

Many issues are realised when dealing with complex infection challenges across borders. We need to remember that with infectious diseases we are dealing with something a little bit different to other areas in the health sector. We are dealing with the intersection of the environments and the lifelines of at least two different organisms. This creates complexity.¹

Background to the inquiry

A globalised society

1.1 In an increasingly globalised society, protecting Australians from the spread of infectious disease across international borders is a complex task for the Commonwealth Government, state governments, non-government entities, and individual consumers.

1.2 The Department of Health and Ageing (DoHA) told the Committee that international travel is on the rise:

International movement of people is becoming easier, quicker and increasingly desired by the people of the rapidly growing economies of Asia. The volume of arrivals into Australia through air travel is forecast to increase by 22.7 per cent over the next five years.²

1.3 Due to its proximity to neighbouring countries and the nature of the border between the Torres Strait Islands and Papua New Guinea,

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

2 Ms Megan Morris, First Assistant Secretary, Office of Health Protection, Department of Health and Ageing (DoHA), *Transcript of Evidence*, Canberra, 20 March 2012, p. 1.

Australia faces a unique challenge in preventing exposure to imported infectious diseases and epidemic or pandemic disease outbreaks.

- 1.4 Professor Tania Sorrell, of the Sydney Institute for Emerging Infectious Diseases and Biosecurity, told the Committee:

When we think about emerging infectious diseases within Australia, we are thinking about what we can do within our own borders—to detect them, to control them et cetera. But we need to recognise that the Asia-Pacific region is quite an important incubator for emerging infectious diseases and for increasing antimicrobial resistance.³

What is infectious disease?

- 1.5 ‘Infectious’ means ‘capable of spreading disease or a disease that is capable of spreading (also known as communicable)’.⁴

- 1.6 In this inquiry, the terms ‘infectious disease’ and ‘communicable disease’ are used interchangeably.

- 1.7 According to the World Health Organization (WHO):

Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another.⁵

- 1.8 An outbreak of an infectious disease could be triggered by a range of factors, including poor population health, poor hospital and medical procedures, contamination of water and food supplies, international travel and trade, and changing climatic conditions.⁶

3 Professor Tania Sorrell, Director, Sydney Institute for Emerging Infectious Diseases and Biosecurity, *Official Committee Hansard*, Canberra, 25 May 2012, p. 4.

4 Australian Health Management Plan for Pandemic Influenza, updated December 2009, <http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/ahmppi-2009-l>, viewed on 7 January 2013, p. 90.

5 World Health Organization, *Infectious Diseases*, http://www.who.int/topics/infectious_diseases/en/, viewed on 27 February 2013.

6 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>, Appendix B Tabled document 5.

- 1.9 An epidemic is 'an outbreak or unusually high occurrence of a disease or illness in a population or area'.⁷ A pandemic is an 'epidemic on a global scale'.⁸
- 1.10 Professor Adrian Sleigh, of the Australian National University, told the Committee that infectious disease outbreaks are complex:
- The situation may be quite unstable and expansive, creating an explosive epidemic such as when we were confronted with SARS and avian influenza, or it may be stable and constrained and be a habitually present problem like tuberculosis in Papua New Guinea. It often has an ecological dimension and often involves predilection for people in poor situations, so that the poor are particularly afflicted.⁹
- 1.11 Infectious disease outbreaks of recent or current global concern include:
- Avian Influenza (referred to as H5N1 or bird flu) – first infected humans in 1997 and continues to pose a threat to public health¹⁰
 - Severe Acute Respiratory Syndrome (SARS) outbreak – 2003¹¹
 - Pandemic influenza (referred to as H1N1 or swine flu) – 2009¹²

7 Department of the Prime Minister and Cabinet, *National Action Plan for Human Influenza Pandemic*, p. 19, <http://www.dpmc.gov.au/publications/pandemic/index.cfm> viewed 7 January 2013.

8 Department of the Prime Minister and Cabinet, *National Action Plan for Human Influenza Pandemic*, p. 19, <http://www.dpmc.gov.au/publications/pandemic/index.cfm> viewed 7 January 2013.

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

10 World Health Organization, *Avian Influenza*, http://www.who.int/mediacentre/factsheets/avian_influenza/en/index.html viewed 26 February 2013.

