

# **Report on Exercise Cruickshank**

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# Executive Summary

## Background

Exercise Cruickshank was a whole-of-government influenza pandemic exercise led by the Ministry of Health. It took place over five days in May 2007.

Exercise Cruickshank was the largest exercise of its type undertaken in New Zealand. It involved government agencies at national and local levels.

## Aims and objectives

The aims of Exercise Cruickshank were to:

- strengthen intersectoral readiness to keep out, stamp out, manage and recover from a pandemic influenza in accordance with the New Zealand Influenza Pandemic Action Plan
- identify areas for improvement in the New Zealand Influenza Pandemic Action Plan.

The objectives of Exercise Cruickshank were to:

- practice specific aspects of the pandemic response plans set out in the New Zealand Influenza Pandemic Action Plan
- exercise the intersectoral response during the four phases of a pandemic: keep it out (border management), stamp it out (cluster control), manage it (pandemic management) and recover from it (recovery).

The exercise covered national, regional and local responses.

Seventeen objectives were developed in consultation with the Health Sector Advisory Group and Intersectoral Advisory Group. These are set out in section 1.4.

The exercise did not aim to address all aspects of the New Zealand Influenza Pandemic Action Plan.

## Approach

Exercise Cruickshank was carried out in three parts.

- A national intersectoral exercise run over three days.
- A series of discussion-based exercises run in parallel with the national intersectoral exercise.
- A series of four regional workshops and one national workshop focused on pandemic recovery.

Performance indicators were developed for each objective. The 68 performance indicators were evaluated and are discussed in section 5 of the report.

## **In scope**

Exercise Cruickshank was developed to test aspects of scenarios 5.1 to 6.4 and the post-pandemic period of the New Zealand Influenza Pandemic Action Plan.

## **Out of scope**

Exercise Cruickshank was not designed to test activities related to scenarios 1.1 to 4.2 of the New Zealand Influenza Pandemic Action Plan.

All animal-related activity was out of scope for the purposes of this exercise.

## **Exercise outcome**

Exercise Cruickshank was the largest exercise of its kind to be conducted. It successfully practised the four stages of a pandemic response across more than 40 government agencies at local, regional and national levels in New Zealand. Feedback from participants shows that more than 85 percent believed the exercise was a valuable use of time and resources. Not only did it allow several sectors to practise their role in the response to this kind of event, but it enabled side benefits, including the creation of communication and network links between organisations.

## **Strengthening intersectoral readiness to respond to a pandemic event**

The intersectoral capability and capacity to keep out, stamp out, manage and recover from pandemic influenza in accordance with New Zealand Influenza Pandemic Action Plan has been significantly strengthened through Exercise Cruickshank.

Feedback from members of the Intersectoral Advisory Group and Interagency Pandemic Group indicates that participants have developed useful and enhanced networks and working relationships across government sectors that will benefit future pandemic situations and enhance normal day-to-day activities. It is important that these networks and working relationships are maintained.

## **Identify improvements to the New Zealand Influenza Pandemic Action Plan**

Exercise Cruickshank identified key issues and priority areas that need to be addressed to improve the operational application of the New Zealand Influenza Pandemic Action Plan.

In addition, areas of notable strength were also identified during the exercise. For example:

- Day 1: Border management: The border management deployment exercise was successfully carried out.
- Day 2: Cluster control: The deployment exercises carried out on Day 2 demonstrated that cluster control operations can be initiated effectively across the health sector. Procedures in prisons and schools were successfully tested.

- Day 3: Pandemic management: The setting up of community-based assessment centres was successfully practised on Day 3 in several District Health Boards. The exercise demonstrated that the health sector can establish and resource these facilities in a timely manner when required. Key critical infrastructure companies were engaged in order to test communication processes. Excellent liaison occurred between District Health Boards and civil defence groups in many areas.
- Days 4 and 5: Recovery: Representatives from many agencies attended workshops across the country to discuss the issues that will likely arise during the recovery phase of a pandemic. The discussion workshops were well attended and there was an enthusiastic level of engagement from all participants. Issues were identified and suggestions were made about how to address the issues in the national recovery plans for a pandemic situation. These are discussed in more detail in section 5 of the report.

## **Findings and recommendations**

Key findings and recommendations from Exercise Cruickshank are summarised below. These are discussed in more detail in section 4 of this report, which provides a comprehensive view of the issues noted in the following commentary, and should be read in conjunction with this Executive Summary.

### **Update planning across agencies**

Exercise Cruickshank has revealed strengths and weaknesses in intersectoral and individual agency plans. It is important that the gaps and weaknesses are addressed in order to advance planning and preparedness in New Zealand for a pandemic event.

Each agency is responsible for updating its own plans and/or those of the work groups it is responsible for, based on its own evaluation of its performance during Exercise Cruickshank.

In addition, intersectoral plans at national and local levels, including the New Zealand Influenza Pandemic Action Plan and a whole-of-government pandemic recovery work programme and plan, need to be updated and developed respectively.

### **Improve information collection and dissemination**

The development and dissemination of situation reports improved across Days 1–3 of the exercise.

Information for the public was also well developed and disseminated through the Ministry of Health website, and there was good liaison between agencies concerning public information.

Key issues that need to be addressed in relation to this area include:

- additional training for staff on how to complete a situation report and other reports
- the further development of WebEOC (web-based emergency management software) as a tool for collecting and disseminating information
- the stress testing of public information systems to deal with a large volume of requests (eg, the Ministry of Health website and telephone helplines)
- the development of integrated procedures for disseminating information to specific communities.

### **Improve agency emergency response procedures**

The exercise demonstrated that health agencies at national and local levels can operate as the lead agencies if they have good support from other agencies such as civil defence groups. However, this is the first time that the health sector has practised this role nationally and many opportunities for improvement have been identified for health (and other) agencies. Improvements include:

- ongoing training for the co-ordinated incident management system for relevant staff, and fast-track orientation programmes for staff in emergency operation centres
- clearer definition of the roles and responsibilities of different advisory or decision-making groups in a pandemic response
- identification of generic single points of contact in each agency for emergencies in general
- further development of integrated emergency exercises at national and local levels that build on lessons learnt in different types of exercises.

### **Advance the progression of emergency-related legislation**

Relevant agencies should prepare Orders in Council, as provided in section 11(1) of the Epidemic Preparedness Act 2006 and requested by Cabinet in October 2006, to modify existing legislation to enable greater flexibility during a pandemic emergency.

### **Advance planning for public health controls**

The implementation of border and cluster control operations lies at the heart of the keep it out and stamp it out phases. Agencies successfully mounted such operations during the exercise, but this placed great pressure on resources, raising issues about the sustainability of operations over a longer period. However, public health services noted great improvements since Exercise Makgill, which tested the stamp it out phase of a pandemic response.

Key issues that need to be addressed as a result of Exercise Cruickshank include:

- lessons learnt by District Health Board public health services about sourcing and training additional staff to assist in the response during the keep it out and stamp it out phases need to be shared in order to enhance plans

- the work programme for border management needs to be advanced (as identified by the Ministry of Health and Border Working Group).

### **Advance planning for community-based assessment centres**

Several District Health Boards practised establishing community-based assessment centres. The national Community-Based Assessment Centre Working Group needs to reconvene to review the lessons learnt during Exercise Cruickshank and to develop guidance for establishing, resourcing and maintaining community-based assessment centres.

### **Advance planning for Civil Defence and Emergency Management Support to Pandemic Response groups and agencies**

The Ministry of Civil Defence and Emergency Management is the lead agency for this component of a pandemic response. A co-ordinated response amongst these agencies was successfully practised at a national and regional level. This now enables Civil Defence and Emergency Management support centre systems and processes to be refined, with a focus on the processing of information, and situation reports.

