5

The problem with a pandemic is that you do not know what it is until it comes. Viruses mutate all the time. Our planning has always been based on a severe-case scenario and we can scale back from that.¹

Pandemic planning and preparedness

Planning for pandemic influenza

- 5.1 It is impossible to predict when the next pandemic will occur, how severe it will be or how long it will last.² Australian authorities are planning for the possibility that the next pandemic will be influenza.
- 5.2 The WHO lists the H5N1 (Avian Influenza or bird flu) virus as having pandemic potential, because it continues to circulate widely in some poultry populations, most humans likely have no immunity to it, and it can cause severe disease and death in humans.³
- 5.3 Other types of animal influenza viruses of concern to the WHO include avian H7 and H9, swine H1 and H3 viruses, and the H2 virus. The WHO advises that pandemic planning should consider risks of emergence of a variety of influenza subtypes from a variety of sources.⁴
- 1 Ms Megan Morris, First Assistant Secretary, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 20 March 2012, p. 5.
- 2 Department of the Prime Minister and Cabinet, National Action Plan for Human Influenza Pandemic, p. 4, <u>http://www.dpmc.gov.au/publications/pandemic/index.cfm</u>, viewed on 7 January 2013.
- 3 World Health Organization, Avian Influenza, <u>http://www.who.int/mediacentre/factsheets/avian_influenza/en/index.html</u>, viewed on 15 February 2013.
- 4 World Health Organization, *Avian Influenza*, <u>http://www.who.int/mediacentre/factsheets/avian_influenza/en/index.html</u>, viewed on 15 February 2013.

5.4	Dr Rodney Givney, of the University of Newcastle, agreed that H5NI could be the next pandemic:
	H5N1 influenza has fallen out of the news but it is still endemic in Indonesia. It still kills people regularly. We would be in terrible straits if that disease became readily transmissible between people. That would be our next pandemic, and in fact it is the one that we are expecting. ⁵
5.5	Dr Jenny Cupit, of the Department of Agriculture, Fisheries and Forestry (DAFF), told the Committee that DAFF was keeping a watch on animals coming into Australia from nearby northern countries such as PNG, which may pose a risk of carrying disease:
	In that area we are primarily looking at the influenza viruses, avian influenza in particular, but also swine flu and those types of conditions. Arboviruses are pretty important for us to be watching and monitoring because they can actually be transmitted from animals into humans. Diseases in pigs, such as classical swine fever and rabies are very important ones, along with Newcastle disease. So, what we are focussing on in most of these areas in our near neighbours, are the productions animals – primarily pigs and poultry and in some cases cattle – and looking at the diseases that they carry that can influence or infect humans. ⁶
5.6	The Commonwealth Government has developed a number of different pandemic plans across a number of agencies, aimed at preparing Australia for the next influenza pandemic.
5.7	Two of the primary Commonwealth pandemic influenza plans include:
	 the Australian Health Management Plan for Pandemic Influenza (AHMPPI); and
	 the National Action Plan for Human Influenza Pandemic (NAP).
5.8	The AHMPPI and NAP are discussed in more detail in Chapter 2. Other Commonwealth plans in place include, but are not limited to, the following:
	 National Pandemic Influenza Airport Border Operations Plan (FLUBORDERPLAN 2009) – prepared by DoHA;⁷
5	Dr Rodney Givney, Infectious Diseases Physician and Clinical Microbiologist, University of
6	Newcastle, <i>Official Committee Hansard</i> , Canberra, 25 May 2012, p. 7. Dr Jenny Cupit, Acting Chief Veterinary Officer, Department of Agriculture, Fisheries and Forrestry, <i>Official Committee Hansard</i> , Canberra, 25 May 2012, p. 28.

⁷ Department of Health and Ageing, FLUBORDERPLAN, February 2009, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/fluborderplan</u>, viewed on 9 January 2013.

- National Health Emergency Response Arrangements (NatHealth Arrangements – November 2011) – prepared by the Australian Health Protection Committee (AHPC)⁸; and
- Commonwealth Government Action Plan for Influenza Pandemic prepared by the Commonwealth Government Deputy Secretaries' Interdepartmental Committee on Influenza Pandemic Prevention and Preparedness.⁹
- 5.9 These plans are based on international and national best practice, and are informed by the expertise of the WHO, Australian infectious disease advisory groups, and other relevant stakeholders.
- 5.10 In addition to the Commonwealth pandemic plans, each state and territory government has developed a separate plan to respond to an influenza pandemic in Australia. The state and territory plans are designed to be complementary to the Commonwealth plans for pandemic influenza.
- 5.11 This report does not propose to provide an exhaustive list of all pandemic plans in place throughout the Commonwealth, state and territory government. A full investigation of all pandemic plans in place was not possible, due to the scope of this inquiry.

Committee comment

- 5.12 There are numerous Commonwealth, state and territory plans in place which inform the way in which both tiers of government, in conjunction with local government, private industry, non-government entities and the general public, should respond in the event of pandemic influenza in Australia.
- 5.13 The Committee is encouraged to note that despite the number of pandemic plans in place, the Commonwealth and state and territory government plans generally appear to be linked and designed to be read in conjunction with each other. Each Commonwealth plan outlines the context in which it was created and how it fits in with other plans.
- 5.14 However, given the large number of pandemic plans in place, the Committee is apprehensive about how effectively the links between the

⁸ Department of Health and Ageing, National Health Emergency Response Arrangements, November 2011, p. 4, <u>http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-response-arrangement-nov11</u>, viewed 9 January 2013.

⁹ See Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. 10, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

relevant Commonwealth government agencies, and the links between the Commonwealth and state and territory governments, would actually operate in practice.

