determined by the NZ Police on behalf of the coroner, and Whanganui DHB EOC

Further information on care of the deceased

https://www.health.govt.nz/system/files/documents/publications/influenza-pandemic-plan-framework-action-2nd-edn-aug17.pdf pp 134-138

https://www.health.govt.nz/system/files/documents/publications/national-health-emergency-plan-oct15-v2.pdf appendix 13

Communication

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

It will be essential that a public information strategy is initiated to support the management of the pandemic response and that information provided to the public and partner agencies is clear and consistent throughout.

The Ministry of Health will provide guidance and materials for this that will enable Whanganui DHB to customise messages to meet local circumstances.

Details around the Public Information Management Strategy can be found at

https://www.health.govt.nz/system/files/documents/publications/influenza-pandemic-plan-framework-action-2nd-edn-aug17.pdf appendix A

Health sector Emergency Management Information System (HealthEMIS)

Health EMIS, the health and disability sector's web-based 'emergency management information system', is the primary tool for managing significant incidents and emergencies at local, DHB, inter-DHB and national levels.

Health EMIS provides an electronic system to manage information produced during an incident or emergency. It does not replace verbal communications between agencies and service providers. It provides DHBs, public health units and other key health responders, such as ambulance services, with a logging and task-tracking system which they can use to manage their local response to an incident. The system complements other business-as-usual information systems.

Information in Health EMIS is visible to all organisations with access rights who are involved in the response. In the event of an emergency, other government agencies may be given access rights so that the health and disability sector response in an emergency is more visible.

The Ministry of Health manages and hosts the system.

Whanganui DHB will utilise Health EMIS to coordinate and manage a local response during a pandemic.

Te Hau Ranga Ora – Maori Health

The Whanganui District Health Board recognises that given the severe impact of the 1918/19 pandemic on Māori and the increased susceptibility of Māori to the influenza A (H1N1) 2009 pandemic, consideration of the specific needs of Māori, cultural sensitivity and the impact of a pandemic on traditional Māori protocols (tikanga) should be an integral aspect of pandemic preparedness planning at local and national levels.

The Pandemic Māori Reference Group (which comprised Māori health practitioners and representatives from DHBs) identified key issues for Māori as being:

- community infrastructure and needs
- factsheets produced for Māori communities
- Māori access to resources (for example finance, education materials and people)
- Māori engagement with DHBs
- the role of Māori providers
- workforce preparedness

A representative from Te Hau Ranga Ora will be part of the Whanganui District Health Board Pandemic Advisory Board and Pandemic Action Group to ensure that issues that directly and indirectly affect Māori are identified and addressed.

Hospital Admissions

The Whanganui District Health Board 'Pandemic Influenza Guideline for Patient Management' guideline will be followed to ensure safe treatment of patients presenting to hospital with an influenza like illness.

http://intranet/admin/data/documents/pandemic-influenza-guideline-for-patient-management-guideline-5.pdf

All patients requiring hospitalization for treating complications of pandemic influenza will be admitted directly and promptly to the allocated ward. All staff must follow the standard/droplet precautions principles whilst caring for these patients.

Patients requiring admission will be admitted to the appropriate ward as directed by the Bed Manager or Duty Nurse Manager.

Patient admissions for non-acute surgery or medical care may need to be postponed at this stage, in consultation with the incident management team.

Pandemic influenza patients will be reviewed and reported on each shift.

Staff

Staff are encouraged to ensure the safety and security of their immediate families by preparing for a pandemic in much the same way as preparing for any other disaster.

For general and up to date information on being prepared, the Ministry of Health pandemic information page is a useful starting point https://www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response/prepare-yourself-influenza-pandemic

To download a family plan http://www.getthru.govt.nz/assets/Uploads/GRG-Checklist.pdf

Staff vaccination
The Whanganui District Health Board offers free vaccination from the start of the 'flu season' to all staff. This is the best protection against influenza and staff members are encouraged to be immunised annually. Details around availability can be found on the intranet home page from approximately March/April onwards.

Staff absence
During a pandemic staff may need to stay at home because:
They are sick – staff who have signs and symptoms of influenza are required to stay away from work until medically cleared to return
They're caring for a sick family member
They're caring for a dependant (for example, if schools close).
Unless advised otherwise, staff should contact the Duty Nurse Manager or go through their usual reporting lines to advise of their absence.
Information for staff
During a pandemic there will be significant disruption to business as usual activities due to increases in illness in the community and staff absences. Staff will be kept informed via the Emergency Operations Centre.

Recovery
Whanganui DHB will participate in all-of-government recovery activities at district and regional levels, and oversee district and regional coordination of health and disability sector recovery activities. The Ministry of Health may require Whanganui DHB to implement national policy for the prioritisation of health supplies and services, to ensure national consistency across DHB districts.

Whanganui DHB will need to disseminate advice about psychosocial recovery to individuals and affected communities, and to implement support and recovery programmes for the public and health personnel in partnership with the CDEM sector.

This plan has been reviewed and revised by the Whanganui Regional Health Network, MidCentral District Health Board - Public Health, and the Whanganui District Health Board.

This Pandemic Plan (2019 – 2022) will provide a framework for a coordinated and integrated health sector response in the Whanganui region, in the event of a pandemic.

Links to Documents

- National Health Emergency Plan
- Whanganui DHB Health Emergency Plan
- NZ Influenza Pandemic Plan: A framework for action
- Whanganui WDHB/WRHN Region Community Based Assessment Centres Plan
- Central Region District Health Board's Health Emergency Plan.
- Other key documents
- National Health Emergency Plan: National Reserve Supplies Management and Usage Policies
  Getting Through Together: Ethical values for a pandemic.
- National Laboratory Guidelines for Pandemic Influenza: Collection and handling of human specimens for laboratory diagnosis of influenza with pandemic potential
- Guidance on Community-based Assessment Centres and Other Support Services.

Definitions

BAU	Business As Usual
CBAC	Community Based Assessment Centre
CCU	Critical Care Unit
CDEM	Civil Defence and Emergency Management
CEG	Coordinated Executive Group
CIMS	Coordinated Incident Management Team
CRHEP	Central Regions Health Emergency Plan
DHB	District Health Board
ED	Emergency Department
EMIS	Emergency Management Information System
EOC	Emergency Operation Centre
HEP	Health Emergency Plan
ICT	Incident Management Team
ILI	Influenza Like Illness
IMT	Incident Management Team
MOH	Ministry of Health
MOU	Memorandum of Understanding
NHCC	National Health Coordination Centre
NHEP	National Health Emergency Plan
PHO	Public Health Organisation
PHU	Public Health Unit
PPE	Personal protective equipment
SPOC	Single Point Of Contact
WDHB	Whanganui District Health Board
WHO	World Health Organisation
WRHN	Whanganui Regional Health Network