

Introduction

The World Health Organization (WHO) raised its global pandemic alert level to Phase 6 on June 11 2009. Designation of this phase indicates that a global pandemic is underway and that it is no longer possible to contain the virus in a particular geographical area.

The WHO recognises that globally there is good reason to believe that the pandemic, at least in its early stages, will be of moderate severity but that, as we know from experience, the severity of the pandemic can vary from one country to another. Pandemic (H1N1) 2009 needs to be watched closely for any changes that indicate it may be becoming more severe.

At this stage pandemic (H1N1) 2009 is causing a wide spectrum of illness around the world. While some deaths have occurred, and some people have needed treatment in hospital, most people have had a mild illness and recovered after a few days at home. The illness can be serious in vulnerable people and has occasionally been unexpectedly severe in otherwise young and healthy people.

Consequently the WHO encourages individual countries to undertake 'course adjustment' according to their local circumstances. That is, to tailor their pandemic response measures to their local circumstances.

What we know about Pandemic (H1N1) 2009

Since the WHO announced outbreaks of a novel influenza strain –pandemic (H1N1) 2009 on the 24 April 2009, much has been learnt about this virus. From the progress of this virus we now know that:

- the pattern of the novel H1N1 is significantly different from that seen during epidemics of seasonal influenza, when most deaths occur in frail elderly people. This virus preferentially infects younger people. In Australia and overseas the majority of cases have occurred in people under the age of 25 years.^{1,2}
- in countries overseas, around 2% of cases have developed severe illness, often with very rapid progression to life-threatening pneumonia.³
- certain groups may be more vulnerable to severe outcomes of influenza. Many, though not all, severe cases have occurred in people with underlying chronic conditions. Pregnant women are also at increased risk of complications. Vulnerable groups identified for the PROTECT phase are outlined in detail in Part 2.1, Table 1.

Infection with pandemic (H1N1) 2009 is not as severe as originally envisaged when the Australian Health Management Plan for Pandemic Influenza was written in 2008.

¹ Statement to the press by WHO Director-General Dr Margaret Chan, World now at the start of 2009 influenza pandemic, 11 June 2009-
http://www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html

² Australian Government Influenza Surveillance 2009 Reports. Accessible on-line at
<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflu2009.htm>

³ Statement to the press by WHO Director-General Dr Margaret Chan, World now at the start of 2009 influenza pandemic, 11 June 2009-
http://www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html

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On present evidence, the overwhelming majority of patients experience mild symptoms and make a rapid and full recovery. However, the illnesses can be severe in some. The progress of the infection both overseas and in Australia indicates that the infection can best be described as mild in most but severe in some and moderate overall.

In Australia, patterns of disease spread are also varied, with some areas experiencing widespread community transmission, but others with only a small number of cases.

Given the moderate severity, the public health response needs to be measured, reasonable and proportionate to the risk the virus poses to the community. In response, a new phase of PROTECT has been developed which sits within the framework outlined in the AHMPPI 2008. The PROTECT phase sits beside CONTAIN and SUSTAIN. It is a phase specifically about a disease that is mild in most but severe in some and enables some of the measures of contain and sustain to be continued where locally appropriate.

The AHMPPI 2008 describes a CONTROL phase which has a range of measures to respond to a severe pandemic but with a primary focus on vaccination. Given the moderate severity and specific disease pattern seen with pandemic (H1N1) 2009, a new vaccination program will be implemented in the PROTECT phase. This vaccination program will include some of the vaccination activities which would have been undertaken in the CONTROL phase but which supports the on-going PROTECT measures.

The PROTECT phase provides a clear response; with a greater focus on those we now know are most likely to have poor outcomes. This is consistent with the WHO announcement which places emphasis on countries tailoring their pandemic response measures to local needs.

The PROTECT Phase

The PROTECT phase is a basket of measures which recognises the variability in disease patterns across Australia. The new phase will remain appropriate for Australia while the disease continues to be describable as mild in most.

The focus of the PROTECT phase is on identifying the people in whom disease may be severe and providing medical care and interventions to reduce likely suffering.

Given the variability of the spread of the disease in Australia, some jurisdictions within the PROTECT phase may continue community level activities to reduce the introduction and transmission of the disease.

Given the new focus of the PROTECT phase, certain measures employed at earlier stages of the national response will be adjusted to ensure they support the change. Border measures which had as their primary purpose the delay of entry of disease will now be geared to managing sick passengers who are identified at our international borders and providing information to well travellers about how best to protect themselves from becoming sick. Other measures previously employed, such as wide-scale community social distancing measures like cancellation of mass gatherings will also cease.

