

1. Background

Australia has well-established plans for responding to an influenza pandemic, as set out in the *Australian Health Management Plan for Pandemic Influenza (AHMPPI)*,⁶ last released in May 2006, and the *National Action Plan for a Human Influenza Pandemic (NAP)*,⁷ released in July 2006.

The AHMPPI outlines the Australian health sector strategy for responding to an influenza pandemic as well as documenting measures key stakeholder groups, organizations, the community and individuals can take to prepare for a pandemic. The AHMPPI provides the health foundations for the NAP, which links the health plan with other government plans at national, state and territory level. The AHMPPI also provides the overarching framework for operational-level health response plans at state and territory level.

As one measure to enhance pandemic preparedness, in 2006 Australia's national government worked with state and territory governments to conduct a national pandemic exercise, *Exercise Cumpston 06*, which culminated in a four-day live simulation exercise on 16–19 October 2006.

2. Objectives

The aim of *Exercise Cumpston 06* was to exercise and validate the capacity and capability of the Australian health system to prevent, detect and respond to a pandemic in accordance with the AHMPPI and allow any gaps to be identified and addressed. It also exercised governance aspects of the NAP and state and territory plans. More specifically, the objectives of the exercise were to assess:

1. cross-portfolio and cross-jurisdictional decision-making;
2. pandemic preparedness planning and coordination arrangements within and between jurisdictions;
3. public communications strategies;
4. pandemic influenza surveillance arrangements;
5. public health measures;
6. health-care emergency response arrangements.

⁶ *Australian Health Management Plan for Pandemic Influenza (AHMPPI)*. Commonwealth of Australia, 2006 (<http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ohp-pandemic-ahmpptoc.htm>, accessed 22 May 2008).

⁷ *National Action Plan for a Human Influenza Pandemic (NAP)*. Commonwealth of Australia, 2006 (<http://www.pmc.gov.au/publications/pandemic/index.cfm>, accessed 22 May 2008).

3. Participating agencies and organizations

Table 2
Participating agencies and organizations

Australian Government

Air Services Australia

Australian Customs Service

Australian Federal Police

Australian Quarantine and Inspection Service

Department of Prime Minister and Cabinet

Department of Foreign Affairs and Trade

Attorney-General's Department

Department of Immigration and Multicultural Affairs

Department of Industry, Tourism and Resources

Department of Defence

Department of Families, Community Services and Indigenous Affairs

Department of Health and Ageing

Department of Immigration and Multicultural Affairs

Department of Transport and Regional Services

Department of Agriculture, Fisheries and Forestry

State and territory governments

First ministers' departments

Health departments

Emergency management departments or organizations

Other departments at the discretion of the state/territory governments

Nongovernmental organizations

Australian Divisions of General Practice

Australian Medical Association

Australian Red Cross

Salvation Army

Industry

Brisbane Airport Corporation

Qantas

4. Type of exercise

Full-scale exercise.

5. Preparation for the exercise

A task force was established in the Department of Health and Ageing, with dedicated staff and resourcing, to develop and conduct the exercise. The task force was overseen by a steering group, comprising senior representatives of key government agencies at national, state and territory level, and a management group within the department.

A series of seven preliminary activities was conducted between April and August 2006 in the lead-up to the main exercise in October, which were intended to:

- engage a broader group than would directly participate in the main activity;
- provide an opportunity for those participating in the main activity to focus on the capacities and capabilities they would exercise;
- provide information to develop the scenario for the main activity;
- assist in refining the evaluation strategy;
- identify and address gaps in preparedness or policy issues prior to the main activity.

These preliminary activities included:

- a drill to exercise processes involved in activating the National Medical Stockpile and deploying assets – 19 May 2006;
- a two-day workshop on crisis communications – 6–7 June 2006;
- two discussion exercises on border control, including the screening of incoming passengers – 19 April and 22 June 2006;
- a discussion exercise on intragovernmental and intergovernmental decision-making and coordination – 16 June 2006;



Australian Health Protection Committee meets during Exercise Cumpston 06.

- a workshop to assess national, state and territory health and emergency response preparedness – 5–6 July 2006.

