



Tasmania
DEPARTMENT *of*
HEALTH *and*
HUMAN SERVICES

TASMANIAN HEALTH ACTION
PLAN FOR PANDEMIC INFLUENZA

Department of Health and Human Services

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AUTHORITY FOR PLAN

This plan is issued by the Tasmanian Department of Health and Human Services (DHHS) and details the framework that Tasmania will use to manage the public health and health care system response to an influenza pandemic.

The plan has been prepared in the context of a broader approach to major epidemics, the Tasmanian “Major Epidemics Management Plan” (MEMP), and is in effect a more detailed sub plan of MEMP, which in turn forms part of the infrastructure of the DHHS Emergency Management Plan.

This plan will be reviewed on a regular basis in accordance with developments and changes at either the National or State level.

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May 2006

List of Abbreviations

AHDMPC	Australian Health Disasters Management Policy Committee
AMPPI	Australian Management Plan for Pandemic Influenza
AQIS	Australian Quarantine Inspection Services
CAIC	Community Assessment and Information Centre
CDNA	Communicable Diseases Network of Australia
CDPU	Communicable Diseases Prevention Unit
CHO	Chief Health Officer
CMO	Chief Medical Officer
DEM	Department of Emergency Medicine
DHHS	Department of Health and Human Services
DHA	Commonwealth Department of Health and Ageing
DPIWE	Department of Primary Industries, Water and Environment
ECC	Emergency Coordination Centre
ED	Emergency Department
EOC	Emergency Operations Centre
GP	General Practitioner
HCW	Health Care Worker
NIPAC	National Influenza Pandemic Action Committee
NMS	National Medical Stockpile
PEHS	Public and Environmental Health Service
PHLN	Australian Public Health Laboratory Network
PPE	Personal Protective Equipment
RHH	Royal Hobart Hospital
SES	State Emergency Services
THAPPI	Tasmanian Health Action Plan For Pandemic Influenza
TGPD	Tasmanian General Practice Divisions
VIDRL	Victorian Infectious Diseases Reference Laboratory
WHO	World Health Organisation

Introduction

AIM

The aim of this plan is to outline the manner in which the Department of Health and Human Services (DHHS) will manage a State-level, coordinated response to a pandemic of influenza.

SCOPE

Health authorities in Tasmania manage infectious disease outbreaks as part of normal activity, but on a scale and frequency that is normally within existing resources. In the event of a pandemic, existing resources will invariably be stretched beyond their normal response capacity. It will therefore be necessary to adopt practices and procedures that enable a staged level of response and management commensurate with the level of threat to the community and health priorities. This plan provides the framework for such a response, and focuses primarily on the health sector.

This Tasmanian influenza pandemic planning guide is intended to help anticipate, prepare and respond to the effects of the next pandemic. Every influenza season should be viewed as an opportunity to refine this planning.

The Australian Management Plan for Pandemic Influenza (AMPPI) identifies a number of key areas that need to be addressed by States and Territories when preparing their individual influenza pandemic plans. Each of the broad areas identified in the Australian action plan, and specific issues relating to each area, have been addressed during the development of this plan.

Since pandemics are global events, this plan is consistent with both the World Health Organization's Influenza Pandemic Preparedness Plan and AMPPI, but focuses on provincial pandemic influenza planning and does not detail federal responsibilities. However, the Australian Government is a key player in the pandemic planning process, guided by the National Influenza Pandemic Action Committee (NIPAC).

In Tasmania there is also a framework that places the pandemic planning response within a broader approach to major epidemics, the Tasmanian "Major Epidemics Management Plan" (MEMP). THAPPI is in effect a more detailed sub plan of MEMP, which in turn forms part of the infrastructure of the DHHS Emergency Management Plan.

The interrelationship of these documents and planning processes is further outlined in following sections.

GOVERNANCE

Authority for announcement: Pandemic influenza may constitute a public health emergency within the Tasmanian community. Authority to declare that a public health emergency exists is vested with the Director of Public Health through section 14 of the *Public Health Act, 1997*. The Director makes such a declaration if there is evidence that the situation warrants it, and it is not practicable for a declaration of a State of Disaster under the *Emergency Services Act 1976*. An emergency declaration comes into force on the date on which it is made and continues for a period, not exceeding two days, specified in the declaration, or for any further period as provided for under subsection (2) of Section 15 of the Act. The Director may extend the period of an emergency declaration by a period, or periods, not exceeding two days.

Consultation: Prior to any public declaration that an event of such magnitude sufficient to declare a public health emergency exists, the Director of Public Health may consult with the following:

- Secretary, DHHS.
- Director of Emergency Services (Commissioner of Police).
- Minister for Health and Human Services.
- Chief Health Officer (Chair of State Health and Human Services Emergency Committee).
- Commonwealth Chief Medical Officer
- Interstate colleagues, either through the Communicable Diseases Network of Australia, or through direct consultation.
- Regional Medical Coordinators.

Relationship to declared States of Alert, Emergency or Disaster: The Tasmanian *Emergency Services Act 1976* provides for the declaration of a State of Alert, Emergency or Disaster. Depending on the extent of the pandemic a related formal declaration by either the Director of Emergency Services (State of Alert), the Minister for Police and Public Safety (State of Emergency) or the Governor (State of Disaster) may be necessary. The timing of a declaration in relation to pandemic emergence in Australia will depend on a range of circumstances, but it may be required early in the containment phase. It is likely that a whole of government policy approach would be sought early in the course of a pandemic, but it is difficult to predict the timing of Alert, Emergency and Disaster declarations.

Appointment of DHHS Incident Controller for Pandemic Influenza:

Consistent with the DHHS Major Epidemics Management Plan, to provide single point leadership of the DHHS response to management of a health emergency, an Incident Controller will be appointed by the Secretary, DHHS. For pandemic influenza the Incident Controller would normally be the Director of Public Health.

The DHHS Incident Controller or delegate is to work closely with the Chief Health Officer and respective Regional Medical Coordinators (the Director of Medical Services or other nominated senior officer at each of the three General Hospitals) to ensure high level coordination of medical services, and appropriate linkage to

the Statewide Regional Disaster Planning Groups, of which the Regional Medical Coordinators are members.

The DHHS Incident Controller has overall responsibility for the following strategic tasks:

- Management of the State level medical/public health response to the pandemic.
- Coordination of health assets and support resources.
- Provision of specialist advice to Government.

Appointment of the DHHS Incident Control Team: Supporting the DHHS Incident Controller will be a DHHS Incident Control Team which will be appointed by the Secretary DHHS. Composition of the Incident Control Team will vary dependent on the specific nature of the event, but in the event of an epidemic will normally include the:

- Director of Public Health (Incident Controller);
- Chief Health Officer;
- Director - Acute Health Services;
- Southern Regional Medical Coordinator;
- Northern Regional Medical Coordinator;
- North West Regional Medical Coordinator;
- State Manager - Aged, Rural and Community Health;
- State Community Recovery Coordinator;
- Coordinator - Emergency Management;
- Manager - Media Unit;
- Private hospital CEO/s or representative/s;
- Tasmanian General Practice Divisions representative; and
- Liaison officers from key support agencies.

OBJECTIVES

The objectives of the Tasmanian Health Action Plan for Pandemic Influenza (THAPPI) are aligned with those of the Tasmanian Major Epidemics Management Plan (MEMP) and AMPPI. These are:

A State level, coordinated approach: Management of any large scale health emergency in Tasmania will require a State level approach to initial response, event management, resource use, ongoing community protection and eventual community recovery. Pre event planning, response and ongoing management will be carried out within the context of utilising all available health resources, supported by a coordinated State level approach to management of the event. DHHS remains the lead agency for emergency health sector response within an emergency management framework overseen by the Director of Emergency Services (Commissioner of Police).

Maximum protection for the Tasmanian community, health care workers and other essential services: The potential effects of a pandemic of influenza are likely to be costly both in terms of impacts on health (including potential loss of human life) and damage to the economic infrastructure of Tasmania. Any response by DHHS to a potential or confirmed pandemic will seek to maximise protection for the Tasmanian community, including health care workers and other essential services. Dependent on the scale and nature of the event, this may entail the enforcement of statutory authority granted to the Director of Public Health through provisions of the *Public Health Act 1997* (Division 2 - Emergency Powers) in order to ensure that development or spread of the influenza virus is minimised and that the effects of the threat are contained where possible (unless it is practicable for a declaration of a State of Alert, Emergency or Disaster to be declared under the *Emergency Services Act 1976*, in which case the Commissioner of Police, as Director of Emergency Services, is granted statutory authority). Prioritisation of limited resources, classification of affected persons and restriction on movement including the use of appropriate security personnel are other measures that may also be necessary to ensure protection and public safety.

Coordination of the effective use of limited resources: Health resources of all types will be severely stretched during a pandemic and multiple states and territories are likely to be affected. Prioritisation of all health resources in Tasmania within the context of this plan will be on the advice of the nominated DHHS Incident Controller. Authority to prioritise health resource use is vested with the Director of Public Health through Section 16 of the *Public Health Act 1997*. After making an emergency declaration, the Director may take any action or give any directions to reduce, remove or destroy any threat to public health.