The Ministry of Economic Development worked with critical infrastructure providers to practise new procedures and processes for liaison between providers during the different phases of a pandemic response. There was a good level of engagement from a variety of providers, and the Ministry of Economic Development decided work would continue with these providers to advance planning and preparation for a pandemic response.

### **Advance planning in other sectors**

Many other agencies were actively engaged during the exercise. In general, the sectors most affected by a pandemic event would be those concerned with social and economic matters. These are the agencies that need to ensure they have effective and appropriate pandemic plans. Many agencies with an interest in social, economic, foreign affairs and trade issues took part in the exercise, in particular the policy discussion exercises.

Other agencies practised responses in relation to their particular environment. For example:

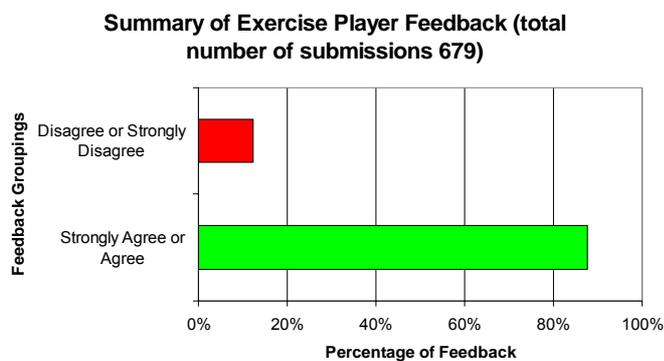
- the Department of Corrections practised responses in prison settings and probation offices
- the Ministry of Education practised responses in pre-school and school settings
- the National Welfare Recovery Co-ordinating Group considered issues from a welfare perspective
- the Ministry of Civil Defence and Emergency Management addressed its role as a support agency during an emergency response
- Te Puni Kōkiri practised procedures for liaising with Māori communities.

Many other agencies practised internal or sector-specific procedures and provided liaison officers, players and/or points of contact for the National Health Co-ordination Centre and National Crisis Management Centre.

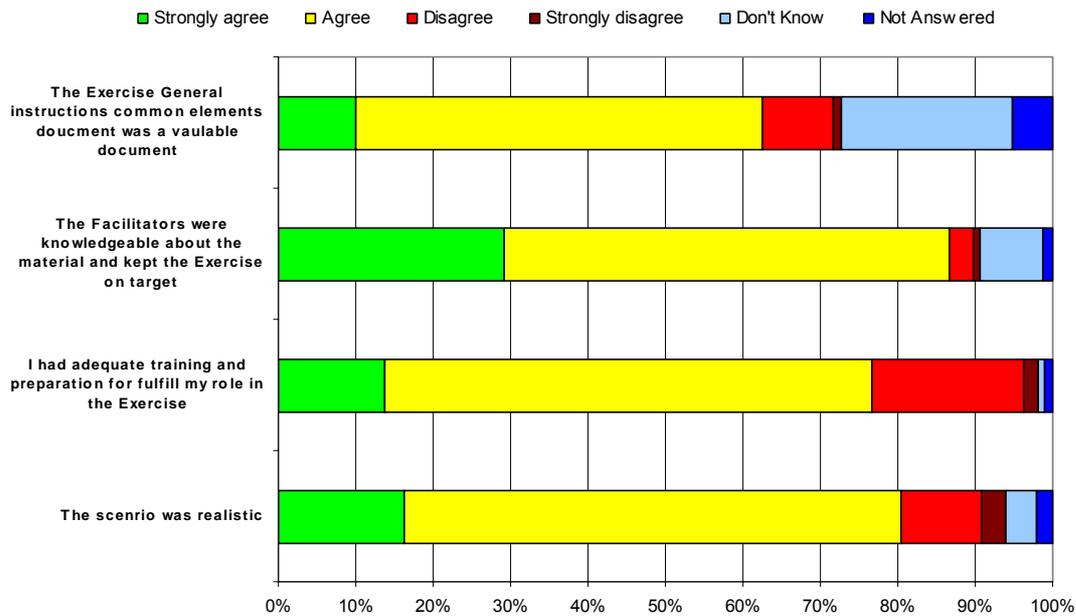
A key issue arising from the exercise concerns the provision of support to people who cannot leave their homes because of sickness during a pandemic event. This matter requires more work, particularly in relation to the provision of food and other critical supplies, and the Ministry of Health should co-ordinate an intersectoral working group to address this issue.

## Exercise control

Overall, the feedback on the role of exercise control (that is, the staff responsible for developing, managing, evaluating and documenting the exercise) before and during the exercise was positive. The graph below summarises the feedback ratings from participants, and reiterates that more than 85 percent of participants agreed this was a well-planned and well-executed exercise that benefited the participating organisations.



Participants were asked to comment on particular aspects of the exercise design, development and delivery. The graph following summarises player feedback specific to exercise control.



Exercise control is discussed in more detail in section 7 of the report.

### Observer programme

Thirteen representatives from Australia, the Pacific Rim, the World Health Organization, foreign commissions and various national agencies attended the observer programme.

Observers' feedback was positive and encouraging, particularly from the World Health Organization representative. New Zealand is seen to be organised, prepared and proactive in response to the threat of a pandemic outbreak.



# 1 Background

## 1.1 Exercise context

Annual influenza outbreaks are a fact of life, but their impact can be reduced through annual vaccination programmes. Pandemic influenza is different. It is a much more serious disease, which attacks about three times every century.

Ministry of Health planning for the threat of a pandemic was heightened almost two years ago following the international alert with SARS (severe acute respiratory syndrome) and with the heightened awareness that the avian influenza virus (H5N1) had pandemic potential. Since then, government as a whole, including the health sector, has been developing plans to prepare the country for such a threat. The result of this planning has been the New Zealand Influenza Pandemic Action Plan.<sup>1</sup>

The New Zealand Influenza Pandemic Action Plan and the National Health Emergency Plan: Infectious Diseases are available from the Ministry of Health website (<http://www.moh.govt.nz/pandemicinfluenza>). These plans are essential reading for everyone involved in pandemic planning and pandemic exercise development.

### 1.1.1 Pandemic exercise programme

The Ministry of Health co-ordinated a pandemic exercise programme in 2006/07 that consisted of two major exercises, Exercise Makgill and Exercise Cruickshank. The exercise programme aimed to assess New Zealand's plans for responding to a pandemic.

This report focuses on the Exercise Cruickshank objectives and performance indicators.

### 1.1.2 Exercise Makgill

Exercise Makgill was carried out on 9 November 2006 over a 12-hour period. The exercise assessed the health sector's ability around the cluster control ('stamp it out') stage of response to a pandemic. This exercise used a table-top approach to simulate the events that could arise during a real pandemic event.

The report from Exercise Makgill is available from the Ministry of Health website.<sup>2</sup> The report contains the lessons from Exercise Makgill. The Ministry of Health has used these lessons to advance planning and preparedness for response to a pandemic and to facilitate the more efficient and effective delivery of Exercise Cruickshank.

<sup>1</sup> Ministry of Health. 2006. *New Zealand Influenza Pandemic Action Plan*. Wellington: Ministry of Health.