6. Conduct of the exercise

The main activity of *Exercise Cumpston 06* was conducted from 16 to 19 October 2006. In designing the main activity care was taken to create a realistic scenario that would prompt appropriate responses by participants. This involved simulation of the international emergence and progression of the pandemic using sound epidemiological data and realistic assumptions.

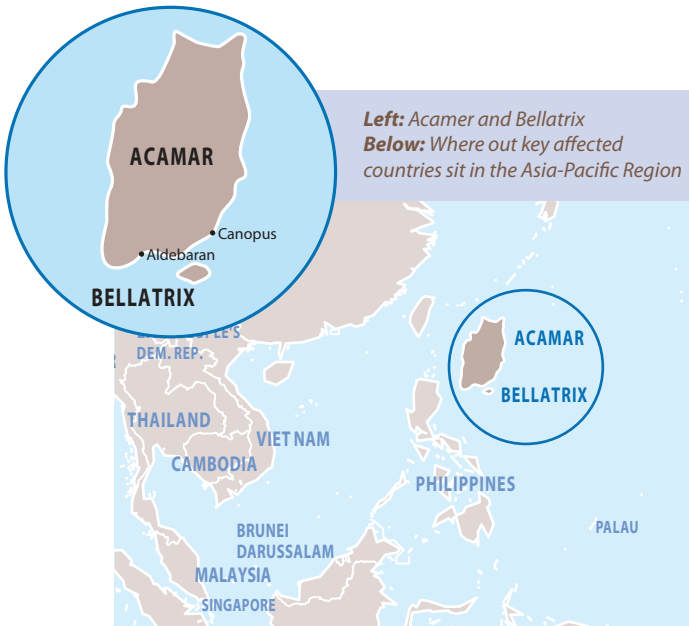
Two fictitious countries, Acamar and Bellatrix, were created to establish the origin of the disease. Detailed geographical, demographic, economic and health system profiles were developed for these countries and made available to participants via country 'fact books' and the exercise web site. This enabled consideration of the development of the pandemic outside Australia without compromising international relationships.

The main activity involved a three-level simulation of an outbreak of pandemic influenza at the national political level, involving Commonwealth agencies and all states and territories. The simulation was supported by five live drills in Queensland, including at Brisbane International Airport, Royal Brisbane and Women's Hospital, a general medical practice, a simulated influenza assessment centre and a laboratory. While designed and conducted as part of the scenario for the main activity, the primary purpose of the drills was to validate particular operational procedures.

The main activity was managed by the Exercise Chief Controller, supported by the Exercise Control Team comprising national and jurisdictional facilitators and controllers. The team worked from the national Exercise Control room located within the Department of Health and Ageing in Canberra. It included personnel from relevant Commonwealth agencies and each state and territory. Their responsibilities included coordination, communication, documentation and media management.

The Exercise Control Team communicated with facilitators and evaluators, monitored progress, determined when corrective action (such as new exercise inputs) was required and provided the materials to enable facilitators to bring the exercise back on track when necessary. A separate Exercise Control was established in Brisbane to manage the Queensland components of the main activity.

Around 800 participants performed their expected response roles as the scenario unfolded. The scenario started with an outbreak in the imaginary South-East Asian country of Acamar. The virus spread first throughout Acamar, then on to neighbouring countries and



finally across the Pacific. It simulated the conditions necessary for the triggering of WHO Pandemic Alert Phase 3, 4 and 5 – human infection with H5N1 avian influenza with possible person-to-person transmission – and eventually Phase 6 – a global influenza pandemic.

The master events list (MEL) was developed based on the scenario and described timings of events and associated exercise inputs. The MEL was constructed and controlled through a Microsoft Access database designed by the Pandemic Influenza Exercise Task Force. The database, which contained over 1000 entries, facilitated event time management and manipulation of scenario data, providing national Exercise Control with the ability to easily extract subsets of information in a variety of formats.

In addition to the Exercise Control Team and participants, exercise facilitators and role players played the roles listed below throughout the exercise.

Exercise facilitators:

- provide exercise inputs
- monitor the progress of the exercise
- ensure actions expected from the exercise inputs are completed
- solve problems in the conduct of the exercise.