5.15 The Committee considers the important issue of coordination in a broader context in Chapter 6.

Past pandemic experiences

- 5.16 The Commonwealth, state and territory governments test their ability to protect Australians from potential and actual pandemics by conducting simulations and by responding to and learning from actual infectious disease outbreaks in Australia.
- 5.17 Ms Megan Morris, of DoHA, told the Committee that DoHA responded to all pandemics by acting initially on the assumption that the pandemic was severe:

I think the experience a few years ago when we did have a pandemic was that, yes, we used our pandemic plan [AHMPPI] from day one. Once it was obvious that it was not severe, we were able to adjust. But the assumption at the beginning is: 'Go straight into the things you need to do. Don't stop and think about it, and ask around and look at how many people are dying first.' We go for severe and work back from there if we need to adjust.¹⁰

5.18 Dr Jennifer Firman, also of DoHA, agreed that best practice was to treat any pandemic as severe until it was assessed properly:

If you do not know the severity, you do not get a second go to say, 'I wish that I'd reacted more vigorously in the first instance,' because it is a bit late then. You actually have to be ready for any level of severity at that point, and you have to be able to assess it quickly. Then, when you know, you can then scale your response appropriately.¹¹

5.19 Professor Adrian Sleigh, of the Australian National University, outlined some of the recent disease threats experienced by Australia, and current emerging disease threats:

Just in the last 10 years, as I mentioned earlier, we have dealt with SARS, an avian flu pandemic, human flu, equine flu and Hendra

¹⁰ Ms Megan Morris, First Assistant Secretary, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 20 March 2012, p. 5.

¹¹ Dr Jennifer Ruth Firman, Principal Medical Adviser, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 20 March 2012, p. 40.

within Australia. We have learnt so much from each of those. On our doorstep we have multidrug-resistant TB threatening us from the Western Province of Papua New Guinea, Denge haemorrhagic fever ever expanding throughout the region, malaria, Japanese B encephalitis and many other threats.¹²

5.20 Dr Paul Armstrong, of the Western Australian Department of Health, was of the view that Australia's system of infectious disease control and ability to respond to pandemics had not yet been fully tested:

As I said before, there has been an element of luck in the past, with SARS in particular. We only had one case of SARS in Australia and that was diagnosed six months after SARS evaporated from the world. If we had had a SARS outbreak like the one Toronto had, the drive to fix the system would be much stronger. I think there is a fair element of luck there – we have not really had to test our system in a very robust way. The more recent pandemic, as we all know, was a fairly mild pandemic. It did not stress the country as much as more severe pandemics would have tested it.¹³

5.21 Dr Armstrong argued that the best approach to pandemic planning was to strengthen the national approach to communicable disease control now, rather than wait for the system to be proven inadequate:

One approach you could take would be to anticipate the risk and bolster the national approach to communicable disease control now. The alternative is, as has happened in other countries, to wait for something to occur which proves the system inadequate and then bolster it. From the risk management perspective, I think the former is a better approach.¹⁴

Pandemic planning exercises

- 5.22 One way in which Australia learns from past pandemic experiences is to undergo planning exercises, to assess the capability of pandemic plans created to guide Australia's future responses to pandemic events.
- 5.23 Since the development of the AHMPPI and NAP, the Commonwealth, state and territory governments have held simulation exercises (Exercise

¹² Professor Adrian Sleigh, Professor of Epidemiology and Population Health, Australian National University, *Official Committee Hansard*, 25 May 2012, p. 2.

¹³ Dr Paul Armstrong, Director, Communicable Disease Control Directorate, Department of Health, Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 7.

¹⁴ Dr Paul Armstrong, Director, Communicable Disease Control Directorate, Department of Health, Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 7.

Cumspton in 2006 and Exercise Sustain in 2008) designed to test the effectiveness of pandemic influenza plans.

5.24 Ms Morris told the Committee that the Department had been planning for a pandemic for some years and was always reviewing its preparedness:

The Office of Health Protection is constantly looking at our preparedness and is in contact with the states talking to them because it is a shared response what we do in the case of a pandemic. We have various Commonwealth-state structures and Commonwealth structures whereby we assess our readiness for it.¹⁵

5.25 Mr Simon Cotterell, of DoHA, stated that governments considered what level of response was appropriate in certain events, as part of its planning processes:

It is very difficult to close down schools at the drop of a hat. You have to be really sure that it is worth the pain because you take all the parents out of their workplaces and affect the economy badly by doing that. A judgment has to be made and it is quite difficult. That is what a lot of time was spent discussing during [Exercise] Cumpston.

The other issue is borders. Everyone's instinct is to shut down the borders but that has been shown time and again not to be effective because, by the time the pandemic has started, the disease is already in the country and we would cut off so many supply lines, including those for essential medications, that it would not be worth it. Those issues, when you exercise, all get discussed and then hopefully they have been through the wringer enough when the actual event happens for good judgments to be made.¹⁶

5.26 Dr Gary Lum, of DoHA, told the Committee that conducting exercises facilitated knowledge-sharing and knowledge progression. He explained that the Commonwealth took an all-hazards¹⁷ approach to managing emergencies:

- 16 Mr Simon Cotterell, Assistant Secretary, International Strategies Branch, Portfolio Strategies Division, Department of Health and Ageing, Official Committee Hansard, Canberra, 20 March 2012, p. 6.
- 17 'All Hazards Approach' is defined further by the Attorney-General's Department, as concerning arrangements for managing the large range of possible effects of risks and emergencies, noting that a large range of risks can cause similar problems and such measures as warning, evacuation, medical services and community recovery will be required during and following emergencies. For more see *Emergency Management Approaches*, http://www.em.gov.au/Emergencymanagement/Pages/EmergencyManagementApproache

¹⁵ Ms Megan Morris, First Assistant Secretary, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 20 March 2012, p. 5.

While we do spend a lot of time thinking about outbreaks and pandemics of disease and infectious diseases, in a lot of the areas in state and territory health departments and in the Australian government health department we have now taken an all-hazards approach to managing emergencies...

...Through exercising we can also continue to progress that information so that it is not just sitting somewhere and not being shared.¹⁸

5.27 Ms Morris explained that exercises were regularly undertaken across all tiers of government:

I would add that those exercises are sometimes within the health system, and sometimes whole-of-Commonwealth-government or whole-of-Commonwealth-government-state, but there is a rolling program of exercises across the country within states and at the Commonwealth level.¹⁹

Exercise Cumpston 06

- 5.28 *Exercise Cumpston 06* was undertaken in 2006. This was the largest health simulation exercise ever undertaken in Australia at the time and the first major exercise conducted by DoHA. The aim of the exercise was to test and validate the capacity and capability of the Australian health system to detect and respond to a pandemic.²⁰
- 5.29 The report into *Exercise Cumpston* further explained the objectives and benefits of undertaking the exercise:

The community expects government to provide leadership in preventing disease outbreaks and, in the event of an outbreak, to respond and assist recovery quickly and effectively. Exercises provide a means to train, practise and confirm necessary capabilities in a less risky environment and to identify and address any gaps. As well as allowing individuals and teams to demonstrate and apply knowledge, skills and abilities, they enable

s.aspx, viewed 18 February 2013.