<sup>2</sup> [http://www.Ministry of Health.govt.nz/Ministry of Health.nsf/pagesmh/5217/\\$File/report-exercise-makgill-nov2006.pdf](http://www.Ministry of Health.govt.nz/Ministry of Health.nsf/pagesmh/5217/$File/report-exercise-makgill-nov2006.pdf)

## 1.2 Exercise Cruickshank purpose

Exercise Cruickshank was a whole-of-government influenza pandemic exercise led by the Ministry of Health. It took place over five days in May 2007. Exercise Cruickshank aimed to practise the plans set out in the New Zealand Influenza Pandemic Action Plan and test the intersectoral response at all four stages laid out in the plan. Exercise days covered intersectoral responses at national, regional and local levels.

## 1.3 Aims

The aim of Exercise Cruickshank was to strengthen intersectoral readiness to keep out, stamp out, manage and recover from pandemic influenza in accordance with the New Zealand Influenza Pandemic Action Plan.

In addition, each exercise day had specific aims.

- Day 1: Keep it out: Strengthen intersectoral action to keep pandemic influenza out of New Zealand by practising the implementation of scenario 5.1 of the New Zealand Influenza Pandemic Action Plan.
- Day 2: Stamp it out: Strengthen intersectoral action to stamp out pandemic influenza from New Zealand by practising the implementation of scenario 5.2 of the New Zealand Influenza Pandemic Action Plan.
- Day 3: Manage it: Strengthen intersectoral action to manage pandemic influenza with a 40 percent incidence rate and a 2 percent case fatality rate by practising the implementation of scenario 6.3 of the New Zealand Influenza Pandemic Action Plan.
- Days 4 and 5: Recover from it: To identify and document issues, roles and functions that will need to be addressed when recovering from pandemic influenza with a 40 percent incidence rate and a 2 percent case fatality rate.

## 1.4 Objectives

Exercise Cruickshank had 17 objectives.

1. To practise and validate the national and local decision-making and reporting arrangements and their interaction as identified in the New Zealand Influenza Pandemic Action Plan.
2. To ensure agencies provide evidence that they can maintain a medium- to long-term response capability at national and local emergency operations centres.
3. To practise and validate whole-of-government public information management systems and processes.
4. To practise and validate the establishment and maintenance of border management initiatives.
5. To practise and validate the establishment of disease monitoring, surveillance and analysis processes.
6. To practise and validate national decision-making arrangements.
7. To practise and validate policies and procedures for the identification and treatment of cases.

8. To practise and validate policies and procedures for the identification, quarantine and post-exposure prophylaxis of contacts.
9. To identify options to ensure that the needs of people in quarantine at home are met.
10. To collate, analyse and disseminate surveillance information on the spread of influenza in order to inform policy and operational decisions at local, regional and national levels.
11. To ensure critical supplies are available to support cluster control operations.
12. To practise and assess national and local decision-making arrangements concerning the size and scope of public health interventions to be implemented to control clusters.
13. To establish community-based assessment centres and alternative means of providing specific pandemic influenza assessment and treatment services in urban and rural areas.
14. To identify how critical services in the fast moving consumer goods, electricity, gas, telecommunications, petroleum, transport, water and waste management, civil defence and emergency management, and other sectors can be monitored and maintained with a projected 50 percent staff absence for two weeks at the peak of the pandemic wave.
15. To identify and document, in each District Health Board catchment, the responsibilities for and means of supporting sick people and their dependants who are unable to leave home.
16. To identify and document recovery roles and functions for key sectors, and their interdependencies.
17. To identify and document critical actions for central and local government in the initial months of recovery (noting that recovery starts in parallel with the response to the pandemic).

## **1.5 Participants**

Exercise Cruickshank involved the direct participation and input from a large number of agencies. Exercise Cruickshank involved, over the exercise days:

- the health sector, including:
  - the Ministry of Health
  - District Health Boards
  - Institute of Environmental Science and Research
  - District Health Board public health services
  - the Order of St John
- central government agencies, including:
  - Aviation Security Services of New Zealand
  - Te Puni Kōkiri
  - the Civil Aviation Authority

- the Department of Corrections
- the Department of Internal Affairs
- the Department of Prime Minister and Cabinet
- the Inland Revenue Department
- the Ministry of Agriculture and Forestry
- the Ministry of Civil Defence and Emergency Management
- the New Zealand Defence Force
- the Ministry of Economic Development
- the Ministry of Education
- the Ministry of Foreign Affairs and Trade
- the Ministry of Justice
- the Ministry of Social Development
- the Ministry of Transport
- the New Zealand Customs Services
- the New Zealand Fire Service
- the New Zealand Police
- the Reserve Bank of New Zealand
- the State Services Commission
- The Treasury.

## **1.6 Approach**

Exercise Cruickshank was the largest exercise of its type ever attempted in New Zealand.

### **1.6.1 Content of the exercise**

Exercise Cruickshank was carried out in three parts over May and June 2007.

- A national intersectoral exercise run over three days (10, 16 and 17 May).
- A series of discussion-based exercises run in parallel with the national intersectoral exercise.
- A series of four regional workshops on 23 May and one national workshop on 30 May focused on pandemic recovery.

The intersectoral exercise encompassed health and non-health agencies at national, regional and local levels. The focus was to assess New Zealand's intersectoral readiness and ability to respond to a pandemic event, in accordance with the New Zealand Influenza Pandemic Action Plan. The exercise used the controlled release of injects, based on a simulated scenario, as a mechanism to stimulate discussion and decision-making across government.

To gain the most benefit out of Exercise Cruickshank, plans were practised to the most realistic extent possible within the limits of ensuring business as usual for the participating agencies and organisations was maintained. Exercise Cruickshank included a combination of table-top and discussion exercise formats and a limited amount of operational deployment.

### **1.6.2 Exercise themes**

Exercise Cruickshank enabled participating agencies to practise a new set of accountabilities, responsibilities, and ways of working, communicating, and sharing decision-making within and between agencies at national and local levels. It was, therefore, very important to ensure that the tasks to be practised were prioritised and achievable. It was not possible or desirable to practise every aspect of pandemic response for every stage of pandemic response.

As a result, the Ministry of Health, in consultation with health sector and intersectoral advisors, developed the exercise objectives and performance indicators to align with the following exercise themes.

#### **Tracking demand for resources**

Capturing data on the resources that are required and any of the points where services are overwhelmed are important issues for each agency to help with planning.

Many of the actions that were required to test the objectives had not been attempted before. Consequently, there was uncertainty about the resources required (for example, staff, training and time). The exercise allowed agencies to carry out activities that would indicate their resource requirements for future plans.

#### **Connectivity**

Because an influenza pandemic would be a national health emergency, the Ministry of Health and District Health Boards are required to lead the intersectoral response at national and local levels respectively. This is a new role for these agencies and the types of working relationships required to combat an influenza pandemic are also new. The exercise practised current communication processes between agencies and identified where improvements are required.

The exercise required all agencies to focus on connectivity both within their agency and with other agencies in planning for and responding to a pandemic.

#### **Consequential impacts**

The New Zealand Influenza Pandemic Action Plan recognises that actions required to combat a possible influenza pandemic require the balancing of the potential benefits of interventions with the potentially adverse impacts of those interventions; for example, the impact on business activities of restricting people's movement.

To advance thinking on real-time decision-making processes and policy development, discussion exercises on Days One and Two enabled these trade-offs to be discussed against the backdrop of the exercise scenarios.

## Use of National Health Emergency Plan: Infectious Diseases and New Zealand Influenza Pandemic Action Plan processes and systems

During the exercise days, operational and response agencies used the co-ordinated incident management system to co-ordinate their response to the scenarios. In addition, communications and reporting systems and processes as described in the National Health Emergency Plan: Infectious Diseases<sup>3</sup> and the New Zealand Influenza Pandemic Action Plan were used.