Role players:

Role players were engaged to help create realism in certain situations, e.g. by presenting as patients to an assessment centre or by phoning exercise participants about scripted exercise issues.

To simulate media scrutiny of *Exercise Cumpston 06*, a team of pseudo journalists was also assembled in order to test media managers throughout the exercise via a series of media questions and requests for information.

National pseudo media conferences were staged on each day of the exercise with Australia’s Chief Medical Officer.

Exercise observers:

An Exercise Observer Programme was established to enable key national and international agencies to share the *Exercise Cumpston 06* experience. Representatives from 55 organizations, including the United Nations, WHO and Asia-Pacific Economic Cooperation, as well as academia and national nongovernmental organizations, participated as observers.

7. Evaluation

Around 70 exercise evaluators were deployed to observe exercise role players, note actions taken against expected actions, assess the performance of systems and personnel, and prepare a report on exercise play in their location, which contributed to the publication of the *After Action Report*.⁸

8. Lessons learnt

8.1 Preparation for and conduct of the exercise

The *Exercise Cumpston 06* experience highlighted the importance of:

- allowing sufficient development time (12 months minimum recommended);
- involving subject matter experts, such as epidemiologists and medical officers, at an early stage;
- ensuring representation from all levels of government in the planning and conduct of the exercise;
- balancing the number of preliminary activities that identify new policy issues with the work required to develop a firm position on new and existing policy issues;
- considering the *Exercise Cumpston 06* exercise control structure as a model;
- structuring observer programmes to give participants the opportunity to directly observe or be briefed on all exercise activities.

8.2 Pandemic preparedness

Exercise Cumpston 06 identified the following 12 key recommendations to strengthen Australia’s preparation for the health response to an influenza pandemic:

- Recommendation 1: Usual decision-making structures and consultative processes need to be streamlined to ensure timely responses in an emergency.

⁸ *National pandemic influenza exercise: Exercise Cumpston 06 report*. Commonwealth of Australia, 2007 (<http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ohp-cumpston-rep.htm>, accessed 22 May 2008).

- Recommendation 2: National pandemic plans (the AHMPPI, the NAP and other relevant plans) need updating to provide for a more flexible layering of preparedness and response measures according to the severity of the pandemic and available response capacity.
- Recommendation 3: Health electronic communications systems, including the Health Alert Network and the Department of Health and Ageing web site, need to be further developed and exercised.
- Recommendation 4: There is an urgent need for improved whole-of-government and cross-jurisdictional communications mechanisms to ensure consistent and coordinated delivery of public messages.
- Recommendation 5: The concept and operation of public health policies, such as social distancing, need to be explained to the public with public communication messages and strategies prepared ahead of time.
- Recommendation 6: A nationally agreed framework for pandemic influenza surveillance should form an annex to the AHMPPI, and should be underpinned by operational plans and improved information and communications technology.
- Recommendation 7: Individual jurisdictions should ensure operational lessons learnt from exercise activities are shared with all state and territory health departments and other relevant groups.
- Recommendation 8: Further clarification of Commonwealth quarantine and state and territory public health and health emergency legislation is needed to ensure smooth operational interaction. This will include detailed operational procedures for triggering and applying the relevant powers.
- Recommendation 9: The AHMPPI needs further updating and fleshing out in some policy areas



Thermal camera scans incoming air passengers during Exercise Cumpston 06.

- to ensure nationally consistent and streamlined approaches to, for example, border quarantine, social distancing, access to antivirals and vaccines and influenza assessment centres.
- Recommendation 10: General practitioners, community pharmacies and other primary care providers need to be better integrated into detailed plans at the national and jurisdictional level.
- Recommendation 11: Procedures for health incident rooms and operations centres need to be reviewed to ensure that seamless support for decision-making and experience of command, control and coordination in emergencies are built in.
- Recommendation 12: The exercise did not test Australia's whole-of-government capacity to respond over an extended period. Further work is needed to ensure responses can be sustained over a prolonged period through planning for workforce training and surge capacity, scenario-based contingency planning and a continuing programme of pandemic preparedness exercises.