¹⁸ Dr Gary Lum, Assistant Secretary, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 25 May 2012, p. 45.

¹⁹ Ms Megan Morris, First Assistant Secretary, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 25 May 2012, p. 46.

²⁰ Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. 1, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

government and its non-government and private sector partners to test plans, policies and procedures, and to trial new approaches.²¹

- 5.30 *Exercise Cumpston* was undertaken in accordance with the AHMPPI to identify and address any gaps in the plan. The exercise also applied governance aspects of the NAP and state and territory plans.²²
- 5.31 The report into *Exercise Cumpston* produced 12 key recommendations, including the need to improve whole-of-government and cross-jurisdictional communications mechanisms to ensure consistent and coordinated delivery of public messages in a pandemic.²³

Exercise Sustain 08

- 5.32 In 2008, the COAG Pandemic Exercise Program 2008, *Exercise Sustain 08*, was undertaken as the first exercise to assess national, whole-of-government preparedness to respond to and recover from a human influenza pandemic widespread across Australia.²⁴
- 5.33 *Exercise Sustain* comprised three discussion exercises and a functional exercise, involving COAG and senior representatives from the Commonwealth Government, state and territory governments and the Australian Local Government Association (ALGA).²⁵
- 5.34 The exercise also tested the National Influenza Pandemic Public Communications Capability, developed out of the recommendation made in *Exercise Cumpston* for improved communication mechanisms.²⁶
- 5.35 *Exercise Sustain* focussed on the Australian Phase 6b (Sustain) of a pandemic and tested roles and responsibilities across all levels of

²¹ Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. iii, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

²² Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. 1, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

²³ Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. 3, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

²⁴ Council of Australian Governments, *Exercise Sustain 08 Overview*, 2009, p. 7, http://www.dpmc.gov.au/publications/pandemic/index.cfm, viewed on 10 January 2013.

²⁵ Council of Australian Governments, *Exercise Sustain 08 Overview*, 2009, p. 7, http://www.dpmc.gov.au/publications/pandemic/index.cfm, viewed on 10 January 2013.

²⁶ Council of Australian Governments, *Exercise Sustain 08 Overview*, 2009, p. 16, <u>http://www.dpmc.gov.au/publications/pandemic/index.cfm</u>, viewed on 10 January 2013.

government in maintaining and supporting social and economic functioning and recovery during the Sustain phase.²⁷

5.36 The report produced following the exercise noted that an influenza pandemic would pose a significant challenge across all tiers of government in maintaining effective coordination, public communications and resourcing during the response and recovery phases of a pandemic.²⁸

Committee comment

- 5.37 The Committee commends the ongoing review and planning process in place across the Commonwealth departments, to prepare for pandemic influenza in Australia. This planning process ensures that pandemic plans and emergency management policies are up to date and that coordination and decision-making processes are constantly monitored and reviewed.
- 5.38 It is clear that that the Commonwealth Government, and each state and territory government, has heeded the advice of the WHO and has comprehensively prepared for the possibility of an influenza pandemic. This is evident in the creation of numerous inter-linking plans across the Commonwealth and state and territories for pandemic influenza.
- 5.39 However, the Committee is concerned that planning for a national health emergency involving the spread of infectious disease appears to be solely focussed on pandemic influenza.
- 5.40 The Committee queries whether the current plans for pandemic influenza could be utilised in the event that Australia experiences an infectious disease outbreak of pandemic proportions which is not influenza.
- 5.41 In concluding the report into *Exercise Cumpston*, it was noted that:

... Australia is better prepared than ever to respond effectively to a pandemic, whether it is a human form of the bird flu virus H5N1, a new influenza strain or other major infectious disease outbreak.²⁹

5.42 Reference to another 'major infectious disease outbreak' appears at the end of the report and is not mentioned in any detail throughout that report. This gives the impression that there has been little consideration in planning for a pandemic in Australia, if the pandemic is not influenza.

²⁷ Council of Australian Governments, *Exercise Sustain 08 Overview*, 2009, p. 7, http://www.dpmc.gov.au/publications/pandemic/index.cfm, viewed on 10 January 2013.

²⁸ Council of Australian Governments, *Exercise Sustain 08 Overview*, 2009, p. 7, http://www.dpmc.gov.au/publications/pandemic/index.cfm, viewed on 10 January 2013.

²⁹ Department of Health and Ageing, National Pandemic Influenza Exercise – Exercise Cumpston 06 Report, 2007, p. 63, <u>http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/cumpston-report-1</u>, viewed on 10 January 2013.

- 5.43 Troubling also to the Committee is that the Department of the Prime Minister and Cabinet (PM&C) only has a defined coordination role in relation to pandemic influenza (see Chapter 2 for further information on PM&C's role). The Committee is concerned that the highest level of Commonwealth coordination during a national health crisis is only usually triggered in circumstances of pandemic influenza.
- 5.44 While the Committee makes no predictions as to what the next infectious disease threat to Australia might be, the Committee seeks assurance that the pandemic plans in place across the Commonwealth can be adapted to guide any national response required to any infectious disease threat that Australia may face. Presumably, an outbreak of infectious disease other than influenza manifests itself and spreads differently, and therefore requires a different response than would be required in an influenza outbreak.
- 5.45 The Committee therefore recommends that the Australian Government test Australia's ability to respond to a widespread outbreak of infectious disease other than influenza.

Recommendation 9

5.46 The Australian Government test Australia's ability to respond to a widespread outbreak of infectious disease other than influenza, by undertaking a pandemic exercise across the relevant Commonwealth, state and territory government agencies.