## 1.7 Scenarios for Exercise Cruickshank

### 1.7.1 Day 1 scenario

The scenario for Day 1 of Exercise Cruickshank was that the avian virus H5N1 was infecting and killing people in many countries and had developed into a form that could be transmitted easily between humans. The new virus had developed in West Africa, where disease surveillance was poorly developed. Fatalities from influenza were initially lost against the background of deaths from other infectious and respiratory diseases so it was not immediately apparent that people were dying from influenza.

By the time the disease was recognised and confirmed, it had spread to other countries in Africa. Early cases were also found in Caribbean countries, southern Africa, and among foreign aid workers returning from these areas to their European home countries.

Within days of the announcement of the African outbreak of the virus and human-to-human transmission, and with no previous warning, an Asian country with which New Zealand has significant trading and tourism links announced that influenza cases had occurred in several of its cities 'for a short time'.

The virus did not appear to have a particularly high reproductive rate, and the scenario stated that transmission was principally between family members and non-familial close contacts. However, between 5 percent and 10 percent of cases died relatively quickly despite receiving treatment.

New Zealand took prompt action. The Government directed that active border management operations should be established at all international points of entry.

<sup>3</sup> Ministry of Health. 2004. *National Health Emergency Plan: Infectious Diseases*. Wellington: Ministry of Health.

### **1.7.2 Day 2 scenario**

The scenario for Day 2 of Exercise Cruickshank was that the influenza pandemic was spreading overseas.

New Zealand was maintaining border management operations.

Four clusters of cases appeared more or less simultaneously in widely spread places across New Zealand. The cases appeared to be recent arrivals from an unaffected country. The affected District Health Boards and Public Health Units started cluster control operations. The Government announced that every effort would be made to eliminate the clusters before the disease spread into the general population.

The virus overseas appeared to have a slightly lower case fatality rate of between 3 percent and 7 percent (at least in advanced countries) but a slightly higher reproductive rate than was previously the case. The nature of the virus in New Zealand was not known at this time.

### **1.7.3 Day 3 scenario**

The scenario for Day 3 of Exercise Cruickshank was that pandemic influenza had escaped control and started to spread to the general population.

District Health Boards established community-based assessment centres. National reserve supplies of Tamiflu (an antiviral drug) were mobilised, and the community-based assessment centres were distributing Tamiflu.

Pandemic health data was being collected and forwarded to the Ministry of Health. Other agencies were focused on maintaining critical services.

### **1.7.4 Days 4 and 5 scenario**

The scenario for Days 4 and 5 of Exercise Cruickshank was that crèches, kindergartens, schools, colleges, universities, public libraries and video stores were re-opened.

More planes were flying, although international passenger traffic was at 20 percent of its normal level, and was expected to recover to normal levels only slowly. This has an impact on trade, particularly imported supplies for industry.

Power, water and sewerage services were maintained during much of this period, although outages were becoming more common because maintenance had been deferred. Waste was piling up in the community and at health facilities because of the reduction in waste disposal services.

Telephone, text and email communication was heavy as people tried to keep in touch with each other.

The epidemiology of the disease in New Zealand was much the same as in other countries. All health services were badly affected. More and more health workers were returning to work, but normal health work was hampered by shortages in critical supplies.

## **1.8 WebEOC**

As part of the Exercise Cruickshank planning and preparation phase the Ministry of Health procured a pilot of the web-based emergency management software WebEOC.

WebEOC was piloted as part of the exercise to assess the software's operation in practice. As a result, information was collected through formal evaluation forms and debriefing sessions. The key themes relating to WebEOC are summarised in section 5.19.1.

The WebEOC project is independent to Exercise Cruickshank, so the Ministry of Health is progressing this through separate channels. Contact the Ministry of Health directly if you require further information on WebEOC.

## **1.9 Observer programme**

The Ministry of Health established a formal observer programme as part of Exercise Cruickshank.

## **2 Quality Assurance**

During the development and design of Exercise Cruickshank, the Ministry of Health and the report-writing working group reviewed material.

The National Co-ordinator Emergency Planning, Ministry of Health, was responsible for signing off the exercise material and this report.

## **3 Evaluation and Analysis**

### **3.1 Evaluation approach**

The Ministry of Health, in consultation with the Health Sector Advisory Group and the Intersectoral Advisory Group, developed exercise-specific objectives and performance indicators to measure the performance of exercise play during the exercise days. A suite of tools was developed to assist with the evaluation of exercise play against the objectives and performance indicators.

Results are based on feedback and comments received from players, evaluators and facilitators.

#### **3.1.1 Evaluation templates**

A suite of evaluation templates was developed for evaluators and players relating to particular objectives of the exercise. These templates allowed evaluators to document the activities and assess performance indicators on each exercise day.

#### **3.1.2 Assessment reports**

Evaluators were provided with assessment reports to record the actions and decisions they observed each exercise day. The assessment reports provided a general overview of the exercise day and an assessment of the:

- facilities and communications equipment used in the exercise
- strengths and opportunities for improvement for agencies, systems and players
- feedback from the site debriefs.

#### **3.1.3 Debriefings**

A key evaluation activity of the exercise was the assessment and evaluation of the exercise as a whole for each exercise day from the view of the players at each site. Exercise debriefing took the form of:

- 'hot' debriefs with players at each site immediately after the exercise was terminated on each exercise day
- four regional and one national 'cold' debriefs in June 2007 with players, facilitators and evaluators after the completion of the whole exercise.

#### **3.1.4 Evaluator and facilitator preparation**

As part of the exercise, evaluators and facilitators:

- were given an information pack, including templates and instructions for evaluating or facilitating the intersectoral response at national and local levels
- attended face-to-face orientation workshops on the role of the evaluators and facilitators and use of the templates and tools
- received briefings by telephone before each exercise day.

## **3.2 Sources of information**

Information about the results of the exercise was collected from:

- observation notes and comments on exercise play from evaluators at each site using the pre-developed templates
- narrative feedback from exercise participants
- independent submissions from the Institute of Environmental Science and Research, the Ministry of Health, District Health Boards and Public Health Units
- hot debriefs with participants, facilitators and evaluators
- cold debriefs with participants, facilitators and evaluators.

## **3.3 Analysis methodology**

The information collected during Exercise Cruickshank was evaluated and analysed using quantitative and qualitative processes. Judgement was used to draw conclusions and identify the cause of problems identified in the comments. See section 5 for a summary of the evaluation results for each performance indicator.

Note that while Exercise Cruickshank was undertaken by a large number of agencies throughout the health and non-health sectors, the analysis in this report focuses on national trends or findings common to all exercise participants. Individual agencies have the responsibility to develop reports specific to their agency or organisation and sector.

## **3.4 Disclaimer**

Not all exercise participants or agencies provided evaluation information. The analysis is based on the many responses received within the timeframes specified. Several responses were received after the response closure date. Where feasible, the Ministry of Health has included late feedback and findings in the analysis. However, given the vast volume of information, the Ministry of Health does not guarantee that all late submissions and feedback have been included in this report.

## 4 Key Issues and Recommendations

### 4.1 Methodology

Exercise Cruickshank has been assessed in terms of its achievement of objectives and individual performance indicators. Key groups of issues were revealed during the analysis. These issues and their associated recommendations were selected on the basis of:

- the significance of the issue (as demonstrated by the volume and consistency of the comment received focusing on those issues)
- the scope of the issue (that is, its degree of impact across the country and across agencies)
- a judgement about whether an issue can be resolved (that is, achievability).

Key issues and recommendations are listed below. This overview is followed by commentary on each performance indicator.