11 World Health Organization, *Severe acute respiratory syndrome (SARS)*, http://www.who.int/csr/don/archive/disease/severe_acute_respiratory_syndrome/en/index.html viewed on 11 February 2013. See also Department of Health and Ageing, *Severe acute respiratory syndrome (SARS)*, <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-sars-index.htm> viewed 11 February 2013.

12 Department of Health and Ageing, *History of pandemics*, <http://www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/history-1#2009> viewed 11 February 2013. See also *Pandemic (H1N1) 2009*, <http://www.who.int/csr/disease/swineflu/en/index.html> viewed 11 February 2013.

Adoption of inquiry

- 1.12 One of DoHA's primary objectives in 2010-2011 was:
- ... [to] strengthen the nation's capacity to identify, monitor and implement effective and sustained responses to health threats or emergencies, thereby protecting public health. This includes mass casualty events, communicable disease outbreaks, terrorism, natural disasters and environmental hazards.¹³
- 1.13 After reviewing DoHA's 2010-2011 annual report, the Committee resolved, pursuant to Standing Order 215(c), to inquire into and report on *Health issues across international borders*.
- 1.14 To support its inquiry, the Committee convened a series of roundtable discussions to learn about the challenges for population health in Australia.
- 1.15 The Committee reviewed Australia's screening, surveillance and control practices for infectious diseases, having regard to the roles and responsibilities of Commonwealth, state and territory governments and non-government entities, and coordination of their activities in Australia and across regional borders.
- 1.16 Terms of Reference for the inquiry (p. x) were developed to encourage wide-ranging discussion and to allow full exploration of all relevant issues.

Related inquiries

Delegation to Papua New Guinea and the Solomon Islands

- 1.17 On Thursday 18 March 2010, the Australian Parliamentary Committee Delegation to Papua New Guinea and the Solomon Islands tabled its report on the roundtable forum on regional health issues entitled *Regional health issues jointly affecting Australia and the South Pacific*.¹⁴
- 1.18 The report detailed a visit by a delegation of members from the House of Representatives Standing Committee on Health and Ageing, to Papua New Guinea (PNG) and the Solomon Islands, where discussions

13 Department of Health and Ageing, *Annual Report 2010-2011*, p. 327.

14 House of Representatives Standing Committee on Health and Ageing (HAA), *Regional health issues jointly affecting Australia and the South Pacific: Report of the Australian Parliamentary Committee Delegation to Papua New Guinea and the Solomon Islands*, March 2010, http://www.apf.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=haa/./pacifichealth/report.htm

canvassed a range of regional health issues jointly affecting Australia and the South Pacific.

1.19 Chair of the delegation, Mr Steve Georganas MP, observed:

The delegation afforded a unique and valuable opportunity for parliamentarians to learn more about the health system and health services delivery in neighbouring countries and to strengthen the bilateral relationship with two countries with which we have longstanding and important ties.¹⁵

1.20 A number of infectious disease issues facing the Torres Strait Islands, PNG and the Solomon Islands were identified during the visit. The Committee considered Australia's role in preventing the spread of infectious disease within these countries and across regional borders, noting the frequent cross-border movements between PNG and the Torres Strait Islands, and Australia's proximity to PNG and the Solomon Islands.

1.21 The Committee determined to explore these themes further as part of the current inquiry into *health issues across international borders*, with a focus on the infectious disease issues faced by PNG and the Torres Strait Islands, and the impact of free movement of people between these regions.

Senate inquiry into antimicrobial resistance

1.22 On 29 November 2012, the Senate referred the following matter to the Senate Finance and Public Administration Committees for inquiry and report: *Inquiry into the progress in the implementation of the recommendations of the 1999 Joint Expert Technical Advisory Committee on Antibiotic Resistance*.

1.23 Terms of Reference to the inquiry are:

- Progress in the implementation of the recommendations of the 1999 Joint Expert Technical Advisory Committee on Antibiotic Resistance, including:
 - ⇒ examination of steps taken, their timeliness and effectiveness;
 - ⇒ where and why failures have occurred;
 - ⇒ implications of antimicrobial resistance on public health and the environment;
 - ⇒ implications for ensuring transparency, accountability and effectiveness in future management of antimicrobial resistance; and
 - ⇒ any other related matter.