Consumer engagement during infectious disease outbreaks

- 5.47 The Committee has been told that consumer engagement is vital in ensuring that Australia is well equipped to respond to a widespread outbreak of infectious disease.
- 5.48 Ms Carol Bennett, of the Consumers Health Forum of Australia, argued that consumers should be consulted during any process which asked them to change their behaviour:

Involving consumers in decision making, collaborating with them to develop solutions and empowering them to make decisions all contribute to the community accepting and taking on the behaviours which public health experts and epidemiologists would like them to carry out, in a way that actually works for consumers.³⁰

- 5.49 Australia's response to HIV/AIDS in the 1980s was used as an example to highlight how the public could be engaged to take action in response to a disease outbreak of national concern.
- 5.50 Professor Geoffrey Shellam, from the University of Western Australia, told the Committee that Australia responded rapidly to the threat posed by HIV/AIDs. Professor Shellam emphasised how a rapid and robust research response had been augmented by community engagement:

We should be very proud of what was achieved in the Australian response to HIV-AIDS. The rapidity of our response is one of our great success stories. We are very well served by a substantial basis of research on immunology and virology, which put us in a very strong position to respond to a viral disease which attacked the immune system. ... Also what was quite remarkable was the setting up of community groups, which helped particularly the gay communities develop policy acceptable to them. This meant that public health messages were promulgated to hit the right target, as it were, because communities were willing and interested in responding to them. There was a real community involvement, not only from scientists and medical practitioners but also from affected communities.³¹

5.51 On the other hand, Ms Linda Forbes of the Australian Federation of AIDS Organisations, argued that the Grim Reaper campaign of the 1980s was largely unsuccessful because it frightened members of the public and created stigmatisation:

> There has been no public health community education campaign about HIV since the eighties and the Grim Reaper campaign, which was basically unsuccessful because it made people frightened of HIV who had no reason to fear and it undermined efforts in the gay community to develop programs to get people to test. It created stigmatisation of gay people and complicated things. We are proposing that there should be a public health community education campaign again in Australia that is

³⁰ Ms Carol Bennett, Chief Executive Officer, Consumers Health Forum of Australia, *Official Committee Hansard*, Canberra, 24 August 2012, p. 10.

³¹ Professor Geoffrey Randolph Shellam, Professor of Microbiology, University of Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, pp. 8-9.

generalised, but it needs to be very, very carefully done and nothing like the Grim Reaper campaign.³²

5.52 The Committee was told that the *Review of the management of adverse events associated with Panvax and Fluvax* (the Horvarth review), conducted by Professor John Horvath AO, provided some useful lessons about engaging with the consumer. The report considered the national response to the 2010 influenza vaccine adverse event reporting.³³ Ms Bennett told the Committee:

> [The Horvath review] found that there was a considerable lack of understanding among the public and health professionals about when they should report an adverse reaction. After there was sufficient data to identify that there was a problem, some health professionals and consumers felt that they were not sufficiently informed of events around the suspension of the vaccine program. The review called for a protocol for taking program action in the event of issues with vaccines, and that includes informing health professionals, consumers and the media. It wanted that to be developed and agreed with Commonwealth, state and territory authorities.³⁴

5.53 Ms Bennett told the Committee how poorly planned, coordinated and executed messaging around the flu vaccination and adverse reactions in children had caused confusion in the community. A result of this confusion was that people lost confidence in vaccination programs:

> That is what we are concerned about, with people saying, 'I'm not sure I want to have the Fluvax next year or give it to my children because there was this outbreak last year.' The Horvath review was quite instrumental in identifying the problems that existed between various coordinating bodies and it made recommendations around how that could be addressed in the future.³⁵

5.54 Outlining the importance of consumer engagement in planning for and responding to infectious disease outbreaks, Ms Bennet explained:

³² Ms Linda Forbes, Manager, Policy and Communications, Australian Federation of AIDS Organisations, *Official Committee Hansard*, Cairns, 2 August 2012, p. 7.

³³ Professor John Horvath, Review of the management of adverse events associated with Panvax and Fluvax, Final Report 10 March 2011. See Ms Carol Bennett, Chief Executive Officer, Consumers Health Forum of Australia, Official Committee Hansard, Canberra, 24 August 2012, p. 10.

³⁴ Ms Carol Bennett, Chief Executive Officer, Consumers Health Forum of Australia, *Official Committee Hansard*, Canberra, 24 August 2012, p. 10.

³⁵ Ms Carol Bennett, Chief Executive Officer, Consumers Health Forum of Australia, *Official Committee Hansard*, Canberra, 24 August 2012, p. 11.

They bring their own expertise to these discussions, they are the experts in what will work for them and what will be acceptable to the community, and they know firsthand what the barriers are on the ground that prevent them from making the decisions and exhibiting the behaviours that public health experts consider to be the right ones.³⁶

Committee comment

- 5.55 The Committee sees that the Commonwealth Government plays an important role in informing and empowering the consumer about infectious disease issues in Australia and overseas. Educating the consumer is vital if Australia is to prevent or control the importation of infectious disease across international borders, and control the spread of infectious disease within Australia in the event of an outbreak.
- 5.56 In the event of an infectious disease outbreak in Australia, the Committee recognises that consumers need to be informed so that they understand what their responsibilities are, and what actions they can take to prevent themselves and their families from being infected, and to limit spread of the disease.
- 5.57 Evidence presented to the Committee indicates that there is significant scope for the development of better communication strategies to ensure that consumers are well informed in the event of a disease outbreak. The Committee supports the need for DoHA, in consultation with consumers and the relevant federal, state and territory agencies, to develop a consistent communication strategy to be used in the event of a disease outbreak that will ensure that consumers are provided with information that is reliable, up-to-date, clear and readily available through a range of media.
- 5.58 The Committee considers that during pandemic planning exercises, consumers should be engaged and consulted to test the effectiveness of any national communication strategy developed as part of any pandemic plan.

³⁶ Ms Carol Bennett, Chief Executive Officer, Consumers Health Forum of Australia, *Official Committee Hansard*, Canberra, 24 August 2012, p. 10.

Recommendation 10

5.59 The Australian Government, in consultation with consumers and other relevant federal, state and territory agencies, develop a national communication strategy for consumers to be used in the event of an infectious disease outbreak.

Recommendation 11

5.60 The Australian Department of Health and Ageing consult with members of the general public or representatives of health consumers in the pandemic planning process, including in pandemic exercises designed to test the ability of government to respond to a pandemic event. Consumer involvement should include testing the ability of any communication strategy designed to inform and engage consumers about a pandemic event.