### 4.2 Key recommendations for action

Readers should note that these key recommendations arise from the exercise and do not represent a comprehensive list of pandemic planning priorities. Several issues were out of scope of the exercise, such as internal hospital response arrangements, so are not covered in this report.

Many recommendations focus on high-level issues that are intersectoral in nature; that is, requiring action from all the agencies involved. By and large, they do not focus on detailed recommendations for each agency. Some recommendations, however, have been made for specific agencies where such an agency played a leading role in addressing an objective or a performance indicator.

Many agencies practised their own internal or sector co-ordination and communications issues extensively during Exercise Cruickshank. An assessment of these activities is outside the scope of this report, because this is the responsibility of individual agencies.

#### 4.2.1 Reporting

All agencies

All agencies need to:

- implement training and exercises to practise using the reporting systems, processes and reporting forms and to ensure people know how to develop the content required for situation and other reports
- identify clear systems and responsibilities for collecting, providing, validating and disseminating information.

## Ministry of Health

The Ministry of Health needs to improve procedures for situation reporting and other intelligence and information activities. To do this, the Ministry of Health needs to:

- identify clear procedures and responsibilities for collecting, fast-track validating and disseminating information, and document in standard operating procedures. The Standard Operating Procedures will identify who disseminates information, who receives information, and how, when and in what form information is distributed
- ensure the situation report template provides for intersectoral reporting
- develop WebEOC as a resource to assist with managing health emergencies (for example, for collecting and disseminating information)
- align information systems such as WebEOC, SurvINZ (an integrated national surveillance system) and other relevant systems that may be developed
- widen access to WebEOC to District Health Board public health services and other relevant government agencies
- support the development of the systems piloted in the exercise for the rapid reporting of contacts
- investigate and develop a reliable, readily accessible system for reporting on the Pandemic Minimum Data Set, including examining whether the National Immunisation Register can be used for this purpose.

Civil Defence and Emergency Management Support to Pandemic Response groups and agencies:

- Enhance the Civil Defence and Emergency Management support centre systems and processes for situation reports, processing of information and final report development.

### **4.2.2 Public and stakeholder information management**

#### All agencies

All agencies need to:

- maintain interagency communication linkages and groups at national and local levels in the planning, response and recovery phases
- test the ability of intersectoral communication groups to handle a large volume of requests at national and local levels, building on experience with other emergency responses and exercises, and revise plans for intersectoral communication teams' emergency response, if required
- stress test key websites, such as that of the Ministry of Health, to see how many hits can be accommodated with current systems, and expand site capacity, if required
- adopt fast-track procedures for validation of information (see also section 4.2.1)
- adopt procedures for customising and disseminating their own pandemic-related key messages for their key communities based on the nationally agreed messages developed by the lead agency.

## Ministry of Health

The Ministry of Health needs to:

- incorporate non-governmental organisations into the response framework at national and local levels
- review and build on current dissemination channels used by agencies
- update information on communication channels and procedures in Appendix K of the New Zealand Influenza Pandemic Action Plan.

### 4.2.3 Roles and responsibilities

#### All agencies

All agencies that expect to set up an emergency operations centre or will need to mount a significant response in a pandemic event should:

- provide appropriate co-ordinated incident management systems training (including refresher courses) to emergency operations centre staff, including explaining the function of their emergency operations centre and their agency's role during a pandemic
- prepare, before an event, job cards with the appropriate level of detail for roles in the emergency operations centre, and ensure they can be easily distributed at the start of an event
- design a fast-track orientation programme for use in an event, so staff who have not yet taken part in a response are quickly oriented to their role, and incorporate the programme into the emergency operations centre standard operating procedures
- review delegated authority policies for appropriateness to ensure that, during an event, decisions can be made at the appropriate level in a timely, efficient and effective manner (note that delegations apply to positions, not individuals, so senior management should endorse them before an event)
- identify the minimum level of staff required to operate their emergency operations centre and emergency response, and train a pool of people to meet this requirement
- ensure more staff have the required knowledge and expertise to take a lead role in a real event, rather than relying on the knowledge and expertise of one or two people
- establish and maintain a 24-hour, seven-days-a-week, single contact point to act as a central liaison point in emergencies
- ensure their activities are compatible with other related activities across government (for example, building on databases from different agencies rather than creating a new database)
- seek opportunities for practising critical generic aspects of a pandemic-related response within exercise programmes for other types of emergency (for example, public information management, situation reporting or special health assessment centres).

## Ministry of Health

The Ministry of Health needs to:

- identify the response role of different pandemic planning, advisory and decision-making groups in the next version of the National Health Emergency Plan (considering the role of civil defence cluster groups in this context), and develop formal structures and guidelines to provide clear terms of reference, frameworks and procedures so roles and accountabilities are unambiguous and processes are streamlined
- update the database of agency contact points for health-related emergencies
- review the role of health sector regional co-ordination in the context of health emergencies of all kinds, taking into account new tools such as WebEOC
- review the alert code system that activates the pandemic response phases
- consider a pandemic exercise programme within the context of health and other emergency exercises developed by government agencies and District Health Boards.

### 4.2.4 Legislation

#### All agencies

Relevant agencies should prepare Orders of Council, as provided in section 11(1) of the Epidemic Preparedness Act 2006 and requested by Cabinet in October 2006, to modify existing legislation to enable greater flexibility during a pandemic emergency.

## Ministry of Health

The Ministry of Health needs to modify the:

- Health Practitioners Competence Assurance Act 2003 to permit health staff to work on issues outside their normal scope of practice
- Health and Disability Services (Safety) Act 2001 so hospitals, rest homes and other health services can comply with more flexible standards in an emergency
- Medicines Act 1981 and regulations made under that Act to relax provisions concerning the supply of medicines during a pandemic event.

### 4.2.5 Support for people at home

#### District Health Board public health services: Stamp it out phase

- District Health Board public health services should share local solutions for providing support, in particular, food and other critical supplies for people in quarantine during the keep it out and stamp it out phases in order to enhance planning. This will enable the development, at regional and local levels, of clearer responsibilities and methods for delivering food and other critical supplies.

## Agencies involved with supporting people at home during emergencies: Manage it phase

- Agencies involved with supporting people at home should determine, at national, regional and local levels, the responsibilities and methods for delivering food and other critical supplies to people isolated at home, and ensure methods of delivery are feasible and sustainable.
- The Ministry of Health should convene a work group (with representatives from other ministries, the National Welfare Recovery Co-ordinating Group and District Health Boards) to develop guidance to help local agencies plan for the provision of services to help meet the supply and health needs of people who cannot leave home during the response phase. This work group should draw on the solutions identified for the provision of services for non-pandemic related emergencies as well as lessons learned from Exercise Cruickshank.
- District Health Boards need to practise providing home support services in liaison with civil defence groups and other agencies if these services were not practised in Exercise Cruickshank.

### **4.2.6 Critical infrastructure and supplies**

#### Civil Defence and Emergency Management Support to Pandemic Response groups and agencies

The exercise identified a number of issues to be addressed by these agencies and groups, as follows:

- continue working with infrastructure providers to establish sector co-ordinating entities with clearly defined roles and responsibilities
- improve the daily reporting system and establish a framework for starting up the information system in an emergency
- establish and clarify the process by which infrastructure providers request assistance
- clarify and communicate government's position on specific issues (for example, prioritisation of infrastructure restoration, and supplies).

#### Ministry of Health

- Provide national direction on priorities for the provision of health services and the use of critical health supplies if normal services cannot be maintained during the response and recovery phases.