Continuity management of critical health facilities: Notwithstanding the effects of a pandemic on the Tasmanian community, there will remain the need for continuity management, where possible, of critical health services to other members of the public in need of health care. In order to protect the essential elements of the public hospital infrastructure, this plan provides for close integration with other public health facilities (such as community health centres)

and the private hospital sector, to the extent that these facilities become essential to response and treatment as the event develops.

An informed community: A pandemic of influenza within the Tasmanian community will give rise to fear and uncertainty as to the nature of the threat, the range of potential effects, and the ability of authorities to respond. To minimise the natural concerns of the community, and to avert the spread of incorrect information, DHHS will implement, as soon as possible, and in conjunction with the Director of Emergency Services (Commissioner of Police), an information program to provide both protective and associated information to the affected community. This information will be provided on a regular basis, through appropriate and publicly recognised health professionals, using all available public information media. The DHHS Communications Strategy supporting this dissemination of information is to be issued.

Recovery of the affected community: Community recovery from the effects of a pandemic will follow the model contained in the Tasmanian Emergency Management Plan (TEMP) and the State Community Recovery Plan. Specific issues to be considered following an event of this type include confirmation that any threat to the community has been contained, how aspects of economic recovery will be progressed, and longer term counselling associated with loss of life. Although a fundamental principle of community recovery is to have rehabilitation driven from within the affected community, and at Local Government level, the nature of a widespread pandemic is such that a strategic and state wide focus will be necessary in a number of areas.

Additional objectives of the plan include identifying the planning and preparedness activities that would reduce the impact of an influenza pandemic in Tasmania, including:

- A surveillance system that is able to detect and monitor spread of influenza-like illness;
- Timely implementation of activities in the various phases of a pandemic;
- Early containment through disease control measures;
- Limitation of morbidity and mortality;
- Maintenance of essential services; and
- Provision of timely, accurate information about the pandemic to the public, health care workers, the media and other service providers.

RELATIONSHIP TO OTHER PLANNING DOCUMENTS AND PROCESSES

[Australian Management Plan for Pandemic Influenza \(AMPPI\) - June 2005:](#)

The Department of Health and Ageing (DHA) has developed the AMPPI to build national preparedness and capacity for immediate and effective response to any pandemic alert. The AMPPI provides guidance to DHHS to facilitate Tasmania's preparedness to respond to a pandemic threat.

[Tasmanian Emergency Management Plan \(TEMP\) - September 2005:](#) The TEMP provides the State level planning framework for emergency management in Tasmania. The TEMP is maintained by the Tasmanian State Emergency Service (SES).

[DHHS Emergency Management Protocols \(EMP\) - June 2003:](#) The DHHS EMP act as a whole of Agency supporting document to the TEMP and outline how DHHS will meet the various responsibilities allocated to it under the TEMP as either a Lead or Support Agency.

[DHHS Major Epidemics Management Plan \(MEMP\) - August 2005:](#) The DHHS MEMP outlines the management and response framework that the Department will use to respond to a major epidemic or related biological incident in Tasmania.

DHHS Public Health Emergency Management Plan (PHEMP): The DHHS PHEMP provides a broad framework for a coordinated response by the Public and Environmental Health Service (PEHS) to a range of public health emergencies. The PHEMP is in turn supported by a series of sub-plans with more detailed information about roles and responsibilities of staff and specific actions to be taken in response to certain situations, eg: radiation incident.

Public Hospital Code Brown Response Plans: Tasmanian Public Hospitals maintain a number of emergency response plans, coded in accordance with *Australian Standard 4083-1997*. *Code Brown* is the External Emergency Plan and will be activated at public hospital sites in the event of an external health emergency. *Code Brown* activation is hospital site specific, but links with this plan in that it represents the immediate hospital response to an influx of large scale patient numbers. *Code Brown* also provides for external private hospital support to augment public hospital facilities. *Code Yellow* is the Internal Emergency Plan for hospital response to a biological threat, the purpose of which is to keep large numbers of people who could potentially be infected away from the hospital.

This plan provides the linkage from hospital specific *Code Brown* planning to whole of State coordination, and specifically follows on with the essential support provided to public hospitals by the private sector.

[Tasmanian Ambulance Service \(TAS\) Multiple Casualty Incident Plan:](#)

The Multiple Casualty Incident Plan is a flexible management system designed to assist the TAS deal with situations where the number of casualties in an incident are greater than the Service's immediately available capacity to deal with them,

using a normal operational approach, and whilst still maintaining minimum essential coverage.

Protection against biological contamination: It should be recognised that existing hospital *Code Brown* arrangements are based on situations where resources are activated and concentrated to respond to emergency events, with the point of focus usually centred on a hospital Emergency Department. A biological threat requires specific cautions to be exercised when receiving, assessing and treating patients no matter where the treatment site. As such, public hospitals are to develop specific protocols to manage the treatment of patients who may present with biological contamination. Such protocols are to provide for employment of appropriately trained and equipped staff, the protection of hospital staff and patients, and maintenance of the integrity of the hospital precinct.

RELATED DOCUMENTS / WEB LINKS

[Tasmanian Major Epidemics Management Plan](#)

[Tasmanian General Practice Divisions Emergency Management Plan \(currently being developed\)](#)

[Australian Management Plan for Pandemic Influenza](#)

[Preparing for an Influenza Pandemic - A Practical Guide for Medical Practitioners](#)

[Preparing for an Influenza Pandemic - Practical Information for Health Care Workers](#)

[Department of Health and Ageing 'Prepared and Protected' Resources \(Including Fact Sheets\)](#)

[Pandemic Influenza Frequently Asked Questions](#)

[Pandemic Influenza - the Australian Response](#)

[World Health Organisation Pandemic Preparedness](#)

Pandemic Influenza – The Tasmanian Context

Planning and preparedness are essential to minimise the effect of pandemic influenza on the Tasmanian community. The THAPPI is a health-related plan. A national whole of government plan is currently under development. A State whole of government action plan is to be developed. This section outlines planning considerations and preparedness that has occurred for pandemic influenza that is relevant to the state of Tasmania and briefly describes planning at the local and national levels.

LIKELY IMPACT OF PANDEMIC INFLUENZA IN TASMANIA

Influenza pandemics have commonly been associated with attack rates of 25–30 per cent of the population. However attack rates of up to 70 per cent have occurred in some communities. Mortality, hospitalisations and staff absenteeism rates have increased substantially during pandemics. In the 1957 influenza pandemic in the United Kingdom (UK), the recorded staff absentee rates in some organisations were between 5 and 30 per cent. Significant economic and social impacts are also predicted.

ESTIMATES OF MORBIDITY AND MORTALITY IN TASMANIA

Estimating the potential impacts of an influenza pandemic is difficult given that it is not possible to predict the virulence and infectivity of the particular strain involved, as well as the epidemiology of the specific strain and the rapidity and effectiveness of the response. In the absence of actual data on the specific strain, it is possible to model various pandemic scenarios given a series of pre-determined assumptions and limitations. However, if it is assumed a pandemic with an attack rate of 35% (i.e. 35% of the population affected) were to occur in Tasmania and there was no available treatment, over a 6–8 week period it could lead to:

270 – 727 additional deaths

722 – 2 426 hospitalisations for influenza and its complications

69 367 – 123 136 additional outpatient / GP visits.

*These estimates are based largely on the work of Meltzer *et al.*

PANDEMIC INFLUENZA PLANNING AT GLOBAL AND NATIONAL LEVELS

In May 2005, the WHO developed the *WHO Global Influenza Pandemic Plan – The role of the WHO and recommendations for national measures before and during pandemics*. The document outlined the roles and responsibilities of WHO and national health authorities and pandemic planning committees. It defined the preparedness levels and phases of an influenza pandemic, and the various actions that would be undertaken by WHO and other health authorities in these periods.

In June 2005 the DHA released the AMPPI. This document aims to provide a detailed guide for the Australian response to a pandemic influenza threat. The plan targets the wide range of people who will be involved in planning and responding to an influenza pandemic: health planners, public health and clinical care providers, border workers, Commonwealth, state and territory health departments, essential service providers and those involved in the media and communications.

The DHHS MEMP outlines the policies, procedures and emergency management arrangements for major epidemics and related biological incidents. The THAPPI is a sub-plan of the MEMP.

Additional emergency management arrangements will also be put in place by DHHS in the event of a pandemic to ensure that there is clarity about the command and control functions, that the management and control of the pandemic is maximally resourced, and there is adequate communication about the incident within DHHS and the government and with external agencies and the community.

The National Medical Stockpile (NMS) was established by the Australian Government in 2002, initially as a national strategic reserve of essential vaccines, antibiotics, antiviral drugs, chemical and radiological antidotes. The NMS supplements existing medical stocks kept in the Australian health system and provides rapid access to large quantities of medications that may not be regularly used.