Vaccine stockpiles

- 5.61 Accumulating and maintaining a useful vaccine stockpile in preparation for a pandemic event is a complex component of pandemic planning.
- 5.62 A National Medical Stockpile (NMS) is held in Australia, containing the national strategic reserve of essential vaccines, antibiotics and antiviral drugs, chemical and radiological antidotes, and personal protective equipment. DoHA states on its website that the NMS also holds sufficient medical equipment to administer pandemic influenza vaccine to the Australian community.³⁷
- 5.63 The NMS is intended to supplement existing stocks of medical equipment and drugs kept in the Australian hospital system to ensure that these supplies are readily available, and in sufficient quantities, in the event of a public health incident in Australia. The Australian Health Protection Committee (AHPC) and the Chief Medical Officer of Australia (CMO)

³⁷ Department of Health and Ageing, Health Emergency Preparedness Response: National Medical Stockpile Fact Sheet, <u>http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strategbio-factsht_stckpile.htm</u>, viewed 19 February 2013.

make all policy decisions regarding the distribution of the NMS in the event of an influenza pandemic.³⁸

5.64 DoHA told the Committee that the NMS had been recently reviewed. Ms Maria Jolly, of DoHA, explained that the review considered the overall management of the medical stockpile, including its structure and governance:

The review suggested that there needs to be some work done on inventory management, how stock is held, how stock is chosen and deployed, what sort of purchasing models government might consider, what are the sorts of arrangements that you would have with states and territories, how those arrangements might work and what is the relationship between those sorts of decisions and the pandemic planning arrangements that you have just heard about. It goes to the overall structure, governance and arrangement of the medical stockpile.³⁹

- 5.65 Professor Adrian Sleigh, of the Australian National University, was involved with an expert working group reporting to the Prime Minister and Cabinet through the Prime Minister's Science, Engineering and Innovation Council (PMSEIC) in 2009. The PMSEIC produced a report which Professor Sleigh provided to the Committee, *Epidemics in a Changing World*. ⁴⁰
- 5.66 Professor Sleigh told the Committee that the fourth major recommendation the expert working group made was for Australia to maintain vaccine production capacity, particularly for influenza and also the niche vaccines.⁴¹
- 5.67 As manufacturing vaccines is a worldwide business, the Committee was told that it was not possible for Australia to be completely self-sufficient in manufacturing and stockpiling vaccines, to avoid shortages during pandemics. Dr Firman explained:

³⁸ Department of Health and Ageing, Health Emergency Preparedness Response: National Medical Stockpile Fact Sheet, <u>http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strategbio-factsht_stckpile.htm</u>, viewed 19 February 2013.

³⁹ Ms Maria Jolly, Assistant Secretary, Health Protection and Surveillance Branch, Office of Health Protection, Department of Health and Ageing, *Official Committee Hansard*, Canberra, 20 March 2012, pp. 6-7.

⁴⁰ Prime Minister's Science, Engineering and Innovation Council (PMSEIC) Expert Working Group, Epidemics in a Changing World, 5 June 2009, http://www.innovation.gov.au/Science/PMSEIC/Pages/PapersandPublications.aspx.

⁴¹ Prime Minister's Science, Engineering and Innovation Council (PMSEIC) Expert Working Group, Epidemics in a Changing World, 5 June 2009, p. xi, http://www.innovation.gov.au/Science/PMSEIC/Pages/PapersandPublications.aspx.

Very little pharmaceuticals are manufactured in Australia. I think we have influenza and Q fever ones manufactured in Australia. As you can imagine, pharmaceutical manufacturing is a worldwide business; it is not individual countries making vaccines usually and indeed that is the case for Australia. Australia is a very small market. I am trying to imagine a multinational who would think that Australia is a good place to set up their manufacturing plant for that purpose and I cannot think of one at the moment. As that would occur, we are part of that worldwide market.⁴²

5.68 Dr Firman further explained that even the USA, which has a solid base of manufacturing pharmaceuticals, could end up short of vaccines:

The USA is regularly very short of different drugs and they have quite a robust manufacturing basis. It is a very multifactorial, difficult issue when it comes to shortages and it goes way beyond just the fact that you do not have a manufacturing plant on your shores.

5.69 Dr David Smith, Chair of the Public Health Laboratory Network (PHLN), told the Committee that supply would always be a problem in the manufacturing of vaccines:

> There has been a discussion internationally in terms of flu vaccines and it is to do with the total manufacturing capacity and how you build that, which really depends on the use of the seasonal vaccines to have that manufacturing capacity that can then be diverted to pandemic vaccines. There is also a lot of research work going into how you make better vaccines that give longer term protection and better cross- protection so that you are less dependent on suddenly producing new vaccines—but supply will always be a problem even with seasonals. If one of the manufacturers has a regulatory failure or a failure of a run, suddenly there is a two or three month delay in international supplies.⁴³

5.70 Dr Smith said that stockpiles had a finite lifespan. However, he noted that the ability to deliver treatment early to people could make a huge difference in the management of an individual and also the overall management of a disease outbreak.⁴⁴

⁴² Dr Jennifer Firman, Principal Medical Adviser, Office of Health Protection, Department of Health and Ageing,, *Official Committee Hansard*, Canberra, 25 May 2012, pp. 47-48.

⁴³ Dr David Smith, Chair, Public Health Laboratory Network, *Official Committee Hansard*, Canberra, 25 May 2012, p. 48.

⁴⁴ Dr David Smith, Chair, Public Health Laboratory Network, *Official Committee Hansard*, Canberra, 25 May 2012, p. 48.

Committee comment

- 5.71 The Committee recognises that the stockpiling of vaccines for use in a pandemic event in Australia is complex and involves balancing a number of factors, including competing in a global pharmaceuticals market.
- 5.72 The Committee notes the recommendation of the PMSEIC Expert Working Group on *Epidemics in a Changing World*, that Australia should have a selfsufficient vaccine development and production capacity. The Committee supports this recommendation, with its focus on Australia developing its onshore development and production capacity for vaccines such as contemporary influenza vaccines and other niche vaccines, in line with Australia's needs.