### **4.2.7 Border management: Ministry of Health in liaison with intersectoral Border Working Group**

The Ministry of Health, in liaison with the intersectoral Border Working Group, will progress its border management work programme, taking into account the lessons learnt at national and district levels during Exercise Cruickshank and the new international health regulations.

This programme will include:

- bringing together key personnel from different sites to share lessons learnt during the exercise
- reviewing and exercising quarantine arrangements, procedures and responsibilities
- revising guidelines and standard operating procedures to take account of the lessons learnt during the exercise
- addressing gaps in procedures (for example, how to quarantine aircrews)
- completing the development of border resources
- developing plans for exit screening
- developing an exercise programme, the first priority being quarantine services.

#### **4.2.8 Education: Ministry of Education**

The Ministry of Education should enhance pandemic planning and preparedness for the education sector by providing additional resources and guidance to early childhood education services, schools and tertiary education organisations, building on lessons learnt during Exercise Cruickshank.

This programme of work will include:

- sharing the lessons learnt during the exercise
- revising guidelines and standard operating procedures to take account of the lessons learnt during the exercise
- reviewing pandemic resources and the Ministry of Education’s pandemic website
- increasing sector awareness of the need to plan and prepare
- developing and improving the crisis communications arrangements, procedures and responsibilities, both within the sector and with other sectors
- establishing a Ministry of Education emergency response capability
- developing an ongoing exercise programme.

#### **4.2.9 Public health interventions: Ministry of Health and District Health Board public health services**

The Ministry of Health needs to:

- complete frequently asked questions to provide guidance to Medical Officers of Health on their powers under the Epidemic Preparedness Act 2006
- consider providing more comprehensive guidance on trigger points for implementing public health controls, in consultation with Medical Officers of Health
- facilitate a process so District Health Board public health services share local solutions to problems associated with sourcing and training staff for additional District Health Board public health services during a pandemic, consider the need for national and/or regional guidance, and refine local contingency plans and training programmes accordingly

- develop policies and procedures for a mass public pandemic vaccination programme and a targeted H5N1 vaccination programme
- ensure information on major public health interventions, such as school closures and openings, is disseminated to inform agency and business planning during a pandemic response.

#### **4.2.10 Community-based assessment centres: Ministry of Health and District Health Boards**

The Ministry of Health and District Health Boards need to:

- reconvene the national Community-Based Assessment Centre Working Group to review the lessons learnt during the exercise, and develop further guidance for establishing, resourcing and maintaining community-based assessment centres
- determine the level of resources required (if any) from non-health agencies for community-based assessment centres, in consultation with relevant agencies
- District Health Boards should practise the establishment of a community-based assessment centre, if they have not already done so, based on lessons learnt by other District Health Boards during the exercise.

#### **4.2.11 Recovery**

A whole-of-government approach to the pandemic recovery phase should be taken to develop and determine roles, responsibilities and functions for a recovery phase. Recommendations for a whole-of-government programme to address recovery from a pandemic perspective are detailed in section 5, focusing on economic, social and legislative issues.

#### **4.2.12 Other issues: all agencies**

Agencies such as the Department of Corrections, Ministry of Social Development, the National Welfare Recovery Co-ordinating Group, and those concerned with the economy should advance pandemic planning as a component of their general emergency preparedness programmes.

### **4.3 Exercise Control**

#### **4.3.1 Background**

Exercise Control comprised of the staff responsible for developing, managing and co-ordinating the facilitation, evaluation and documentation of Exercise Cruickshank.

The objectives for Exercise Control were to:

- control the exercise by overseeing the timely communication of injects to test facilitators at various locations throughout the country
- monitor the exercise and determine when corrective action (such as new exercise injects) was required to bring the exercise back on track
- identify issues or gaps raised by the exercise and feed them into the final report.

### 4.3.2 Independent assessment of Exercise Control

The analysis and evaluation of Exercise Control activities involved feedback from five sources.

Source	Description
National exercise control evaluators	Evaluators from Police, the New Zealand Defence Force and the Fire Service were present in the Exercise Control facilities in Wellington during all three days.
Participants	Every participant had an opportunity to complete a feedback form. Sections 6 and 7 of this report include feedback specifically related to the design and conduct of the exercise, where measures were graded on a five-point qualitative scale.
Exercise evaluators	Feedback from the exercise evaluators included comments about Exercise Control.
Exercise 'hot' debriefs	Debriefs were held at the end of each exercise day, which captured evaluations on aspects of Exercise Control from players as well as Exercise Control staff.
Facilitators' and evaluators' 'cold' debriefs	Four regional debriefs and one national debrief were held in the second week of June 2007 following Exercise Cruickshank. These debriefs captured issues identified by the District Health Board, Public Health Unit and non-health exercise facilitators and evaluators.

Overall, the role of Exercise Control was carried out successfully. See section 7 for specific details about the evaluation of Exercise Control.

## 5 Analysis: Exercise Play

The evaluation analysis assessed the extent to which the Exercise Cruickshank objectives (measured by the performance indicators) were met.

This section lists the results of our analysis of each performance indicator along with recommended actions for improvement.

As mentioned in section 3.3, the analysis results relate to issues that are health specific or are common to all or most of the agencies that participated in the exercise.

### 5.1 Objective 1: Reporting

**To practise and validate the national and local decision-making and reporting arrangements and their interaction as identified in the New Zealand Influenza Pandemic Action Plan.**

Before Exercise Cruickshank took place, reporting roles and responsibilities were disseminated to the agencies participating in the exercise through the Ministry of Health website and emergency operations centre managers.

As the local lead agencies, District Health Boards were responsible for collating information from other agencies and developing situational reports to inform policy and action. Timeliness was a problem, but this improved over the three exercise days.

The Ministry of Health collated information from District Health Board situational reports and developed a national situation report for consideration by the notional Watch Group, which was role-played by Exercise Control. Again, timeliness was a problem.

An overview of the national situation was distributed to national agencies and local emergency operations centres.

The quality of all reports and their timeliness improved considerably over the three exercise days.

#### 5.1.1 Key issues

Not all players received information about the reporting procedures, which was also distributed at training sessions, but not all players attended these sessions.

Decisions and policies were disseminated to the relevant districts. Some participants noted that information was not sent to them. However, there was not always information to send out.

The information that should be arriving at each level needs to be clarified to avoid frustration. In addition, emergency operation centres need to establish clear responsibilities for reporting, and have procedures for validating information before disseminating it.

The further development of WebEOC will improve the collection and dissemination of key information. All relevant agencies should be given access to WebEOC.