The process to activate the NMS deployment plan is through an approach by DHHS to DoHA, under arrangements established by a Memorandum of Understanding (currently in draft form). Tasmania has developed a distribution plan, including details of security measures and arrangements for dispensing.

DHHS emergency response arrangements relating to management and distribution of NMS items will be put into place according to the scale/severity of the pandemic.

At the start of a pandemic within the state, Tasmania will provide protection to the community whilst protecting limited hospital-based assets by adopting a "Community Assessment and Information Centre (CAIC)" model for the management of patients. Detailed plans of the CAICs are in the MEMP. Suspected cases will be referred to pre-determined CAICs which will be established within venues such as community halls or other non-hospital sites. Functions of the CAICs may include:

- Triage (to home, to a designated hospital, or to another location nominated by the Department).
- Immunisation (when available), and
- Providing prophylaxis or treatment with antivirals (according to DHHS guidelines).

PANDEMIC INFLUENZA PLANNING FOR OTHER AGENCIES

DHHS has prepared this plan with the aim of ensuring a coordinated, whole of State approach to pandemic management. To support this, individual agencies (including government agencies and essential services) are responsible for ensuring that their own business continuity plans make provision for maintaining high priority activities and infrastructure in the face of predicted increased absentee rates associated with pandemic influenza.

Health care providers (including hospitals) need to ensure that they have contingency plans to deal with an influenza pandemic. Local government should also undertake influenza pandemic planning, as should a range of non-government organisations and major institutions

A whole-of-government approach to issues such as continuity of essential services is currently under consideration at the National level, and processes have also begun in Tasmania to address these broader aspects, that are likely to lead to more comprehensive planning documents during 2006.

REVIEW OF THE PLAN

Considerable work is currently being undertaken by the Australian and state/territory governments and stakeholders to prepare for an influenza pandemic. Accordingly, the THAPPI is a living document, which will be reviewed by the Department of Health and Human Services as the situation changes, and in December 2006.

TRAINING AND TESTING OF THE PLAN

To maximise effectiveness of the plan, staff will require adequate training and the plan will require regular testing.

SURGE CAPACITY AND BUSINESS CONTINUITY

All agencies potentially affected by pandemic influenza should consider their surge capacity/business continuity needs and plan accordingly. Staffing issues associated with pandemic influenza include the following:

- Existing levels of technical and administrative staff will be decreased by the increased staff absenteeism associated with an influenza pandemic
- There will be a demand for additional staff to be involved in the investigation and control functions of an influenza pandemic
- Staff will be needed to backfill positions/programs vacated by staff who are involved in the response to the pandemic.

To augment the DHHS management of a pandemic, trained staff will be seconded to the incident investigation and Incident Control Team from other programs within the DHHS.

WORKFORCE ISSUES

All agencies may be affected by staff absence because of illness or isolation of suspected cases, the need to take time off to care for others, or fear of contracting pandemic influenza. This will occur at a time when, for some agencies, the workload may be greater than normal.

The following briefly summarises some key issues that agencies should consider:

- Establishing minimal staffing levels
- Temporary discontinuation of less critical service delivery areas
- The need for staff to work in areas they are not formally trained in
- Utilising volunteers, retired or trainee staff
- Accommodation for staff in between shifts, when transport home may be disrupted or not advised
- Staff immunisation policy (for normal seasonal influenza and pneumococcal vaccine)
- Stockpiling of personal protective equipment (PPE) and antiviral medication
- Psychological support for staff.

Particular issues for staff with occupational exposures to pandemic influenza and other essential workers who may be provided with antivirals and PPE include:

- Monitoring of staff for illness and adverse reactions to antiviral medications
- Implementing six week rotations of staff on antivirals
- Recorded dosing of antivirals.

Primary Health Care: Primary Health Care Facilities will logically be at the front line of many epidemics in terms of reporting cases, assessment, treatment and recovery. It must be recognised that by virtue of their normal role in health care, primary carers are vulnerable to developing infectious diseases, particularly those involving spread via respiratory secretions. Furthermore, as a resource, primary care capability is as vital to protect as public and private hospital infrastructure.

General Practitioners: The number of new general practice consultations due to increased caseload generated by a public health disaster will depend on the nature and extent of the pathogen. In Tasmania, there are approximately 531 general practitioners (GPs) and 365 medical specialists. The GP workforce is a self-governing and autonomous group of health care providers and is not state or federally employed. However, provision of personal protective equipment (PPE) and prophylactic antivirals by government will be necessary to ensure continuity of primary care services. GPs may apply to the Minister for Health and Human Services for reasonable compensation for services rendered, equipment and facilities provided, and any loss or damage suffered as a result of direction of the Director of Public Health under the emergency provisions of Section 18 of the *Public Health Act 1997*. Compensation is payable at an amount that the Minister considers appropriate.

GPs will also provide an important resource to augment the operation of CAICs and will be requested to assist DHHS staff in the assessment and triage of potentially infected patients. CAICs will be located separately from hospitals and (in some cases) from GP practices in order to reduce risks of transmission of infection to staff and others. This would allow for safe clinical assessment of the many people who may present with either related or unrelated symptoms during a major epidemic, and thereby prevent overload of GPs and the hospital emergency department system.

Tasmanian General Practice Divisions: The role of the Tasmanian General Practice Divisions is to provide education and practice support to GPs. The DHHS has engaged with the Divisions with the aim of increasing GP awareness of pandemic planning and in particular their involvement of supporting the operation of CAICs. GPs also provide an invaluable resource for the communication of essential health information during an emergency event. Divisions of General Practice have the capacity to play a key role in informing and mobilising the General Practice workforce via their Division Emergency Management Plans.

DEBRIEF AND POSTPANDEMIC FOLLOWUP

DHHS, through its Coordinator Emergency Management, will facilitate a formal debrief of the Department's response to a pandemic. The debrief will include senior Departmental staff involved in management of the event, and key stakeholders from external organisations with which the Department operates. The debrief will highlight issues that require planning follow up, and which should be addressed to ensure that future response is improved.

Background

DISEASE DESCRIPTION

Influenza is an acute respiratory disease caused principally by influenza type A or B viruses. Symptoms usually include fever, cough, lethargy, headache, muscle pain and sore throat. Infections in children, particularly type B and A (H1N1) may also be associated with gastrointestinal symptoms such as nausea, vomiting and diarrhoea. Clinical features in babies and children may result in fever alone, fever and cough, croup, poor feeding or features suggestive of meningitis. One of the earliest indicators of the influenza pandemics in Melbourne in 1957 and 1968 was an increased prevalence of croup.

The incubation period for influenza virus is one to seven days, usually two to three days. Adults have been shown to shed the influenza virus from 1 day before developing symptoms to up to seven days after the onset of the illness. Young children can shed the influenza virus for longer – up to 21 days. Generally, shedding peaks early in the illness, typically within a day of symptom onset. Most symptoms resolve within two to seven days although the cough may persist longer.

Complications of influenza include middle ear infection, primary viral pneumonia, secondary bacterial pneumonia, a range of rare non-pulmonary complications, and exacerbations of underlying chronic health conditions. Reye's Syndrome is a rare complication of influenza involving CNS disturbance, coma and death in 10–40% of affected persons. It is associated with infections in children, infections with H1N1 strains and with the use of aspirin or other salicylates to treat influenza symptoms. Aspirin and other salicylates should not be given to children under 12 with fever due to influenza or an influenza-like illness.

TRANSMISSION

Transmission of human influenza virus is mainly by droplet transmission. This occurs when droplets from the cough or sneeze of an infected person are propelled through the air (generally up to three feet) and land on the mouth, nose or eye of a nearby person.

Influenza can also be spread by contact transmission. This occurs when a person touches respiratory droplets that are either on another person or an object and then touches their own mouth, nose or eyes (or someone else's mouth, nose or eyes) before washing their hands. The influenza virus remains infectious in respiratory secretions for hours, and potentially remains infectious on hard surfaces for one to two days - viability being facilitated by low relative humidity.

In some situations, airborne transmission may result from procedures that produce very fine droplets (called fine droplet nuclei) that are released into the air and breathed in. These procedures include:

- Intubation

- Taking respiratory samples
- Performing suctioning

To help protect oneself (e.g. health care workers, poultry cullers etc) wear a full gown (or coveralls), gloves, eye shield and P2 rated mask. To minimise the risk of infecting others, infected persons should wear an appropriate mask. Detailed information on infection control can be found in Appendix: Infection Control.

INFECTIOUS AGENTS

Three types of influenza are recognised, types A, B, and C, although most human infections involve either type A or B. Type C, causes a common cold-like syndrome. Influenza viruses are named according to type, sub-type and antigenic characterisation. Only Type A viruses are sub-typed. Influenza A is the more important epidemiologically and is responsible for pandemics.