Recommendation 12

5.73 The Commonwealth Government support the growth of vaccine development and production capacity for vaccines in Australia, to enhance Australia's preparedness to respond to outbreaks of infectious disease in Australia, and in particular, pandemic influenza.

Australia's pandemic workforce

- 5.74 The ability of the Commonwealth, state and territory governments to respond to the next pandemic event in Australia is contingent on whether Australia's health workforce can sustain the appropriate level of screening, surveillance and control measures throughout the course of the event.
- 5.75 Training Australia's health workforce in preparation for the next pandemic or widespread infectious disease outbreak is only one facet of pandemic planning. The Committee heard that equally important is the need for government to review the sustainability of the workforce, in anticipation of a long term pandemic.

Training

5.76 Professor Sleigh told the Committee that the PMSEIC expert working group referred to above had also called on the Commonwealth to maintain its human capacity to respond to epidemics:

We thought that it was very important for Australia to maintain its human capacity to combat epidemics, and this involves workforce planning and the training and maintenance of first responders: epidemiologists who are trained to investigate epidemics; pathologists, particularly veterinary pathologists, and microbiologists are key members of the first-responding workforce and we need to maintain an adequate number and distribution and appropriate age and experience mix of that workforce.⁴⁵

5.77 Professor John McBride, from James Cook University, advised that while there was an increase in medical graduates in Australia, this did not necessarily translate into more microbiologists, infectious-disease physicians and other related experts:

> There is now a big bottleneck with all these young interns, so they are getting intern jobs; but in terms of jobs opening up for training in specialities, the state government controls those numbers and has to pay the bills for training these people to become infectiousdisease specialists and microbiologists or infection control practitioners, or whatever we need. So there is a bit of tension. We have lots of opportunities to train people in these specialities, but the funding for those positions is restricted. The Commonwealth, through the specialist training program, is feeding money in, so that is funding some of the opportunities; but clearly there needs to be a solution to training our specialist workforce for the future, because I think there is a looming crisis with the medical student numbers and so on. We are graduating enough doctors but we are not training them in a post-graduate sense.⁴⁶

5.78 Professor Geoffrey Shellam, from the University of Western Australia, speaking of the proposed need for a national centre for disease control (see Chapter 6 for this discussion), argued that national training centres like the Australian National University's National Centre for Epidemiology and Population Health (NCEPH) provided the educational infrastructure needed to underpin Australia's ability to respond to outbreaks of disease on a national level. He said:

> I think it is also important to recognise the need for educational infrastructure to underpin any national centre. One example I can give is that the NCEPH, the National Centre for Epidemiology and Population Health, gave a course in Canberra that provided training in epidemiology nationally [Master of Applied

⁴⁵ Professor Adrian Sleigh, Professor of Epidemiology and Population Health, Australian National University, *Official Committee Hansard*, Canberra, 25 May 2012, p. 2.

Professor John McBride, Professor of Medicine, Infectious Diseases Physician, School of Medicine and Dentistry, James Cook University, *Official Committee Hansard*, 2 August 2012, p. 21.

Epidemiology]. People went out to work in the states and took that expertise back and enriched the health departments and hospitals around the country. The funding for the centre was in difficulty and the centre closed. It has re-established itself in another guise just recently. But we need these national centres to be robust and ongoing if we are to provide the skills that will underpin Australia's ability to respond to outbreaks of disease. ⁴⁷

- 5.79 The Committee was told that the Master of Applied Epidemiology (MAE) course at the Australian National University (ANU) was the central national training program for epidemiologists, who were trained to be able to respond directly to epidemic investigations.⁴⁸
- 5.80 The Committee heard that Commonwealth funding (sourced from DoHA) for the MAE course was withdrawn in about 2009/2010.⁴⁹ However, the MAE program did not close after funding was withdrawn, as the ANU obtained alternative funding.⁵⁰
- 5.81 A number of roundtable participants agreed that the MAE was an important workforce source, as its graduates were able to immediately undertake public health roles in communicable disease control, having undertaken extensive practical training in the field while studying.⁵¹
- 5.82 Dr Kamalini Lokuge, Medical Epidemiologist at the NCEPH, advised that some of her previous students who studied the MAE had assisted during the H1N1 outbreak:

... during the early stages of the H1N1 outbreak, it was my staff and my students who were largely forming the surveillance and epidemiology capacity in the National Incident Room for the Department of Health and Ageing.⁵²

- 49 Professor Adrian Sleigh, Professor of Epidemiology and Population Health, Australian National University, *Official Committee Hansard*, Canberra, 25 May 2012, p. 11.
- 50 Professor Adrian Sleigh, Professor of Epidemiology and Population Health, Australian National University, Official Committee Hansard, Canberra, 25 May 2012, p. 11. See also, Professor Jonathan Carapetis, Director, Telethon Institute for Child Health Research, Official Committee Hansard, Perth, 8 August 2012, pp. 14-15.
- 51 See Dr Paul Armstrong, Communicable Disease Control Directorate, Department of Health, Western Australia, and Professor Jonathan Carapetis, Director, Telethon Institute for Child Health Research, *Official Committee Hansard*, Perth, 8 August 2012, pp. 14-15.
- 52 Dr Kamalini Lokuge, Medical Epidemiologist, National Centre for Epidemiology and Population Health, Australian National University, *Official Committee Hansard*, Canberra, 25 May 2012, p. 13.

⁴⁷ Professor Geoffrey Randolph Shellam, Professor of Microbiology, University of Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 11.

⁴⁸ Professor Adrian Sleigh, Professor of Epidemiology and Population Health, Australian National University, *Official Committee Hansard*, Canberra, 25 May 2012, p. 11.