**5.1.2 Performance indicators 1–5**

<b>Performance indicator 1</b>																	
As the local lead agencies, District Health Boards (DHBs) collate information from other agencies and develop situation reports and other reports to inform policy and action. Situation reports are collated regionally and presented to the National Health Co-ordination Centre in the timeframes specified during the exercise.																	
<b>Scope:</b> National Health Co-ordination Centre, health sector	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 22 Day 2 – 34 Day 3 – 28															
<b>Results</b>																	
<p>Many situation reports were not presented to the National Health Co-ordination Centre in the timeframes specified. Although timeliness was a problem, the quality of the reports improved considerably over the exercise days.</p> <p><b>Other comments</b></p> <p>Responses indicate participants thought the reporting process worked well.</p> <p>Some participants commented that they struggled with the different reports and forms and asked for training on their use.</p>		<p style="text-align: center;"><b>% of respondents who met objective</b></p> <table border="1"> <caption>Data for % of respondents who met objective</caption> <thead> <tr> <th>Exercise Day</th> <th>Count</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>20/22</td> <td>~91%</td> </tr> <tr> <td>2</td> <td>31/34</td> <td>~91%</td> </tr> <tr> <td>3</td> <td>27/28</td> <td>~96%</td> </tr> <tr> <td>Average</td> <td>-</td> <td>~93%</td> </tr> </tbody> </table>	Exercise Day	Count	Percentage	1	20/22	~91%	2	31/34	~91%	3	27/28	~96%	Average	-	~93%
Exercise Day	Count	Percentage															
1	20/22	~91%															
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3	27/28	~96%															
Average	-	~93%															
<b>Key issues</b>																	
<p>Lack of timeliness was primarily a result of people getting used to the reporting systems and expectations.</p> <p>WebEOC was new to the sector, being tested for the first time. The use of both WebEOC and email for communication caused confusion in some districts.</p>																	
<b>Recommendations</b>																	
<p>It is recommended that the Ministry of Health in liaison with DHBs:</p> <ul style="list-style-type: none"> <li>implements training and exercises to practise using the reporting systems, processes and reporting forms, and ensure that people know how to develop the content required for situation and other reports</li> <li>develops WebEOC as a resource to assist with managing health emergencies (for example, for collecting and disseminating information), and establishes interfaces between and alignment with SurvINZ and other relevant information systems</li> <li>widens access to WebEOC to public health services and other relevant government agencies.</li> </ul>																	

**Performance indicator 2**

The Ministry of Health collates information from District Health Board situation reports to develop a national situation report to be considered by the Watch Group. This will guide the development of policy and other actions. National situation reports will be presented in the timeframes specified during the exercise, and the quality will be assessed by the (notional) Watch Group.

<b>Scope:</b> National and local evaluators	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 22 Day 2 – 34 Day 3 – 28
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**Results**

The situation reports on Day 1 did not contain all the relevant information. It is noted that the team was relatively inexperienced at writing reports of this nature.

	Day 1	Day 2	Day 3
Relevant content?	x	1/2	✓
Timeframe met?	x	1/2	1/2

The situation reports on Days 2 and 3 showed an improvement in quality. The national situation report contained relevant content, including appropriate information and highlighted key actions and issues.

**Report timing**

Timeframes for written reports were not met. However, on Days 2 and 3 an oral presentation was ready within time.

**Key issues**

The key issue was a lack of timeliness. It is probable that the main cause relates to District Health Boards getting used to their role as local lead agency, and the National Health Co-ordination Centre getting used to gathering and analysing the large amounts of data required for a national situation report.

Some respondents at the National Health Co-ordination Centre identified that clearer responsibilities for reporting are required in Planning and Intelligence.

Some respondents commented that the national situation report was more oriented towards a health response than an intersectoral response.

Incorrect information was entered into situation reports. Critical pieces of information require validation rather than being accepted at face value.

**Recommendations**

It is recommended that the Ministry of Health considers improvements to procedures for situation reporting and other intelligence and information activities by:

- identifying clear procedures and responsibilities for collecting, fast-track validating and disseminating information that are documented in standard operating procedures. The Standard Operating Procedures will identify who disseminates information, who receives information, and how, when, and in what form information is distributed
- allocating designated roles within the National Health Co-ordination Centre for actioning these tasks
- implementing specific roles within the National Health Co-ordination Centre for validating and peer reviewing information
- ensuring roles and responsibilities for receiving and disseminating information of epidemiological importance are compatible with Environmental Science and Research and public health services procedures
- ensuring the situation report template provides for intersectoral reporting
- considering the value of developing a prioritisation hierarchy for critical information at different pandemic phases.

<b>Performance indicator 3</b>																						
National situation reports or information reports and any associated media releases are distributed to national agencies and local emergency operations centres twice a day. These overview the national situation and identify actions to be taken at national and/or regional or district levels. District co-ordinators assess quality.																						
<b>Scope:</b> National intersectoral, National Health Co-ordination Centre, health sector	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 22 Day 2 – 34 Day 3 – 28																				
<b>Results</b>																						
<p><b>Timeliness</b></p> <p>On average, 73 percent of respondents within the health sector stated that the reports were distributed as often as required. The chart to the right shows compliance over the exercise days.</p> <p><b>Quality</b></p> <p>The intersectoral evaluator assessed the quality of the content of the situation reports as below expectations.</p>		<p style="text-align: center;"><b>% of respondents who met objective</b></p> <table border="1"> <caption>Data for % of respondents who met objective</caption> <thead> <tr> <th>Exercise Days</th> <th>Number of respondents who met objective</th> <th>Total respondents</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>16</td> <td>21</td> <td>76%</td> </tr> <tr> <td>2</td> <td>22</td> <td>30</td> <td>73%</td> </tr> <tr> <td>3</td> <td>15</td> <td>22</td> <td>68%</td> </tr> <tr> <td>Average</td> <td>-</td> <td>-</td> <td>73%</td> </tr> </tbody> </table>	Exercise Days	Number of respondents who met objective	Total respondents	Percentage	1	16	21	76%	2	22	30	73%	3	15	22	68%	Average	-	-	73%
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3	15	22	68%																			
Average	-	-	73%																			
<b>Key issues</b>																						
The problem of poor quality relates to the low level of experience of staff carrying out this role during a pandemic response and the low priority allocated to the task.																						
<b>Recommendations</b>																						
See performance indicator 2.																						

<b>Performance indicator 4</b>		
Decisions and policies are disseminated to all relevant districts in order to inform local action. Quality is assessed as part of the total evaluation programme.		
<b>Scope:</b> National intersectoral, National Health Co-ordination Centre	<b>Days:</b> 1, 2, 3	<b>Number of respondents:</b> Evaluation has been based on feedback gathered at debriefs and through other evaluation material.
<b>Results</b>		
<p>On Days 1–3 the national intersectoral evaluator noted that, while decisions and policies were disseminated to all relevant District Health Boards, issues included:</p> <ul style="list-style-type: none"> <li>• confusion and uncertainty during shift two as to what needed to be disseminated and how this should be done (that is, situation reports), and information dissemination often ceasing during the afternoon</li> <li>• situation reports being the only method for disseminating information when it may have been appropriate to use information report</li> <li>• some delays with national decisions, which had follow-on effects at the regional and district levels.</li> </ul> <p>On Day 1 District Health Boards reported that they had not received all policy advice and decision inputs that they expected from the National Health Co-ordination Centre.</p> <p>It is expected that wider access to WebEOC will enable all relevant agencies/organisations to stay up to date with information developments.</p>		
<b>Key issues</b>		
<p>Roles and responsibilities for National Health Co-ordination Centre staff in shift two lacked clarity. Knowledge of the functions of the National Health Co-ordination Centre was lacking.</p> <p>Expectations about updates and information were not well managed. The frequency for disseminating information needs to be identified, and timeframes need to be adhered to. If there is nothing to report, the National Health Co-ordination Centre should confirm this at specified intervals.</p> <p>Expectations were not fully understood or managed.</p>		
<b>Recommendations</b>		
See performance indicator 2.		