Within influenza A there are:

- 15 distinct forms of hemagglutinin (HA) designated as H1-H15
- 9 distinct forms of neuraminidase (NA) designated as N1-N9

HA and NA are viral surface proteins (referred to as antigens) recognised by the body's immune system and are involved in viral replication:

- HA is responsible for attachment to cell receptors following which infection occurs and then virus replication
- NA digests the cell receptor allowing the newly synthesised virus to escape from the cell surface.

There may often be more than one type/strain of influenza circulating; however, one strain will usually predominate in a given season/location.

EMERGENCE OF NEW STRAINS AND SUBTYPES

Influenza viruses undergo two types of antigenic change, these being antigenic drift and antigenic shift.

Epidemics (antigenic drift): Antigenic drift refers to small antigenic changes in the HA and NA surface antigens due to the high rate of mutation in the virus ribonucleic acid (RNA). This is an ongoing process, which results in new epidemic strains of influenza A and B virus. These minor antigenic changes often result in localised outbreaks or regional epidemics. Epidemics of influenza usually occur between late autumn and early spring and last for up to two months in individual regions but may also occur progressively across the country. Populations with high susceptibility to epidemic strains of influenza include the elderly, the chronically ill and children.

Pandemics (antigenic shift): Antigenic shift refers to major change in the HA and NA surface antigens of influenza A, resulting in the evolution of pandemic strains. This may involve the process of genetic re-assortment between human and avian influenza viruses possibly taking place in animal populations. These events occur at widely spaced intervals of many decades. The majority of the pandemics of the 20th Century seem to have arisen in Southern China.

Novel influenza A strains arising through antigenic shift are usually associated with pandemics i.e. rapid worldwide spread and a high incidence of infection and disease. However the H3N2 strain arising in 1968 was an exception to this, the mildness of this pandemic, is thought to result, in part, from protection against severe disease conferred by the pandemic of 1957. If the human population has not been exposed to the new subtype, or has not been exposed to a similar subtype for many years, it will be highly susceptible. Current and past vaccines do not afford protection against new strains, as they do not stimulate cross reactivity by the immune system.

An influenza pandemic is defined as:

- An antigenic shift resulting in a new type of influenza A virus in the human population;
- A high proportion of the population susceptible to the new virus;
- The new virus is capable of transmission from person to person and infecting a high proportion of exposed individuals; and
- A new virus spreading rapidly and causing disease.

Pandemics, as opposed to epidemics, occur globally at unpredictable intervals, are trans-seasonal, and can last for up to two to three years. During the 20th Century there were three recognised influenza pandemics (Spanish Influenza 1918–1919; Asian Influenza 1957–58; and Hong Kong Influenza 1968). All three pandemics were associated with increased mortality rates in Australia.

The influenza pandemic of 1918–1919 was unprecedented in terms of loss of human life. The illness was notorious for its rapid onset and progression to respiratory failure and death, and it is estimated that between 20 and 40 million people died worldwide, with the highest numbers of deaths among those aged 20 and 40 years. By the end of 1919, 11,500 people in Australia had died of influenza, with 60% of deaths in people aged 20 to 45 years. In these same age groups the male rates were 1.5 to 2-fold higher than in females.


The Asian influenza of 1957 – 1958 had infection rates reported to range between 20 % to 70%, but case fatality rates were low, ranging from 1 in 2000 to 1 in 10 000 infections. In Australia mortality rates were two to five-fold greater than in non-pandemic years. Age-specific mortality rates showed that those aged over 65 years were most affected.

The Hong Kong influenza of 1968 had mortality rates similar in magnitude to those caused by the Asian influenza. Age-specific mortality rates were highest for those over the age of 65 years. Infection rates were around 25% to 30%. The differences in past pandemics show the need for flexible contingency plans capable of responding efficiently to a pandemic threat.

Tasmanian response to WHO levels of alert for pandemic influenza

PANDEMIC MANAGEMENT PHASES

The WHO defines various pandemic phases, these being the Inter-Pandemic Period, the Pandemic Alert Period, the Pandemic Period and the Post-Pandemic Period. Australia, under the AMPPI, also has classified phases consistent with the WHO, to guide response actions and national pandemic management.

Period	WHO Global Phase	AMPPI Australian Phase	Description of Phase	Main strategy
Inter-pandemic		Aus 0	No circulating animal influenza subtypes in Australia that have caused human disease.	
	1	Overseas 1	Animal infection overseas: the risk of human infection or disease is considered low.	
		Aus 1	Animal infection in Australia: the risk of human infection or disease is considered low.	
	2	Overseas 2	Animal infection overseas: substantial risk of human disease.	
		Aus 2	Animal infection in Australia: substantial risk of human disease.	
	Pandemic alert	3	Overseas 3	
Aus 3			Human infection in Australia with new subtype(s) but no human-to-human spread or at most rare instances of spread to a close contact	
4		Overseas 4	Human infection in overseas: small cluster(s), limited human-to-human transmission, spread highly localised, suggesting the virus is not well adapted to humans.	
		Aus 4	Human infection in Australia: small cluster(s), limited human-to-human transmission, spread highly localised, suggesting the virus is not well adapted to humans.	
5		Overseas 5	Human infection in overseas: larger cluster(s) but human-to-human transmission still localised, suggesting the virus is becoming increasingly better adapted to humans, but may not yet be fully adapted (substantial pandemic risk).	
		Aus 5	Human infection in Australia: larger cluster(s) but human-to-human transmission still localised, suggesting the virus is becoming increasingly better adapted to humans, but may not yet be fully adapted (substantial pandemic risk).	
Pandemic	6	Overseas 6	Pandemic overseas- not in Australia: increased and sustained transmission in general population.	
		Aus 6a	Pandemic in Australia: localised (one area of country)	
		Aus 6b	Pandemic in Australia: widespread	
		Aus 6c	Pandemic in Australia: subsided	
		Aus 6d	Pandemic in Australia: next wave	

The Director-General of the WHO will make the determination of global phases, including up scaling and downscaling. The Australian Chief Medical Officer will designate the Australian phases with advice from an expert advisory group. Tasmania will take guidance from the DHA, as well as determining its own phases, by direction of the Chief Medical Officer.

Tasmanian Pandemic Management Stages: The Tasmanian response framework for a pandemic comprises four stages which are aligned to the phases contained in the AMPPI. Within the Tasmanian context, transition from one stage to the next will be on the authority of the DHHS Incident Controller. Progression between stages is designed to provide a graduated response to a developing threat, and provides for support by all available resources, should the need arise.

The stages of the framework are as follows:

Stage 1: The period during which a potential pandemic threat is identified. Formal activation of this stage will be based on consideration of likely developments internationally, nationally or within Tasmania that would warrant preparatory action over and above normal monitoring.

Stage 2: This stage confirms the presence of a pandemic in the Tasmanian community, the effects of which are becoming apparent. During this stage, response and management of the event is primarily confined to quarantine and associated public health containment strategies, existing primary care and public hospital facilities, and the establishment of CAICs. Continuity management of existing services is maintained where practicable.

Stage 3: This stage represents activation of whole of State health resources in direct response to the event. The capacity of major public hospital resources to maintain critical services is protected by decanting patients to dedicated private hospital facilities in general proximity to the State's general public hospitals and to rural hospital facilities as appropriate. This will require assessment by the DHHS Incident Controller and the Director of Acute Health Services as to which hospital site will deal with particular patient types, based on the severity and scale of the emergency event and extant capacity.

Stage 4: The community recovery process commences immediately a pandemic is declared, but with significant focus and resources being applied at the conclusion of Stage 3. Management of Stage 4 will require close liaison with the DHHS Incident Control Team and other key groups in order to establish special requirements that may be needed to prevent the event recurring.

ROLES AND FUNCTIONS OF DHHS STAFF

Management of a health emergency in Tasmania and the relationship between stages, event development and coordination is shown in Figure 3 of the MEMP.

Consistent with the MEMP, the roles and tasks of the DHHS are as follows:

Director of Public Health.

Role:

- To protect the health of Tasmanians through the prevention and control of the spread of disease.

Tasks: As outlined in the *Public Health Act 1997*, these may include:

- Declare that a public health emergency exists, if satisfied that the situation requires it, and it is not practicable for a declaration under the *Emergency Services Act 1976* to be made.
- Outline the nature of the public health emergency, any area to which the declaration relates, and the period during which the declaration is in force.
- Take any actions necessary or give any directions needed to:
 - Reduce, remove or destroy any threat to public health;
 - Segregate or isolate persons in any area;
 - Evacuate any persons from any area;
 - Prevent or permit access to any area; and
 - Control the movement of any vehicle.
- Give any one or more of the following directions:
 - That any specified person undergoes a medical examination.
 - That any specified person moves to, or stays in, a specified area.
 - That any substance or thing be destroyed.
 - That any other action be taken that is considered necessary.
- After an emergency declaration ceases to be in force, submit to the Minister for Health and Human Services a report containing full details of the events resulting in the making of the declaration, and any action taken or directions given, to respond to the public health threat.