5.83 As a former graduate of the MAE, Dr Armstrong told the Committee that the practical experience he gained through the course was invaluable:

The training that I had as an MAE put me in a perfect position to walk straight into a job in a health department with that expertise. You hit the ground running. That is one of the catchcries of that program. The successful ones around the world are not necessarily based at a university, where they are governed by the vagaries of funding and what have you, but are government funded and based programs, like the one in America run by the Centre for Disease Control. There are different models of that. The one that we have in Australia is a university based one, and it was affected by a funding decision of the Commonwealth government not to subsidise that program.⁵³

5.84 Professor Jonathan Carapetis, Director of the Telethon Institute for Child Health Research, told the Committee that as the Commonwealth no longer subsidised the MAE program, it was likely that there would be a reduction in the number of public health professionals graduating from the ANU program:

ANU has managed to keep it going. But in order to do it, an organisation like mine would have to find serious money to get someone in there. Sure, you could go and talk to ANU, but I know that the demand for the course, as a result of that, is reduced, and we do not have a guaranteed supply of these people coming through. The course exists. What we need is the core funding to subsidise enrolments and to ensure that there are a minimum number of people coming through each year.⁵⁴

5.85 On the ANU's webpage, a Master of Philosophy (Applied Epidemiology) is now advertised:

The MPhil (Applied Epidemiology) is a two year research degree that emphases learning-by-doing. The program teaches scholars epidemiology in the field, through coursework and learning in a field placement, such as a health department. The MPhil (App Epid) is Australia's only FETP [Field Epidemiology Training Program] and is part of the international network of Field Training Programs in Epidemiology & Public Health Interventions Network.

⁵³ Dr Paul Armstrong, Director, Communicable Disease Control Directorate, Department of Health, Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 15.

⁵⁴ Professor Jonathan Carapetis, Director, Telethon Institute for Child Health Research, *Official Committee Hansard*, Perth, 8 August 2012, p. 15.

Costs

Field placements will support scholars either as employees, or by providing a tax free scholarship to the student administered through ANU. These tax free scholarships are for \$50,000 annually. Field placements will also cover the costs of scholars travel, accommodation and meals during course block at ANU, which is expected to be \$10,000 over the two years. As the MPhil (App Epid) program is a research degree, there are no tuition costs associated with scholars completing coursework subjects. ANU and field placements will enter a memorandum of understanding outlining these arrangements.⁵⁵

Workforce sustainability

- 5.86 The Committee heard that the long term capacity of Australia's public health workforce may be challenged in the face of a pandemic.
- 5.87 Dr Armstrong told the Committee:

I think we have an adequate public health workforce to manage the day-to-day issues quite well, but it is the issue of when you have your much bigger emergency and then your existing resources are very stretched. That is when there is this need for others in the health workforce to assist ...

... If we get a big pandemic like SARS or influenza, and it is much bigger than the swine flu pandemic – and the risk is there; it is a small risk but it is a definite risk – then our existing resources will be quickly overwhelmed. We need to pay some heed to how we manage that scenario.⁵⁶

5.88 Dr Smith, of the PHLN, told the Committee that the ability to handle increased workloads was reviewed following the H1N1 (swine flu) pandemic in Australia:

> We did an extensive debriefing process after the pandemic in terms of dealing with additional workloads. It is a challenge because what you find, given that we have a certain amount of expertise – particularly high-level, professional expertise – is that gets stretched very thin in those sorts of circumstances. In such a situation you have a much more complex demand process

⁵⁵ Australian National University, *NEW Master of Philosophy (Applied Epidemiology)*, <u>http://nceph.anu.edu.au/education/research-degree/new-master-philosophy-applied-</u> <u>epidemiology</u>, viewed 20 February 2013.

⁵⁶ Dr Paul Armstrong, Director, Communicable Disease Control Directorate, Department of Health, Western Australia, Official Committee Hansard, Perth, 8 August 2012, p. 14.

occurring because people are wanting rapid turnarounds and samples are coming in different ways and often in large numbers.⁵⁷

5.89 Dr Smith explained that the review considered how to develop the skill base necessary to respond to large scale outbreaks, without overresourcing the workforce during periods where there is no pandemic to respond to:

You do not want people who have nothing to do until an epidemic comes along so you really see how you utilise them within those frameworks.⁵⁸

5.90 Dr Smith outlined a number of issues which came out of the review:

- there is a strain on people with highly specialised skills who are placed in high demand during pandemic events;
- highly specialised work is difficult to delegate;
- increasing the use of electronic systems may reduce workloads on individuals who can direct their skills to areas of need;
- engaging private health laboratories to assist government agencies in laboratory work during pandemic events is a complex process and commencing these processes prior to a pandemic event may assist;
- the skill base needed to respond to a pandemic has to exist within the workforce prior to a pandemic event; and
- maintaining a national communication network is extremely important in gaining access to people with the appropriate expertise quickly to meet a particular need.⁵⁹

A public health corp?

- 5.91 Dr Adam Kamradt-Scott, from the University of Sydney, invited the Committee to consider the creation of a national health commission corps, similar to the United States Centers for Disease Control and Prevention.
- 5.92 Dr Kamradt-Scott explained his proposition:

The investment required to create a commissioned corps of public health officers would be modest, as it would draw together existing civilian and military specialists and public health experts

⁵⁷ Dr David Smith, Chair, Public Health Laboratory Network, *Official Committee Hansard*, Canberra, 25 May 2012, p. 37.

⁵⁸ Dr David Smith, Chair, Public Health Laboratory Network, *Official Committee Hansard*, Canberra, 25 May 2012, p. 37.

⁵⁹ Dr David Smith, Chair, Public Health Laboratory Network, Official Committee Hansard, Canberra, 25 May 2012, pp. 37-38.

in a new civil-military partnership. Its ranks would be strengthened by a new generation of trainees and interns, trained under a new national qualification to replace the Master of Applied Epidemiology that the federal government only recently and, in my professional view, very short-sightedly ceased funding. Members of the corps could be deployed throughout the states and territories to assist health departments and agencies in health promotion and health protection activities. The bulk of the corps could conceivably be located in central locations such as Darwin or regionally based, from which officers could be deployed to assist neighbouring countries to respond to public health emergencies and natural disasters.⁶⁰

5.93 In response to this proposed corps, Professor McBride noted there were some differences in how the military operated in the United States, compared to Australia:

There is a lot of talent within the Australian military – I served in the Australian military for a while, so I realise that there are some very good people in the medical corps – but it is a quantum size smaller than the US Army and even as a proportion of our population. I see that there is clearly a potential role for the military, but I do not think it would be as significant as the role of the US military in the CDC. Of course, the military has the advantage of being a national organisation that cuts across state boundaries and has policies and procedures that are national rather than state based.⁶¹

Committee comment

- 5.94 The Committee considers that Australia requires a public health workforce that is able to respond efficiently and appropriately, if faced with a pandemic event.
- 5.95 The Committee notes the views of some infectious disease experts who participated in the roundtable discussions, that Australia has been lucky during recent pandemic threats to our country. The Committee was told that the capacity of Australia's health system has not been tested in a longterm and fast-moving pandemic.

