

ASSOCIATION OF INDEPENDENT SCHOOLS OF VICTORIA

AiSV

Influenza Pandemic

Resource Guide for Independent Schools

2006

Introduction

The World Health Organisation has alerted Governments to the potential for a pandemic to occur. In recent years outbreaks of avian influenza have caused death and illness. In response to the threat of a pandemic, the Australian Government has developed a plan for the prevention, containment and management of pandemic in Australia. Victoria has, in response to the Australian Pandemic Management Plan, developed a strategy for implementation in preparation for pandemic and its consequences. All organisations are encouraged, as part of the Victorian strategy, to prepare a prevention and management plan for pandemic influenza. “Preparedness requires planning and action in advance”.¹

If an influenza pandemic outbreak occurs in Australia or an Australian citizen is infected with avian influenza whilst in another country, school communities may be at risk of the impact of a pandemic. Pandemic preparedness and planning within the school context should be part of the updating of existing emergency management plans which require review in light of new and emerging threats on a regular basis. Being informed about and prepared for the possible impact of avian influenza and pandemic viruses is an important part of meeting the safety requirements of your school community.

Pandemic Influenza

What is influenza?

Typical influenza presents with fever, cough and lethargy. Influenza is an acute respiratory disease caused by either influenza virus type A or B. Type A has been associated with widespread epidemics; and pandemics, whilst type B has been frequently associated with regional epidemics, type C is only rarely associated with human infection. Influenza has an incubation period of 1-7 days (usually 2-3 days). Adults can spread the virus from **1 day before** developing symptoms to up to **7 days after** the onset of the illness. Children, especially younger children, can spread the virus for longer than 7 days. Influenza can survive in the environment for extended periods of time. Influenza can be sub-typed further by noting the surface antigens (proteins), the surface antigens are either haemagglutinin (H) or neuraminidase (N).

Transmission of human influenza

Human influenza is generally transmitted by the following methods:

Droplet transmission

Droplets from a cough or sneeze of an infected person are propelled through the air (up to 1 metre).

¹ The Australian Management Plan for Pandemic Influenza. 2005.

Contact Transmission

Transmission occurs through touching the respiratory droplets of an infected person.

Airborne Transmission

Airborne transmission may occur when procedures are undertaken that result in very fine droplets being released into the air and consequently inhaled. Such procedures include the taking of respiratory samples and the use of a nebuliser.

Avian Influenza

Avian influenza is an infectious disease of birds that is caused by type A strains of the influenza virus. This virus has caused significant concern because it produces severe disease, spreads rapidly and has a high mortality rate (between 45% - 73%). To date, it has **not** spread **easily** from human to human, although there has been a reported cluster of cases where it is believed that human to human transmission has occurred.

Influenza viruses evolve rapidly therefore could mutate to be highly transmissible to humans. All birds are thought to be susceptible to avian influenza. Direct or indirect contact between domestic flocks and wild migratory water fowl has been implicated as a frequent cause of epidemic.

Transmission

Avian influenza is spread through:

- Contact with infected birds
- Bird droppings, saliva and nasal secretions
- In water (can survive in water for 4 days at 22°C)
- Contaminated equipment, feet and clothing
- Feet and bodies of animals (such as rodents)
- Being airborne
- Droplet and contact

Clinical features of Human cases of Avian Influenza

Characterised by:

- Severe respiratory illness such as viral pneumonia
- Diarrhoea
- Some cases have not had symptoms of respiratory illness but rather have shown symptoms of lethargy, fever and diarrhoea
- Fever greater than 38°C
- Encephalopathy (*disease of the brain that alters brain function or structure*)

The development of a pandemic

A pandemic is a world wide epidemic. These occur when a totally new strain of influenza, that is capable of infecting humans, appears. Influenza virus changes gradually year by year. It is thought that a new strain appears when an animal influenza virus alters its genetic structure to enable it to affect humans and spread from person to person or when a current human influenza strain undergoes mutation. Such newly emerging strains are associated with high morbidity, excess mortality and social and economic disruption. Few people have immunity to the new strain.

Pandemics have occurred previously:

- 1918: “Spanish” flu (A H1N1) 20-40 million deaths
- 1957: “Asian” flu (A H2N2) 1-4 million deaths
- 1968: “Hong Kong” flu (A H3N2) 1-4 million deaths

Current epidemiology- confirmed avian influenza in humans since December 2003 (as of February 6th 2006)

Country	Total Cases	Total deaths
Cambodia	4	4
China	10	7
Indonesia	23	16
Iraq	1	1
Thailand	22	14
Turkey	12	4
Vietnam	93	42
Total	165	88

The Australian Management Plan for Pandemic Influenza

Since the outbreak of avian influenza in 2003, the Australian Government has put in place measures to be equipped to respond should a pandemic threaten Australia. Preparations have included the stockpiling of vaccines, anti viral drugs and protective gear, the development of a comprehensive management plan for pandemic influenza and the testing of the plan with agencies likely to be activated should an outbreak occur.