In addition, the Director of Public Health has a role as Chief Quarantine Officer (Human Health) under the national *Quarantine Act 1908*, which provides additional powers regarding quarantine measures for prescribed diseases.

Public and Environmental Health Service.

Role:

- To carry out surveillance, data collection and analysis, and identify and implement control measures to prevent the spread of disease.

Tasks:

- Provide support to the Director of Public Health in implementing the provisions of the *Public Health Act 1997* and other relevant legislation.
- Coordinate or conduct necessary contact tracing and monitor home quarantine activities.
- Conduct surveillance necessary to track case numbers, and morbidity and mortality associated with the causative agent.
- Conduct environmental health risk assessments as appropriate.
- Provide ongoing, timely information to health care providers, emergency services, government authorities and members of the public.
- Coordinate distribution of public health resources for disease control as appropriate, particularly in relation to PPE, vaccines and pharmaceuticals.
- Mobilise and coordinate activities of health care providers as required.

Chief Health Officer.

Role:

- To ensure coordination of clinical resources in the management of an epidemic.

Tasks:

- Coordination of medical, nursing and allied health resources.
- Liaison with other jurisdictions' Chief Health Officers.
- Liaison with the Minister for Health and Human Services and the preparation of Ministerial/Cabinet Briefings.
- Liaison with the Principal Nurse Advisor and the Senior Allied Health Advisor

Director - Acute Health Services.

Role:

- To oversee the operational management of public hospital facilities.

Tasks:

- Direct public hospital response in the event of a health emergency.
- Maintain regular liaison with public hospital Emergency Coordination Centres (ECC), located within each major hospital.

- Ensure that, where possible, the full range of pre-emergency event public hospital services is provided to the community. Should this not be possible, determine the priority of services that will be maintained.
- Provide specialist advice and support to Regional Medical Coordinators and the DHHS Incident Controller in the event of a health emergency.

DHHS Media Unit.

Role:

- Manage the production, authorisation and release of information to the media.

Tasks:

- Ensure communications plan is activated.
- Liaise with the Director Public Health, the Chief Medical Officer, the Government Communications Office, the Minister, media managers from other Agencies and the National Emergency Media Response Network.
- Develop and release public information relating to the health emergency, and ensure that such information is released in a coordinated and authorised manner.
- Provide specialist communications advice and support to the DHHS Incident Controller and other Agency staff who may have dealings with the media.

DHHS Communications and Media Advisor

Role:

- Coordinate implementation of the DHHS Pandemic Influenza Communication Strategy.

Tasks:

- Liaise closely with the Director Public Health, the Public and Environmental Health Service, the DHHS Media Unit, the DHHS Marketing and Communications Branch and Communications Managers interstate.
- Implement a marketing strategy re how individuals can protect themselves and what they should do if they become ill
- Support communication between key stakeholders involved in the emergency response
- Ensure information is updated regularly on the DHHS website.

DHHS Emergency Operations Centre (EOC).

Details relating to establishment and operation of a DHHS EOC are contained in the DHHS EMP.

Should it be deemed necessary to activate a DHHS EOC to support this plan, its primary function in the event of a pandemic is to provide a central location from

which DHHS will coordinate daily management of health and community recovery aspects of the event.

Liaison with Australian Government and other States and Territories.

In the event of a pandemic, formal liaison with the Australian Government and other States and Territories is to be managed through the DHHS EOC – or, if a declaration of Emergency or State of Disaster are declared and the State Emergency Operations Centre is activated, then this is likely to become the avenue for formal liaison regarding whole-of-government issues. Notwithstanding this, other DHHS staff will continue to liaise through existing channels such as the Communicable Diseases Network of Australia (CDNA) and the Australian Health Disasters Management Policy Committee (AHDMP). Formal communication relating to the event is to be approved by the DHHS Incident Controller, and both the Secretary and Minister are to be regularly briefed on interstate liaison issues.

RESPONSE AT DIFFERENT PANDEMIC PHASES

Phase: Australia 0 – Interpandemic period

- **No circulating animal influenza subtypes in Australia that have caused human disease**
- **Goal: preparedness**

- Maintain the THAPPI
- Maintain DHHS representation on NIPAC, CDNA, the Public Health Laboratory Network (PHLN) and AHDMPC.
- Attain high coverage of influenza and pneumococcal immunisation in identified high-risk groups using current vaccines
- Identify supplies of antivirals and protocols for their distribution.
- Maintain a nationally consistent case definition of influenza-like illness, and consistent surveillance methods
- Develop surveillance for influenza within Tasmania
- Develop laboratory capacity for influenza surveillance
- Facilitate planning arrangements for community support and recovery
- Work with local government authorities to assist with influenza pandemic planning
- Work with health care facilities and other stakeholders in the health care system to assist with influenza pandemic planning
- Create or update existing emergency and disaster plan to include contingencies for an influenza pandemic including business continuity issues.
- Attain high immunisation coverage of health care staff according to the National Immunisation Guidelines, particularly for influenza and pneumococcal disease.
- Ongoing education of staff about infection control protocols.
- Ongoing training of staff in surveillance, operation of EOC and conducting exercises in all aspects of emergency response.
- Ensure DHHS has appropriate stocks of masks, eye protection, gloves, gowns and antivirals and that staff are trained in their use.
- Notification of laboratory confirmed influenza to DHHS.
- Provide education on influenza to the general community, its complications and requirements of personal protective measures.
- Advise on antiviral prophylaxis to patients and staff during outbreaks of seasonal influenza in aged care facilities.
- Make provisions for business continuity in face of increased absenteeism and demand on services.

Phase: Overseas 1 and Overseas 2 – Animal infection overseas

- **No human or animal cases in Australia**
- **Goal: containment**

Response as per phase Australia 0 with the addition of the following:

Quarantine

- Upon entering Australia if a person fills out the Incoming Passenger Card and indicates that they have visited a rural area or been in contact with, or near, farm animals outside Australia in the past 30 days, an Australian Quarantine and Inspections Services (AQIS) officer will assess the situation and contact the Director of Public Health for advice if necessary.
- Any returning traveller who has had close contact with poultry, poultry farms, or poultry products (for example in food markets) in an affected area or with a confirmed human case, or a laboratory worker possibly exposed to avian influenza should be advised that if they develop symptoms of an influenza like illness they should inform their doctor of their symptoms and the fact that they had contact overseas so that they may be assessed, appropriately tested and isolated if necessary.

Surveillance

- Routine interpandemic surveillance with the addition of the following Department of Primary Industries, Water and Environment (DPIWE) response:
 - Provide advice on recommending changes to border security measures at airports for high risk countries (passengers and baggage checks for high risk items)
 - Provide advice on recommending that import quarantine protocols for live birds (few are permitted in) and poultry products be amended (AQIS responsibility)
 - Renewed communication with the poultry industry stressing the need for biosecurity on farms
 - Enhanced passive surveillance, including the investigation of unexplained morbidity/ mortality in commercial poultry flocks, pigs or horses – an example of this would be putting avian influenza on the differential diagnosis list for poultry disease outbreaks and taking diagnostic opportunities as they present to rule out highly pathogenic avian influenza as the cause of disease and mortality incidents in poultry.

Phase: Australia 1 and Australia 2– Animal infection in Australia

- **No confirmed human cases in Australia**
- **Goal: containment**

Response as per previous phases with the addition of the following:

Communication

- Liaise with DPIWE / DHA on suitable industry / public communication.
- Provide information to the public regarding the level of risk and simple measures to reduce the spread of influenza.

Animal Control

- As per Overseas Phase 1 with the addition of DPIWE activation of emergency animal disease response arrangements based on the relevant Australian Veterinary Emergency Plan (AUSVETPLAN).

(AUSVETPLAN is a series of technical response plans that describe the proposed Australian approach to an emergency animal disease incursion. There is an AUSVETPLAN disease strategy for Highly Pathogenic Avian Influenza.)

Human containment

- Poultry cullers
 - Appropriate PPE use
 - Education on infection control and staff health monitoring.
 - Antivirals to be given for at least five to ten days, depending on the agent used, after the last contact and vaccination with current vaccine (to prevent possible dual infection and reassortment).
- Hospitals
 - Asymptomatic person who had direct contact with a sick animal in an affected area to be provided with antivirals for five to ten days, depending on the agent used, after the last contact.
- General practice (for persons exposed to highly pathogenic influenza in animals)
 - Advise use of personal protective equipment, provide antiviral prophylaxis and immunise with seasonal influenza vaccine.
 - Provide advice on the disease, its symptoms and signs and proper personal hygiene.
 - Advise voluntary home quarantine until incubation period passed.
 - Advise self-monitoring for signs and symptoms of disease and reporting if ill.
 - If symptoms develop, assess as per probable case, in the person's home where possible.

- Asymptomatic person who had direct contact with a sick animal in an affected area require antivirals for at least five to ten days, depending on the agent used, after the last contact.
- Community Recovery
 - Provide support to individuals/communities quarantined/isolated in homes/institutions.