⁶⁰ Dr Adam Kamradt-Scott, Senior Lecturer in International Security Studies, Centre for International Security Studies, University of Sydney, Official Committee Hansard, Cairns, 2 August 2012, p. 19.

Professor John McBride, Professor of Medicine, Infectious Diseases Physician, School of Medicine and Dentistry, James Cook University, *Official Committee Hansard*, 2 August 2012, p. 20.

5.96	Of course, the Committee is hopeful that our health system will never need to be tested to its limits. However, Australia must have a robust and highly skilled workforce in place to respond to a long-term and widespread pandemic, if and when required.
5.97	The Committee heard evidence from a number of public health experts that the MAE from the ANU has been very successful in training epidemiologists and equipping them with the practical knowledge and experience necessary to respond to infectious disease outbreaks on a national or global scale.
5.98	The Committee notes that the Commonwealth subsidy for the program has ceased, however it appears that the program is currently running (albeit with a different name) with funding from alternative sources.
5.99	Although practical experience may be obtained 'on the job' or 'in the field', the Committee supports the proposition that a university course that offers in-the-field training is an ideal training model to ensure Australia's future health workforce is equipped to respond appropriately in a pandemic event.
5.100	The Committee shares the concerns expressed by public health experts working in infectious disease control that the current funding structure of the applied epidemiology course at ANU may over time reduce the number of graduates of the program, thus reducing the capacity of the Australian health workforce to respond to pandemic events in the future.
5.101	The Committee recommends that the Commonwealth review the need to support training courses such as the applied epidemiology course at ANU, as part of a wider assessment of the long-term sustainability of the infectious disease control workforce in Australia, and the capacity of that workforce to respond effectively to a pandemic in Australia.
5.102	The Committee notes the proposal to introduce a commissioned corps of public health officers, of both civilian and military background. In the Committee's view, Australia should be innovative when considering how best to create a more coordinated and sustainable health workforce, which could respond to a national emergency in an organised and rapid way. Accordingly, the Committee encourages the Commonwealth to consult widely with infectious disease experts around Australia, and to consider innovative ideas such as introducing a commissioned corps to lead the response to any national health emergency.

Recommendation 13

5.103 The Australian Government coordinate the development of a highly skilled workforce which can respond effectively to a sustained pandemic in Australia.

Research capacity

- 5.104 Infectious diseases come in many forms, and may develop, change and spread by a number of different means. Some infectious diseases of risk to Australians may be slow to spread and easily controlled with effective surveillance and control measures. Other infectious disease outbreaks may spread rapidly and be harder to control, or may be triggered unexpectedly through environmental factors such as contamination of food or water supply, or climate factors.
- 5.105 Australia relies on infectious disease physicians, epidemiologists, pathologists, microbiologists and other experts to identify and control emerging disease threats of risk to the community.
- 5.106 The Committee was told that targeted and timely research into infectious disease issues of importance to Australia underpins any successful response to emerging disease threats in Australia. Maintaining Australia's capacity to research, innovate and collaborate with international infectious disease experts will help Australia prepare for future disease threats.
- 5.107 Professor Shellam believes that Australia currently has a strong capacity in basic medical and clinical research. He told the Committee this has enabled Australia to respond quickly to emerging disease threats:

We have the ability to respond quickly. The important thing is to recognise that we cannot do research in every single esoteric organism, but we must have the capacity to respond quickly by being in contact with people overseas who are leading research in particular areas. I would argue that it is very important for Australia to maintain internationally competitive research so that we are sitting around the table with other experts and can exchange ideas, even though we may not be strong in that particular area.⁶²

5.108 The Committee was told that grants from the National Health and Medical Research Council (NHMRC) have been used in the past as a means of assisting in the response to pandemic situations:

NHMRC give special grants. They gave them for SARS and they give them in areas of influenza and so on and for rapid response sort of things. That is one means of engaging the research community.⁶³

5.109 Dr Clive Morris, of the NHMRC, advised that one of the agency's research goals from 2010-2012 was to plan for emerging infectious disease threats. Dr Morris told the Committee that NHMRC made targeted calls for research when particular health threats arose:

We maintain the capacity to run urgent calls for research. Over the last 10 years we have done that four times. In 2003 we ran an urgent call for research in response to the SARS epidemic. In 2006 we made an urgent call for research in response to the threat of bird flu – H5N1. And in 2009 we made a very urgent call for research on the swine flu epidemic. When I say 'very urgent', that is against the normal time frame for calling for applications, doing peer review and allocating funding. It is very difficult to do in under four months. We were able to call for applications and have research dollars going out the door within about six weeks. We followed that up with a workshop about six months later. We brought together the researchers we had funded and the policymakers to look at the outcomes of that research.

In 2012 – that is this year – we ran an urgent call for research into the hendra virus. This was in response to concerns that the virus, which is currently limited in its ability to infect humans, may cross the species barrier.⁶⁴

Committee comment

5.110 While conducting innovative research on infectious disease issues is not at the 'front line' of infection control, it forms a necessary backbone to Australia's preparedness to respond to infectious disease issues. Strong

⁶² Professor Geoffrey Shellam, Professor of Microbiology, University of Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 9.

⁶³ Professor Geoffrey Shellam, Professor of Microbiology, University of Western Australia, *Official Committee Hansard*, Perth, 8 August 2012, p. 11.

⁶⁴ Dr Clive Morris, Head, Research Group, National Health and Medical Research Council, Official Committee Hansard, Canberra, 25 May 2012, p. 37.

targeted research on specific disease issues can help inform public policy decisions about infectious disease issues and guide approaches to pandemic planning, thus assisting in protecting the future health of the wider community.

- 5.111 The Committee commends the important research which has been undertaken with support from NHMRC, when Australia was facing disease threats such as SARS, swine flu, and the Hendra virus.
- 5.112 The Committee encourages NHMRC to continue to support innovative research relating to emerging disease threats in Australia and in neighbouring countries, including continuing to make calls for urgent research when the need arises.