The Australian Management Plan for Pandemic Influenza contains strategies of containment and maintenance of essential services. In the early stages of an outbreak of the pandemic the plan aims to contain the spread of the virus, through measures such as border control, isolation of the sick, quarantine of contacts and use of anti viral medications. If the pandemic becomes widespread, efforts will be concentrated on maintaining essential services. The **Chief Medical Officer**, in conjunction with an expert advisory group, will determine when the shift in focus from containment to maintenance of essential services is required. This is likely to occur if there are reports of explosive spread of the virus within the general Australian population or if there is pandemic occurrence overseas with clusters of risk within Australia.

The Australian Management Plan for Pandemic Influenza aims to provide national guidance to stakeholders in the development of responses and plans for the management of pandemic. Specific objectives of the plan include the following:

- To ensure surveillance measures are in place to detect emerging threat.
- To prepare Australia to respond in a timely manner.
- To establish rapid detection, identification, notification and response systems.
- To delay the entry of the pandemic virus to Australia, limit the spread through containment strategies and limit morbidity and mortality.
- To provide authoritative information at all stages.
- To identify the need for additional resources, as required throughout the pandemic phases, in public health and industries.

Australian phases within the pandemic plan.

The Australian Management Plan for Pandemic Influenza categorises risk triggers and planned responses into phases that have been developed in conjunction with the World Health Organisation. The plan also includes global phases, but for the purposes of this document only Australian phases have been reported.

Period	Australian Phase	Description of the phase	Main strategy
Inter-pandemic	0 Australian wild life not infected with virus	No new influenza virus subtypes have been detected in humans. A virus subtype that has caused infection or disease is not present in animals in Australia	Containment Maintenance of essential services
	1 Risk of human infection is considered low	Animal infection in Australia: the risk of human infection is considered low	Containment Maintenance of essential services
	2 Animal infection may infect humans, need to put in place public health measures to protect people at risk	Animal infection in Australia; substantial risk of human infection	Containment Maintenance of essential services
Pandemic Alert	3 Human disease increases the chance of adaptation of the virus to become transmissible from human to human	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	Containment Maintenance of essential services
	4 Increased human transmissibility but not well adapted to humans	Human infection in Australia; small cluster/s with limited human to human spread. Human transmission spread highly localised,	

		suggesting virus not well adapted to humans	
	5 Virus is more adapted to humans. Spread in clusters but still localised. Considered the last chance for coordinated global intervention.	Human infection in Australia: Larger cluster/s but human to human spread still localised suggesting virus becoming better adapted to humans. Substantial pandemic risk	
Pandemic	6 Pandemic risk is imminent, consideration of disease impact necessary.	Pandemic in Australia: localised	
	6b	Pandemic in Australia, widespread	
	6c	Pandemic in Australia, subsided	
	6d Because Australia is not as densely populated as other countries there is till a chance to contain the spread of the pandemic in later phases.	Pandemic in Australia, next wave	

National Decision making structure

At the National level decisions with regard to phases and response will be made by the **Australian Government Inter-Departmental Taskforce/Committee (IDTF)**. This committee is charged with the responsibility for coordinating the Australian Government assessment and response and for recommending action. The IDTF gains up to date information from specialist advisory groups, including:

- Chief Medical Officer's Expert Advisory Group
- Australian Health Disaster Management Policy Committee (AHDMP)
- National Influenza Pandemic Advisory Committee (NIPAC)
- Communicable Diseases Network Australia
- Public Health Laboratory Network (PHLN)

School Closures - a part of the social distancing strategy

The Australian Health Disaster Management Policy Committee will provide advice to States and Territories on a range of matters including the closure of schools. State and Territory Governments will implement many of the decisions made at a National level; including how and where social distancing measures might be implemented including, school closure and limiting mass gatherings.

In accordance with the *WHO Consultation on priority public health interventions before and during influenza pandemic 2004*, authorities will consider social distancing measures depending on epidemiological characteristics of virus attack such as virus attack rates in particular age groups and transmission characteristics.

National Influenza Pandemic Advisory Committee (NIPAC; 2005) recommends school and day care centre closures once effective transmission is occurring in Australia. **(Phase 5)**. Closure of schools has been particularly effective in decreasing viral respiratory illnesses in past influenza pandemics.

Border Control and Quarantine

The Quarantine Act 1908

The Australian Government has responsibility for quarantine under the Australian Constitution. Responsibility for human quarantine is exercised by the Minister for Health and Ageing through the Quarantine Act 1908. High Pathogenic Avian Influenza in Humans (HPAII) was declared a quarantinable disease in 2004. Each State and Territory health authority provides a senior medical officer to perform the duties of the Chief Quarantine Officer.