Phase: Overseas 3 – Human cases overseas

- **No transmission between humans or at most rare instances of spread to close contacts; No confirmed human cases in Australia**
- **Goal: containment**

Response as per previous phases with the addition of the following:

Investigation of suspected cases

- For any returned traveller with bird contact in avian influenza affected countries and who has developed flu like symptoms:
 - The person should be isolated, and nose and throat swabs collected for testing at the Victorian Infectious Diseases Reference Laboratory (VIDRL) in accordance with formal arrangements currently in place.
 - The examining medical practitioner should wear full PPE.
 - Updates for doctors will be provided on the DHHS website and alerts will also be distributed.

Surveillance

- Issue alerts to health care providers (to GPs, the Tasmanian General Practice Divisions (TGPD), private and public hospitals, laboratories, DHHS Regional providers, private medical specialists, community pharmacies, ambulance services) regarding the situation including information about the overseas situation, case definition, management of cases, infection control procedures, laboratory procedures and where to get further information.

Human containment

As part of maintaining vigilance, clinicians will need to look for:

- Fever and respiratory symptoms in:
 - Laboratory workers with exposure to avian influenza virus or novel influenza virus.
 - Returned travellers from countries with avian influenza, who have had contact with live poultry or recently killed poultry (such as in markets).
 - Returned travellers from countries with avian influenza, who have been in close contact with a person with unexplained respiratory illness that led to death.
 - Health care workers who have cared for patients suspected or confirmed to have avian influenza or novel influenza virus.
- Clusters of unexplained respiratory illness in:
 - Health workers.
 - Farm workers or others exposed to poultry or wild birds.
- If avian influenza is suspected the patient should be seen at home if possible and the clinician should wear PPE when assessing them.
- If the patient presents to hospital they should be given a mask on arrival and taken immediately to a separate room.

- All cases should be managed using appropriate infection control procedures.
- If possible, antiviral medication should be commenced within 48 hours of symptom onset in confirmed cases.
- All suspected cases should be reported immediately to DHHS.

Communication

- DHHS to issue alerts.
- Media statements as necessary.

Phase Australia 3 – Human cases in Australia

- **No human-to-human spread or at most rare instances of spread to a close contact.**
- **Goal: containment**

Response as per previous phases with the addition of the following:

Surveillance

- Liaise with CDNA on a daily basis.
- Review the case definition for influenza and the surveillance guidelines.
- Notification - the Communicable Diseases Prevention Unit of DHHS should be immediately notified of all suspected cases and confirmed cases, including cases detected as part of rumour surveillance.
- Improved case/cluster detection:
 - Case detection in general practice - All GPs should be advised to be alert for patients presenting with an illness consistent with the case definition, that is, an agreed symptom cluster and exposure history. GPs should adopt recommended infection control precautions related to a potential case;
 - Hospital case detection - All hospital staff should be advised to be alert for patients presenting with an illness consistent with the case definition, that is, an agreed symptom cluster and exposure history. Hospital staff, and in particular staff in the emergency department, should be aware of recommended infection control precautions related to a potential case;
 - Case detection of unexplained deaths - The Coroner and Hospitals will report deaths due to unexplained respiratory illness to the DHHS, consistent with the *Tasmanian Notifiable Diseases Guidelines*;
 - Case detection in other institutions – Through the appropriate whole of government mechanism under development DHHS will alert representatives from educational authorities (childcare, pre-school, primary, secondary and tertiary schools), prisons, police, emergency services, utilities (water/gas/electricity) and transport (bus/ taxi) to notify clusters of respiratory illness for further investigation. Similar alerts could be considered for other major employers.
- Rumour surveillance, which involves case finding by monitoring media reports. Media monitoring agencies provide daily summary reports of relevant publications and broadcasts to the DHHS Media Unit. Reports related to influenza or respiratory illness should be forwarded to the DHHS Communicable Diseases Prevention Unit for review and possible investigation. It would be expected that DHHS and the DHA would have an open dialogue regarding the veracity of media reports.
- Contact tracing - The contacts of all confirmed cases should be traced and put under surveillance. Contacts should remain in quarantine at home and provided with antivirals for five to ten days, depending on the agent used.
- DHA to coordinate a Health Alert (information leaflets and signage), advising returning travellers of the situation overseas. Returning passengers will also

be advised of symptoms and told to contact a doctor or hospital if they develop these symptoms up to two weeks after returning.

- Depending on the circumstances at the time, Tasmania may restrict entry points if it appears likely to reduce the risk of the disease entering. Quarantine facilities to supplement Australian Quarantine Inspection Services (AQIS) activities may be established if appropriate.
- Surveillance communication with DHA - The Communicable Diseases Prevention Unit will provide DHA with daily (or more frequently if required) updates of suspected and confirmed cases and influenza-related deaths. It is expected that DHA will communicate with WHO.
- All suspected cases should be isolated and if confirmed placed on antivirals and kept isolated until asymptomatic. Patients should be cared for at home if their clinical condition permits or in a single room with negative pressure if referred to hospital. Cases should be treated with antivirals for five days.
- Confirm arrangements for activating CAICs are in place.

Hospitals

- Suspected cases which cannot be assessed at home or who self-present to hospital will be assessed in a separate room (Negative Pressure Room (NPR) if available), observing infection control procedures. If patient requires inpatient care and a NPR is not available, the patient will be transferred to the nearest hospital where facilities are available. Similarly if the patient requires ICU care they should be managed in single room - a NPR if available).
- Admitted patients to be managed in NPR until pathogen is known.
- Decision to transfer to a designated metropolitan or regional hospital to be made on a case-by-case basis in consultation with the appropriate DHHS Regional Medical Coordinator.
- DHHS to advise hospitals where to access antiviral stocks for healthcare workers, patients and contacts.

Management (treatment)

Confirmed cases

- Antivirals, to be commenced within 48 hours of symptom onset/according to manufacturer's instructions – duration five days.
- Isolation - until asymptomatic (adults at least five to ten days, depending on the agent used, and children 21 days).

Contacts (asymptomatic)

- Education and monitoring - educational material will be given to any asymptomatic people who have had contact with an infected animal or human case.
- Human contacts at this stage will be advised to stay at home and monitor their own health and call the Communicable Diseases Prevention Unit of the DHHS if any symptoms develop. If numbers permit active surveillance will be deployed.
- Antivirals for five to ten days, depending on the agent used, after last contact.

Prophylaxis

- Border workers - antivirals for five to ten days, depending on the agent used, after last contact.
- Health care worker working with confirmed human cases – antivirals for five to ten days, depending on the agent used, after last contact.

General Practice

- Control suspected and confirmed cases of influenza:
 - Implement infection control before, during and after assessment of suspected cases of novel influenza virus to minimise spread of disease.
 - Arrange assessment of suspected cases of novel influenza virus in the home or on arrival at the surgery, or arrange for seating in a separate waiting area.
 - Advise voluntary isolation for symptomatic cases (when cases not isolated in hospitals).
- Treat symptomatic cases of novel influenza virus with antivirals for five days.
- Control of contacts of cases of novel influenza virus (exposed in Australia or overseas):
- Provide advice on the disease, and its symptoms and signs; the use of tissues for coughing and sneezing, frequent hand washing and actions to take if illness occurs, self-monitoring for signs and symptoms of disease and reporting if ill.
- Provide post exposure antiviral prophylaxis to contacts of confirmed cases, as per public health guidelines/protocols.
- Provide clinical evaluation of symptomatic contacts, in the home where possible.
- Advise quarantine of suspected and confirmed cases at home.
- If quarantined at home, provide advice for other household members and carers on infection control and actions to take if contact becomes ill.
- Health care workers to self-monitor for symptoms and signs of disease.

Laboratories

- Routine laboratories (public & private) transfer any referred specimens to VIDRL for analysis.

Ambulance Services

- Stockpile masks and other PPE and cleaning supplies.
- Institute appropriate infection control policies, including ambulance decontamination procedures.
- Provide antivirals (from NMS) for exposed staff.
- In consultation with the appropriate DHHS Regional Medical Coordinator, triage cases requiring hospitalisation and refer to appropriate facility.

Community Recovery

- Support will be needed for cases isolated at home and contacts who are quarantined at home.
- Community support and recovery is to be consistent with the State Community Recovery Plan (to be issued)

Phase: Overseas 4 and Overseas 5 – Human cases overseas

- **Transmission between humans; No confirmed human cases in Australia**
- **Goal: containment**

Surveillance

- Review of surveillance case definition - A case definition for human cases infected with a novel influenza virus should be established by CDNA based on advice from WHO and adopted by DHHS.
- Laboratory testing - A laboratory testing protocol for the novel influenza virus in both humans and animals should be based on advice from the Public Health Laboratory Network (PHLN). This would include testing for other infections that may have a similar clinical presentation.
- Case notification - All suspected human cases must be notified as a matter of urgency to the Communicable Diseases Prevention Unit, DHHS.

DPIWE

- Poultry cullers if dealing with possible animal cases will require:
 - Appropriate PPE and antiviral medication use and
 - Education and staff health monitoring.