Key elements of the PROTECT phase:

- Identifying the vulnerable, in whom pandemic (H1N1) 2009 may have severe outcomes, noting that for this disease the vulnerable groups may differ from those usually considered vulnerable for seasonal flu;
- A focus on early treatment of those identified as vulnerable and those with moderate or severe disease, especially those with respiratory difficulty.
- Voluntary home isolation for those who are sick. Antiviral therapy from the national or state medical stockpiles will not be provided to patients with mild disease unless they belong to a vulnerable group or high risk setting. Contacts will not be placed into quarantine.
- A re-focus of testing to identify pandemic (H1N1) 2009 in those with moderate to severe disease; people who may be more vulnerable to more severe outcomes and outbreaks in institutional settings. Testing will also be continued for surveillance purposes, at hospital and community level, and to monitor virus behaviour.
- A vaccination program focused on protecting certain groups at higher risk of exposure (for example, health care workers) and those vulnerable to more severe outcomes, including pregnant women, Aboriginal and Torres Strait Islander people and people with underlying medical conditions. While emphasis will be on targeting these priority groups, the opportunistic vaccination of friends, family, and carers of vulnerable people or anyone wishing to protect themselves from pandemic (H1N1) 2009 is also encouraged. Any individual wishing to be vaccinated should see their General Practitioner or healthcare provider.

School policy

School policies continue to be important in the PROTECT phase. However, regional or widespread closure of schools is not considered a proportionate nor appropriate intervention for pandemic (H1N1) 2009 where disease is 'mild in most'.

In the PROTECT phase:

- Most importantly, children with an acute respiratory illness should not attend school.
- If a child becomes sick with an acute respiratory illness at school they should be sent home.
- Jurisdictions have the flexibility to close single schools or classrooms following identification of a case (confirmed through testing), if this is considered a useful measure to prevent an outbreak in the school. This measure is most relevant in jurisdictions without community transmission.⁴

Moving from the PROTECT phase

There is an ongoing need to closely watch the pattern of pandemic (H1N1) 2009 influenza infection for any changes that indicate it may be becoming more severe.

⁴ Community transmission is defined as person-to-person transmission, outside household or health care settings, with no epidemiological link to a known clinical or confirmed case.

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The key indicator for the consideration of a phase change would be a change in the virulence of the H1N1 virus. A change in virulence would be seen through either a change in the severity of the disease or a change in the genetic sequence of the virus. Hence it is critical that representative, timely data are collected for these measures. Clinical data are particularly important for signalling a change in virulence of the virus.

A change in severity would be detected through surveillance systems including:

- Clinical surveillance - identification and monitoring of hospital admissions, ICU admissions and death and monitoring of clinical outcomes throughout the influenza season. It is important that robust national surveillance systems are in place to detect these changes.
- Laboratory surveillance - increased testing for influenza virus at sentinel sites in the community to identify levels of community transmission and the strain of circulating influenza viruses.
- Ongoing monitoring of the virus for the emergence of antiviral resistance, antigenic drift, gene sequence changes, or reassortment.

Any of these could herald a change to greater virulence. Changes in antigenic characteristics, or genetic sequence would be detected through normal sequencing activities carried out by the World Health Organization Collaborating Centre (WHO CC). While this system is in place and operates throughout any influenza season, it is critical that sufficient, regular and representative isolates are sent to the WHO CC for genetic characterisation as currently required of National Influenza Centres (NICs).

Vaccination in the PROTECT phase

Under the AHMPPI (2008), vaccination with a pandemic influenza-specific vaccine marks the beginning of the next phase, CONTROL. However, the original AHMPPI was developed with a more severe disease in mind. Given the moderate nature of pandemic H1N1 09, and the desirability of continuing current measures under the PROTECT phase, an initially targeted vaccination program will be delivered. A change to the CONTROL phase will therefore not occur. Vaccinating in the PROTECT phase recognises that even though the disease is moderate overall, vaccination is an important aspect of protecting those most vulnerable to infection.

The underlying principles for targeting particular groups in Australia in the initial stages of the pandemic (H1N1) vaccination program are to:

- prevent ongoing severe disease, medical complications and deaths from pandemic H1N1 2009 influenza firstly in those at highest risk;
- protect health care workers, community and residential carers, most exposed to the pandemic virus and those vulnerable clients/patients in their care

Subsequent pandemic (H1N1) vaccination program activities will aim to:

- prevent the further spread of the current wave of pandemic (H1N1) 2009 influenza in the Australian community;
- protect the Australian community against possible future waves of a similar or more severe variant of the pandemic virus.

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Further information about vaccination in the PROTECT phase is available in the vaccination-specific appendices to this document (Appendices 3-9).

Alignment of the operational objectives to the known threat

As outlined in the National Action Plan for Human Influenza Pandemic, the overarching aim of preparedness and response to a pandemic is to: protect Australia and reduce the impact of the pandemic on social and economic functioning.

The health sector's goal remains the same in the PROTECT phase and is to: minimise the impact of an influenza pandemic on health and the health sector.

To achieve this goal, the health sector will need to respond in four operational areas which are:

1. Collect, analyse and report information to guide health sector decision making.
2. Minimise transmission of the pandemic virus.
3. Reduce morbidity and mortality of the disease.
4. Work across government.

Communication is an integral part of each objective.