Border Control

The Government is prepared to implement border control measures to prevent or delay **the entry** of pandemic influenza and to restrict movement **out of** Australia if pandemic transmission is occurring from human to human within Australia.

As pandemic influenza events increase overseas the IDTF will consider commencing entry screening via health declaration cards, thermal imaging and declarations by aircraft captains of the health status of passengers. A border nurse will assess those passengers identified as possible cases.

Isolation

Patients who are suspected to be infected with the influenza because they are symptomatic need to be isolated from others. This will occur whether in the home or a health care setting. Those who have been exposed to a person with influenza but do not have symptoms should be quarantined.

Information for and management of Australians overseas

The primary mechanism for informing Australians overseas about the risk for pandemic influenza will be through the Department of Foreign Affairs and Trade website (DFAT, www.smartraveller.gov.au). Advice, and if necessary, recommendations to avoid travel to affected areas and urging travelers to return to Australia will be provided through this website. Those returning to Australia from affected areas may be required to undergo additional disease screening.

Communication

The Australian Department of Health and Ageing (DoHA) website is a key part of the Australian Management Plan for Pandemic Influenza communication strategy. (www.health.gov.au) There is also a free-call information line that will be resourced according to the designated phase of threat. (1800 004 599)

Workforce Issues

All organisations may be affected by staff absences due to sickness or the need to take care of others or due to fear of contracting pandemic influenza. It is recommended that consideration should be given to the following issues:

- Establishing minimal staffing levels
- Provision of psychological support
- Accommodating staff where travel is likely to be problematic
- Monitoring staff for illness
- Monitoring staff access to and use of anti virals

Emergency Management in Victoria²

Victoria's emergency management arrangements are overseen by the **Victorian Emergency Management Council (VEMC)** which is a statutory Committee chaired by the Minister for Police and Emergency Services as Coordinator in Chief of Emergency Management. The *Emergency Management Act* 1986, tasks the committee with advising the Coordinator in Chief on all matters relating to the prevention of, response to and recovery from emergencies in government and non government sectors. Victoria's emergency management arrangements are premised upon an 'all hazards, comprehensive framework'. There are four components to emergency planning:

² Emergency Management Manual Victoria, www.justice.vic.gov.au/emergencymanual

Prevention is the elimination or reduction of the incident or severity of the emergency and the mitigation of its effects.

Preparedness covers planning, equipping, training and development of programs that ensure that agencies are ready to undertake their roles and responsibilities.

Response is the combating and containment of emergencies and the provision of search, rescue and immediate relief services such as medical support.

Recovery means assisting of people and communities affected by emergencies to achieve a proper and effective level of functioning in the areas of social relationships, health, the environment (both natural and built) and economy³.

Defining an “emergency”

*The Emergency Management Act 1986*⁴ contains the following definition of ‘emergency’: an emergency due to actual or imminent occurrence of an event, which in any way endangers or threatens to endanger the safety or health of any person in Victoria or which destroys or damages, or threatens to destroy or damage, any property in Victoria or endangers or threatens to endanger the environment or an element of the environment in Victoria, including, without limiting the generality of the foregoing-

- a. an earthquake, flood, wind-storm or other natural event; and
- b. a fire; and
- c. an explosion; and
- d. a road accident or any other accident; and
- e. a plague or epidemic; and
- f. a warlike act, whether directed at Victoria or at any other State or Territory of the Commonwealth; and
- g. a hi-jack, siege or riot; and
- h. a disruption to essential service.

The Victorian Influenza Pandemic Plan⁵

The Victorian Influenza Pandemic Plan (VIPP) aims to minimise morbidity and mortality associated with influenza pandemic, as well as the impact on the community, health care system and the economy. The Department of Human Services, Public Health Group is the designated control agency for Human illnesses/epidemics under the Emergency Management Act of 1986. The Victorian Influenza Pandemic Plan is a sub plan of the

³ Department of Human Services www.dhs.vic.gov.au/emergency

⁴ The Emergency Management Act 1986,

⁵ The Victorian Influenza Pandemic Plan, www.health.vic.gov.au/ideas/downloads/pan_plan_nov05.pdf

Public Health emergency management arrangements (PHEMA) and operates under the Victorian Emergency Management Plan.