Hospitals

- Border workers - antivirals for five to ten days, depending on the agent used, after last contact with any confirmed cases.
- Health care worker working with confirmed human cases from overseas – antivirals for five to ten days, depending on the agent used, after last contact.
- Asymptomatic person with contact in the previous week with a suspected or confirmed case overseas during the infectious period – antivirals for five to ten days, depending on the agent used, after last contact.

General practice

- DHHS to advise general practitioners where to access antiviral stocks for cases and contacts.
- Health care worker in contact with confirmed human cases from overseas - antivirals for five to ten days, depending on the agent used, after last contact.
- Asymptomatic person with contact in the previous week with a suspected or confirmed case overseas during the infectious period – antivirals for five to ten days after last contact, depending on the agent used.
- The Divisions of General Practice will play a key role in communication with general practices via regular and appropriate updates.

Laboratories

- Laboratory testing protocol for novel influenza virus based on advice from PHLN.

Ambulance Services

- Specific advice to staff of the relevant provisions of the infection control policies in terms of minimising spread.
- Provide antivirals for staff exposed to any confirmed cases for five to ten days, depending on the agent used, after the last contact.

Isolation, quarantine and border control methods

- DHA to coordinate a Health Alert (information leaflets and signage), advising returning travellers of the situation overseas. Returning passengers will also be advised of symptoms and to contact a doctor or hospital if they develop these symptoms up to two weeks after returning.
- Medical practitioners who have to examine any suspected cases should wear full PPE. Any confirmed human cases of avian influenza should be isolated at home (if their clinical condition permits) or in a single room with negative pressure if referred to hospital. Confirmed cases should be commenced on antiviral medication as soon as possible and continued for five days. All household contacts should be quarantined at home and given antiviral prophylaxis for five to ten days, depending on the agent used. Cases and contacts should be provided with adequate information on infection control, addressing such measures as cough etiquette and cleaning of potentially contaminated surfaces.
- Depending on the circumstances at the time, Tasmania may restrict entry points if it appears likely to reduce the risk of the disease entering. Quarantine facilities may be established if appropriate.

Phase: Australia 4 and Australia 5 – Human cases in Australia

- **Transmission between humans – (from small to larger clusters)**
- **Goal: containment**

Surveillance

- Continue count of cases and contacts and influenza-related deaths.
- Liaison with CDNA (NIPAC) daily.
- Case notification – All suspected human cases must be notified as a matter of urgency to the Communicable Diseases Prevention Unit.

Hospitals

Suspected cases

- Implement stringent infection control before, during and after assessment of suspected cases and during any hospital care.
- If hospital admission is necessary, isolation in a NPR until clinical severity allows discharge home.
- Antivirals within 48 hours of symptoms onset / according to manufacturer's instructions – duration five to ten days, depending on the agent used.

Communication

- Regular updates provided to healthcare workers and to the public.
- DHHS will provide information to key government and non-government agencies on the situation.

If Tasmania is the affected region additional measures would include the following:

- Activate the Emergency Operations Centre (EOC) in accordance with the MEMP.
- Key government and non-government agencies will be required to provide reports to DHHS on the impact of the epidemic on services and to notify associated incidents.
- CAICs will be instructed to prepare for activation within a 48-hour timeframe (CAICs will then be activated once cases are confirmed in Tasmania).
- Internal regional quarantine and restricted entry and exit measures will be considered.

The EOC role during these Phases is to:

- Establish contact with health service CEOs, DHHS Regional Medical Coordinators and emergency disaster response and recovery personnel;
- Provide information and advice to hospitals, primary care, ambulance services and CAICs regarding the scale of the epidemic;
- Monitor the status of the health services through obtaining information about a range of issues such as beds available and resources required;

- Manage statewide resources to meet critical service demands;
- Centrally coordinate and provide information to the health sectors, DHHS, regions and government on the overall status of services; and
- Liaise with, and provide communication updates on a regular basis to the following bodies:
 - Ambulance services;
 - Divisions of General Practice;
 - Pharmacies;
 - Australian Red Cross Blood Service;
 - Private Hospitals; and
 - Other private health service providers (including Imaging and Pathology).

Private hospitals, metropolitan health services and rural regions will have a single point of contact with the DHHS via their appropriate Regional Medical Coordinator. Throughout the duration of the epidemic they will provide reports, at a frequency determined by DHHS (most likely daily) to their Regional Medical Coordinator, who will relay information to the DHHS Incident Controller and the Communicable Diseases Prevention Unit (CDPU). This will include but not be limited to:

- Total beds occupied;
- Total beds vacant;
- Number of influenza patients (presenting to Departments of Emergency Medicine, (DEM) admitted, treated and discharged, deceased); and
- Number of elective admissions postponed.

Situation Reports are to be prepared for all services irrespective of whether they are receiving / have patients with influenza or not.

General practice

- As per Phase Australia 3

Laboratories

- As per Phase Australia 3

Ambulance Services

- As per Phase Australia 3

Community Recovery

- As per Phase Australia 3

Phase Australia 6a – Pandemic in Australia (one area of country)

- Goal: containment

Surveillance

- Review of surveillance - determine whether to continue the elements of routine surveillance.

If Tasmania is the affected region additional measures would include the following:

- Monitoring hospital and CAIC presentations – patients who have presented, been assessed and diagnosed as suspected or confirmed cases but due to clinical condition have been sent home for care - A designated representative at designated hospitals or all hospitals depending on response strategies, should report daily to the RMC on admitted cases of suspected and confirmed pandemic influenza. The RMC will notify the CDPU of this information.
- Monitoring hospital admissions - A designated representative at designated hospitals or all hospitals depending on response strategies, should report daily to the RMC on admitted cases of suspected and confirmed pandemic influenza. The RMC will notify the CDPU of this information.
- Monitoring deaths through Regional Medical Coordinators
 - Deaths in hospitalised patients - A designated representative at all hospitals should report daily to their Regional Medical Coordinator on deaths due to suspected and confirmed pandemic influenza. The RMC will notify the CDPU of this information.
 - Deaths in non-hospitalised patients - A designated representative from the Coroner's office should report daily to the EOC on deaths due to suspected and confirmed pandemic influenza. This information will be notified to the CDPU.
- Monitoring health workforce absenteeism through Regional Medical Coordinators
 - Absenteeism among hospital staff - A designated representative at all hospitals should report daily to the EOC on hospital workforce absenteeism, total and by employment category, if possible.
 - Absenteeism among general practice staff - A designated representative from each of the General Practice Divisions should report daily to the EOC on general practice workforce absenteeism, total and by employment category, if possible.
 - Absenteeism among ambulance staff – A designated representative should report daily to the EOC on absenteeism, total and by employment category, if possible.
 - Absenteeism among pharmacists – A designated representative, from the Pharmacy profession should report regularly to the EOC on absenteeism, if possible.
- Monitoring other workforce/student absenteeism - In order to monitor workforce absenteeism in essential services and industries, communication should be established prior to the onset of a pandemic with the following

organizations via the appropriate whole of government mechanism to be developed:

- Police;
 - Emergency services (SES, Fire Services);
 - Utilities (water, gas, electricity);
 - Schools – students/teachers (childcare, pre-school, primary, secondary, tertiary); and
 - Local government.
- Consider how recovered cases, who are presumably immune to the novel virus, can be identified by occupation, for example, health care workers (HCWs) or workers in designated essential services, facilitating the development of a resource of presumed immune workers.

Contacts

If Tasmania is the affected region additional measures would include the following:

- Provide advice on the disease, its signs and symptoms, and control measures.
- Advise self-monitoring for signs and symptoms of the disease and reporting if ill.
- Voluntary home quarantine of healthy contacts.
- Provide clinical evaluation of symptomatic contacts in home where possible
- Advise contacts to defer travel to unaffected areas.

Vaccine

- Mobilisation to immunise priority groups against pandemic strain (as soon as vaccine is developed). CAICs will act as the primary vaccination centres.

Public health measures

Make recommendations on public health measures as appropriate, in consultation with DHA/CDNA and provide advice to the DHHS Incident Control Team in order for them to make a risk benefit analysis at the time. The issues taken into account at the time will include:

- The morbidity and mortality by age group.
- Levels of absenteeism by different groups (e.g. health care workers, essential services staff etc).
- The virulence and level of infectivity of the novel virus.

The following measures will be considered:

- Establishing CAICs as outlined in MEMP.
- Measures to increase social distance:
 - Voluntary home confinement of symptomatic persons (if not isolated in hospitals).

- Closure of schools (including pre-schools, primary, secondary and higher education) in conjunction with other measures to reduce mixing of children.
- Population wide measures to reduce the mixing of adults (e.g. discourage mass gatherings).
- Measures to decrease interval between symptom onset and isolation:
 - Public campaign to encourage prompt self-diagnosis.
 - Urge entire population in affected areas to check for fever daily.
- Disinfection measures for members of public:
 - Provide advice on hand washing.
 - Provide advice on household disinfection of potentially contaminated surfaces.
- Recommendation to defer non-essential travel from unaffected to affected areas.