15 HAA, *Regional health issues jointly affecting Australia and the South Pacific: Report of the Australian Parliamentary Committee Delegation to Papua New Guinea and the Solomon Islands*, March 2010.

- 1.24 The Committee notes that the subject of antibiotic resistance and its implications for the public health of Australians has been canvassed during the course of this inquiry, in the broader context of learning about the challenges for population health in Australia.
- 1.25 Although the Committee has considered antibiotic resistance during this inquiry (particularly in relation to tuberculosis), it does not propose to separately discuss this in detail.
- 1.26 The Committee notes that the Senate Committees on Finance and Public Administration is due to report on 10 May 2013.¹⁶

Conduct of inquiry

- 1.27 On 20 March 2012, the DoHA provided the Committee with a private briefing on international cross border health initiatives. The Committee subsequently authorised the publication of the transcript of this briefing, so that the evidence could be utilised in this inquiry.
- 1.28 The Committee conducted a series of public roundtable discussions for this inquiry:
- Friday, 25 May 2012, Canberra;
 - Thursday, 2 August 2012, Cairns;
 - Wednesday, 8 August 2012, Perth;
 - Friday, 24 August 2012, Canberra; and
 - Wednesday, 21 November 2012, Christmas Island.
- 1.29 On 21 November 2012, the Committee also undertook inspections of the health facilities at the Christmas Island Hospital and the immigration detention centres on Christmas Island.
- 1.30 The Committee did not call for written submissions, but instead relied upon the evidence provided during the roundtable discussions. Participants included infectious disease physicians and nurses, medical practitioners, epidemiologists, microbiologists and academics from various related fields, Commonwealth public servants and representatives of relevant peak bodies.
- 1.31 A full list of roundtable discussions and participants is outlined at Appendix A.

16 Australian Parliament House, *Senate Standing Committees on Finance and Public Administration*, http://www.apf.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=fapa_cte/index.htm viewed on 5 March 2013.

- 1.32 During the roundtables, some participants provided the Committee with additional documents, including discussion papers, research material and other relevant reports.
- 1.33 A full list of these documents is outlined at Appendix B.

Committee comment

- 1.34 The Committee chose to receive evidence to this inquiry via a series of roundtables held in various locations around Australia, rather than calling for written submissions.
- 1.35 Participation in the roundtable discussions was by invitation from the Committee.
- 1.36 The Committee thanks all of the individuals and agencies who participated in the roundtable discussions for their valuable contribution.
- 1.37 The Committee heard from a range of infectious disease experts during the roundtable discussions. The format was designed to encourage interactive discussion between participants on a wide range of pertinent issues.
- 1.38 Given the breadth of this inquiry, the Committee did not intend that the evidence gleaned from these roundtables would cover the field. The Committee appreciates that there are many other government agencies, non-government organisations and individuals around Australia who could have made a valuable contribution to the roundtable discussions.
- 1.39 The Committee did not seek to identify all infectious disease issues of relevance to Australians in this report. References to infectious diseases were intended to illustrate some of the issues, rather than forming an exhaustive list of diseases to be managed in Australia and across international borders.
- 1.40 Due to time and resource constraints, the Committee was not able to conduct roundtable discussions in all Australian states and territories. Accordingly, this report is not illustrative of all infectious disease issues faced in each jurisdiction across Australia.

Structure of the report

- 1.41 This report comprises six chapters.
- 1.42 Chapter 2 sets out the policy framework upon which this inquiry is based, including an outline of the role of relevant Commonwealth agencies in developing and administering public health policies related to infectious disease issues.

- 1.43 Chapter 3 discusses the screening, surveillance and control of infectious disease in Australia and across international borders, including a review of border control measures and health screening of travellers, migrants, refugees and asylum seekers arriving in Australia.
- 1.44 Chapter 4 identifies international cross-border issues, including the challenges posed by the Torres Strait-Papua New Guinea border, and Australia's role in assisting neighbouring countries respond to emerging infectious disease threats.
- 1.45 Chapter 5 discusses Australia's preparedness to respond to a national or global health crisis involving an infectious disease outbreak on an epidemic or pandemic scale.
- 1.46 Chapter 6 considers how Australia manages infectious disease issues at a Commonwealth, state and territory level, and how these issues are coordinated across portfolios and between the tiers of government. The Committee considers whether a national centre for communicable disease control is needed.