Key objectives of the Victorian Influenza Pandemic Plan

- To identify the planning and preparedness activities that would reduce the impact of an influenza pandemic in Victoria
- To ensure intersectoral collaboration in planning and implementation of the VIPP to clarify arrangements that would be put in place and actions that would be taken
- To clarify the roles and responsibilities of the agencies involved

Within the Victorian plan individual agencies are responsible for ensuring that their own business continuity plans make provision for maintaining high priority activities and infrastructure. Three major strategies are used within the Victorian plan:

1. Preparedness
2. Containment
3. Maintenance of essential services

Determination of phases

The determination of global phases will be made by the Director General of the World Health Organisation. The Australian Phases will be designated by the Australian Department of Health and Ageing, in particular, the Chief Medical Officer in consultation with an expert advisory group. The Victorian Chief Health Officer will, in conjunction, with the Australian Department of Health and Ageing, determine phases.

Department of Humans Services and Local Government

Councils play a critical role in Victoria's emergency management systems. Department of Human Services Victoria will work with local government to implement response and recovery strategies should pandemic influenza occur. Councils have emergency management responsibilities because they are the closest level of government to their community and have access to specialised knowledge of their communities.⁶

Issue	Roles/Responsibilities
Planning and preparedness	Undertake Influenza pandemic planning Make provision for business continuity in face of increased absenteeism Promote vaccination for influenza and pneumococcal vaccine for identified high risk groups
Response/Recovery	Information/Resources Work in conjunction with region and Public

⁶ Victorian Influenza Pandemic Plan. November 2005, P.83

	<p>Health Group to disseminate information (including warnings)</p> <p>Provision of resources available and needed by the community and response agencies</p> <p>Establishment of Municipal Emergency Management Centre (MECC)- facilities and staffing</p> <p>Post impact assessment- gathering and processing of information</p>
	<p>Community Support</p> <p>Provide support to individuals and communities quarantined/isolated in homes and institutions</p> <p>Provision and or coordination of volunteer helpers</p> <p>Provision of personal support services eg counselling</p> <p>Provision and staffing of recovery/information centres</p> <p>Convening of municipal/community recovery committees</p>
	<p>Vaccine</p> <p>Vaccine storage and delivery</p> <p>Provide immunisation services according to recommendation by DHS</p>

Department of Human Services - Regional Offices

One of the operational activities of Regions is emergency management/incident response. In conjunction with the Public Health Group, Regions aim to improve the capacity to manage public health incident and emergencies in accordance with the *Public Health Emergency Management Plan*. This includes:

- Undertake risk assessments and risk evaluations as part of the preparedness or response to potential or actual emergency events according to agreed protocols with the Public Health Group
- Develop a command structure within the Region
- Provide support to Local Government public health emergency management planning process
- Review Regional public health emergency management plans in line with public health policy in consultation with key stakeholders within the region and state
- Participate in regional (and/or Divisional) emergency management committees to maximise emergency services organisations' knowledge and understanding of public health issues

Issue	Roles/Responsibilities of Regional DHS
Planning/Preparedness	Facilitate planning arrangements Work with local government authorities to assist with influenza pandemic planning Work with health care facilities to assist with influenza pandemic planning Facilitate pandemic planning within Region/Disability services/Community residential units/ Supported Residential units Make provision for business continuity within Regions in the face of increased absenteeism
Response/recovery	Provide assistance to DHS- Public Health, Communicable Diseases Section as required Provide assistance to Local Government to help deliver response activities Coordinate response at a Regional level Collation of Regional data to inform statewide response Coordinate community support and recovery activities Convene Regional Emergency Recovery Committee

The State Emergency Recovery Unit (SERU) of DHS will coordinate and facilitate recovery at the state level. Service provision will be, as far as possible, devolved to Local Government with resources support, if necessary, from the State Government.⁷

⁷ Victorian Influenza Pandemic Plan - November 2005. p.86

Regional Recovery Managers-Department of Human Services

Eastern Metropolitan	Barry Gunning	9843 6000 0412 144 657
Deputy	Jan Brown	9843 6685 0412 142 026
Southern Metropolitan	Cam Baddeley	9213 2413 0413 021 306
Deputy	Felicia Micallef	9213 2193
North Western	Colin Davey	9275 7177 0412 825 132
Deputy	Bill Little	9412 2658 0412 262 501

Barwon South Western	Rob Bromley	5226 4540 0407 552 943
Deputy	Skye Hayes	5226 4869
Gippsland	Geoff Houlihan	5177 2500 0419 344 384
Deputy	Doug Caulfield	5177 2542 0409 008 494
Grampians	Anthony Greenwood	5333 6001 0417 308 501
Deputy	David Draffin	5333 6034 0417 552 363
Deputy	Tom Niederle	5333 6027 0418 325 973

Hume	Chris Garrat	5722 0555 0419 303 597
Deputy	Michael Evans	5722 0547 0418 344 265
Deputy	Neville Maddox	5722 0914 0419 751 013
Loddon-Mallee	David Mulquiney	5434 5577
Deputy	Christopher Bolton	5434 5529 0418 126 458