Community Recovery

- Coordinate community support and recovery activities across the region.
- Community recovery from the effects of a pandemic will follow the model contained in the TEMP and the State Community Recovery Plan. Service provision will, as far as possible, be devolved to local government with resources support, if necessary, from the State Government. This would include assessment of the need for temporary accommodation, material assistance, financial assistance and personal support, including bereavement support services.
- Centrelink to be contacted to advise on income support issues.

Communication

- The Communications Plan informing the general public and health professionals of the locations and purposes of CAICs will be operationalised once the decision to activate CAICs has been made by the DHHS Incident Control Team
- At all stages of the pandemic, health services will be informed of the response requirements for their agency.
- Disseminate information to general public on influenza including methods of transmission, risks and risk avoidance including personal protective measures (tailored to the target population) through:
 - The distribution of fact sheets, Community Service Announcements on television and radio, and other strategies as appropriate; and
 - Ensuring public access to DHHS website and other sources for information.
- Disseminate information to health professionals on disease, infection control, testing, recommended actions etc.
- All media queries will be co-ordinated through the DHHS Media Unit which will liaise closely with the Tasmanian Government Communications Officer and the National Emergency Media Relations Network.

If Tasmania is the affected region additional measures would include the following:

- PEHS will coordinate response for public health management of possible/confirmed cases of influenza.

Hospitals

- CAICs will complement and be linked to clinics collocated at designated hospitals.
- All hospitals to have contingencies for triaging increasing numbers of pandemic influenza patients.
- Consider cessation of elective surgery and early discharge of patients as appropriate.

If Tasmania is the affected region additional measures would include the following:

- Liaise with hospitals to activate hospital emergency and disaster plans.
- Patients requiring admission will be cohorted in isolation wards (suspected cases separate from confirmed cases).

Treatment/prevention

Cases (suspected or confirmed)

- Education and monitoring - educational material on signs and symptoms to monitor and report, and ways to prevent infecting others will be given to suspected cases.
- Isolation - until diagnosis is excluded, or until patient is no longer symptomatic and at least five to ten days for adults, depending on the agent used, and 21 days for children.

If Tasmania is the affected region additional measures would include the following:

- Cases will have daily communication with DHHS, if possible, depending on numbers involved.
- Antivirals, if available, within 48 hours of symptom onset/according to manufacturer's instructions) – duration five days.

Prophylaxis

- Provide immunisation with pandemic vaccine to all health care workers including investigation teams as soon as vaccine is available.
- Antiviral prophylaxis as above.
- During assessment and care use appropriate PPE.

If Tasmania was the affected region additional measures would include the following:

- Health care worker working with suspected or confirmed human cases - antivirals for as long as contact continues and five to ten days after last contact, depending on the agent used.
- Asymptomatic person with human contact in the last week with a suspected or confirmed case during the infectious period – antivirals for five to ten days after last contact, depending on the agent used.
- After exposure to possible case of pandemic influenza, do not work if symptoms of respiratory illness. Self-monitoring for signs and symptoms of disease and reporting if ill. Self isolate until assessed.

General practice

- Stock masks for use in waiting rooms.
- By local arrangement, provide support to CAICs.
- The Divisions to activate the Divisions Emergency Plan (DEMP)
- Divisions to be the central contact point for communication and coordination issues related to general practice.

If Tasmania is the affected region additional measures would include the following:

- Refer possible cases to designated hospitals, if clinical condition warrants this.
- Patients with influenza-like illness who are well enough to be managed at home, and the families, are instructed on infection control and any follow-up.
- Have separate waiting room facilities for possible cases.
- DHHS to coordinate access to antivirals for contacts.

Laboratories

- Depending on availability of influenza test facilities within Tasmania at the time, transfer referred specimens to VIDRL for analysis.

Ambulance Services

- Specifically review all non-essential activities to maximise on going response capacity.
- Infection control practices in accordance with national Guidelines (under development)

If Tasmania is the affected region additional measures would include the following:

- Transport of possible influenza cases and appropriate destination will initially be undertaken in consultation with the Communicable Diseases Prevention Unit.
- Continue antivirals for exposed staff, and monitor staff.
- Consider co-opting private ambulance services

Local Government

- Provision of resources as available and needed by the community and response agencies.
- Establishment of CAIC facilities and staffing.

Community Recovery

- Provision and/or coordination of volunteer helpers.
- Provision of personal support services, eg counselling, advocacy.
- Provision and staffing of CAICs according to capacity
- Convening of Municipal Community Recovery Committees.

If Tasmania is the affected region additional measures would include the following:

- Provide support to individuals/communities quarantined/isolated in homes/institutions.

Phase: Australia 6b– Pandemic in Australia - widespread

- **Goal: maintaining essential services**

Surveillance

- As per Phase 6a.

Vaccine

- Upon availability of vaccine, priority groups will be vaccinated.
- DHHS will source and distribute the vaccine, coordinated by PEHS.
- Hospital pharmacies will act as the liaison points for vaccination of hospital staff.
- Once the identified priority groups have been vaccinated and further vaccine is available, the general population will be vaccinated. This will be overseen by DHHS and utilise CAICs and general practices.

Public health measures

- Review current public health measures and consider whether further public health measures are required.
- DHHS to continue to coordinate response for public health management of possible/confirmed cases of influenza.
- Liaise with DHA regarding anti viral stockpiles and vaccine.

Communication

- All media queries should be directed to the DHHS Media Unit.

Mortuary Capacity

- In the event that funeral directors are unable to handle the increased number of corpses and funerals, it will be the responsibility of DHHS to make appropriate arrangements for the ongoing storage of bodies prior to burial/cremation, through the use of temporary refrigerated containers.

A: Services coping (low numbers)

Hospitals

As per Phase 6a, including the addition of:

- All staff working within the hospital to use antivirals and PPE
- Confirmed case – priority may need to be given to those deemed at highest risk of severe outcome (those at high risk of serious morbidity and mortality will depend on the epidemiology of the causative virus).
- Suspected case – depending on availability of supplies – provide antivirals.

- Prophylaxis will depend on availability, priority groups to minimise social disruption –health care workers and essential service workers.

Contacts

- As per Phase 6a.

General practice

- All staff working within the practice to use antivirals and PPE
- Patient referred to any hospital based only on clinical severity.
- DHHS to advise GPs where to access anti-virals for contacts.

Laboratories

- Transfer any referred specimens to VIDRL for analysis.

Ambulance Service

- As per Phase 6a.

B: Services full capacity

Hospitals

- With NPRs and isolation wards near capacity other facilities will be nominated by DHHS to manage cases.

General practice

- All staff working within the practice to use antivirals and PPE
- Attempt to manage most patients at home if clinically appropriate.
- Separate waiting room facilities for potential cases probably not practical given patient numbers.

Community Pharmacies

- All staff working within the pharmacy to use antivirals and PPE
- Patient referred to any hospital based on clinical severity of illness.

Ambulance Services

- Reduce all non-essential activities to maximise on going response capacity
- All staff working to use antivirals and PPE
- Consider infield triage to deliver to selected sites based on severity in conjunction with DHHS Incident Controller.
- Liaise with DHHS Incident Controller in regards to actions with non-emergency requests (pre planned and routine clinic transports).

C: Services overwhelmed

Acute Health Services

- As per “B: Services full capacity”

General practice

- General practices overwhelmed divert to CAICs based at public hospitals or other locations nominated under MEMP.

Community Pharmacies

- Pharmacies overwhelmed divert to CAICs based at public hospitals or other locations nominated under MEMP.

Laboratories

- Laboratories may cease testing (unless specifically requested for any reason), clinical diagnosis should suffice.

Community Recovery

- As per Phase 6a.

Phase 6c – Pandemic in Australia – subsided

- **Goal: maintaining vigilance**

DHHS

- Evaluate actions to date.
- Continue surveillance activities and reporting.
- Collate data on cases and effectiveness of vaccines and antivirals.

Hospitals

- Stock inventory and resupply.

Laboratories

- Stock inventory and resupply.

Ambulance Services

- Ambulance Service to regain continuity of service provision.
- Stock inventory and resupply.

Community Recovery

- As per Phase 6a.

Phase 6d – Pandemic in Australia - next wave

- **Goal: maintaining essential services**

Same measures as implemented in Phase 6a.

End of pandemic

- **Goal: return a community to a level of sustainment and operation that meets with community wishes and expectations**

Evaluation and reporting

- Phase out quarantine measures, travel restrictions and public health measures.
- Summarise impact of pandemic and collate data.
- Re-stock resources used during the pandemic.
- Debriefing for major services involved.

Community Recovery

- Government Departments tasked to assess community impacts upon small business and industry.
- Recovery strategy to be developed to promote community cohesiveness, support individuals and promote economic recovery.
- Liaison with Australian Government on issues around business and income support.
- Conduct memorial services as determined by the impact.
- Provide community information on bereavement support services.