<b>Performance indicator 5</b>		
Players have clearly documented roles and responsibilities that are relevant to their activities on the day.		
<b>Scope:</b> National intersectoral, National Health Co-ordination Centre, health sector, Border Working Group, Environmental Science and Research, other national agencies	<b>Days:</b> 1, 2, 3	<b>Number of respondents:</b> No responses were received on this performance indicator. The evaluation is based on feedback gathered at debriefs and through other evaluation material.
<b>Results</b>		
<p>Feedback from debriefs and assessment reports indicated that many participants were unclear about their role and responsibilities and the roles and responsibilities of other staff around them. Many felt their roles and responsibilities within their emergency operations centre needed to be better defined.</p> <p>However, some participants wanted a level of detail about their role (what to do, when to do it and how to do it) that can never be provided in a role description.</p> <p>In addition, some participants observed that delegations of authority and accountability were confused. This led to some staff disregarding formal delegation lines, increasing the risk that emergency operations centre activities will become compromised.</p> <p>The Ministry of Civil Defence and Emergency Management practised establishing its own emergency operations centre and liaising with civil defence groups as a support rather than the lead agency. Civil defence groups played a significant role in Exercise Cruickshank, and were generally well involved in the exercise response. Many other agencies carried out similar exercises within their sectors (for example, the Ministry of Social Development, the Department of Corrections, the Department of Labour and Te Puni Kōkiri).</p> <p>Some respondents at a national level stated that the roles of advisory or working groups should be more clearly defined (for example, the role of pandemic planning groups, health technical advisory groups, the Watch Group and other officials groups).</p>		
<b>Key issues</b>		
<p>Each agency is responsible for developing its own roles and responsibilities for its players.</p> <p>It is clear from feedback that not all staff during an emergency event are familiar with or practised in their role, responsibilities, accountabilities and authorities. This may be due to lack of clear and documented role descriptions, but is also likely to be a result of key staff lacking training in their appointed role during an emergency, and recognising that a different form of accountability comes into play during an emergency.</p> <p>The exercise offered the first opportunity for many agencies and their staff to practise their roles and responsibilities in a health-led emergency. The experience gained from Exercise Cruickshank will help to inform further development within each agency. Familiarity and repetition through regular exercises will go some way to addressing the lack of clarity about roles and responsibilities.</p> <p>Good liaison occurred between the civil defence and health sectors during the exercise, and participants observed that these relationships should now be further strengthened to build on the excellent progress to date.</p>		

## Recommendations

It is recommended that all agencies that expect to set up emergency operations centres or mount a significant response during a pandemic event:

- provide appropriate co-ordinated incident management systems training (including refresher courses) to emergency operations centre staff, including explaining the function of their emergency operations centre and their agency's role in a pandemic
- prepare, before an event, job cards with the appropriate level of detail for roles in the emergency operations centre and ensure they can be easily distributed at the start of an event
- design a fast-track orientation programme for use in an event, so staff who have not yet taken part in a response are quickly oriented to their role, and incorporate the programme into emergency operations centre standard operating procedures
- review delegated authority policies for appropriateness to ensure that, during an event decisions can be made at the appropriate level in a timely, efficient and effective manner (note that delegations apply to positions, not individuals, so senior management should endorse them before an event)
- identify the response role of different planning, advisory and decision-making groups in the next version of the New Zealand Influenza Pandemic Action Plan and consider the role of civil defence cluster groups in this context.

## 5.2 Objective 2: Sustained response

**To ensure agencies provide evidence that they can maintain medium- to long-term response capability at national and local emergency operations centres.**

This objective was assessed within the health sector. The health sector is well practised in developing and using staff rosters. Feedback from evaluators showed that most of the health sector had practical staff rosters to address short- to medium-term capability through an emergency response.

However, cold debrief sessions revealed that some central government agencies had not identified this capacity.

### 5.2.1 Key issues

Participants suggested in the debriefs that there would be difficulties in maintaining sustainable staff capacity in their emergency operations centres during a pandemic in the longer term because of the decrease in the number of appropriately skilled staff who would be available.

**Performance indicator 6**

Develop practical staff rosters for 24-hour, seven-days-a-week operations for the first week, and provide orientation packages for staff unfamiliar with emergency operations centre procedures.

**Scope:** National Health Co-ordination Centre, health sector

**Days:** 1, 2, 3

**Number of respondents (Health)**

Day 1 – 21

Day 2 – 32

Day 3 – 28

**Results**

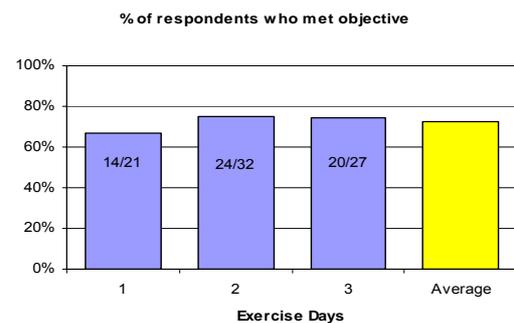
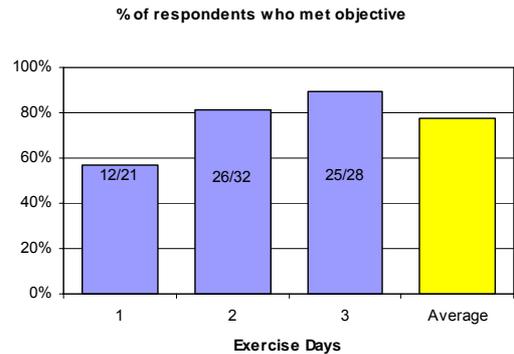
Over the three exercise days the number of respondents who developed practical staff rosters for 24-hour, seven-days-a-week operations increased. On two occasions respondents indicated that the establishment of a staff roster was not considered a priority, but no reasons were given for this.

The National Health Co-ordination Centre evaluator notes that the National Health Co-ordination Centre did not have a practical roster.

In some agencies, expertise and knowledge of emergency response and pandemic issues reside with only one or two people. These agencies reported problems in their ability to mount a response.

Approximately 73 percent of health sector respondents showed evidence of an orientation plan for staff unfamiliar with emergency operations centre procedures.

Many participants believed that maintaining sustainable staff capacity in their emergency operations centre would be a problem during a real event.



**Key issues**

Rosters for 24-hour, seven-days-a-week staff for emergency operations centres are not always given a priority by emergency operations centre managers.

Not all emergency operations centres had an orientation plan for staff.

**Recommendations**

It is recommended that agencies:

- identify the minimum level of staff required to operate their emergency operations centre and emergency response, and train a pool of people to meet this requirement
- ensure more staff have the required knowledge and expertise to take a lead role in a real event, rather than relying on the knowledge and expertise one or two people
- identify a position responsible for staff rosters in each emergency operations centre.

## **5.3 Objective 3: Public information management**

### **To practise and validate whole-of-government public information management systems and processes.**

During preparation for Exercise Cruickshank, interagency communications groups were formed at national and local levels. These groups established processes for communication during a pandemic, and practised these processes over the three exercise days.

Key messages were developed and notionally released in a timely manner through agreed channels.

Public information communications were generally consistent and clearly set out on notionally publicly accessible avenues such as websites and media release statements.

Media queries were passed through the appropriate channels in a timely manner, and most agencies already have systems to deal with receiving media inquiries that relate to another agency in an appropriate and timely manner.

Disseminating information and key messages to overseas missions, other governments and international agencies is a well-practised process and was effectively acted on during the exercise.

Requests for information from key international agencies were processed in a timely manner through the Ministry of Foreign Affairs and Trade.

Te Puni Kōkiri was active in developing messages for Māori communities.

#### **5.3.1 Key issues**

Not all agencies consistently developed communication channels or distributed key messages to key communities, particularly Māori, Pacific and Asian peoples, people with special needs, and geographically isolated communities. Systems for developing and disseminating such information require further improvement.

Key information about public hygiene and preventive measures for staff, students and customers of individual agencies is widely available through the health sector, including the Ministry of Health website. However, it was unclear whether other agencies used, adapted and distributed this information for their sectors.

### 5.3.2 Performance Indicators 7–14

<b>Performance indicator 7</b>		
Interagency communications groups are formed, and structures and processes are agreed at national and local levels.		
<b>Scope:</b> National intersectoral, National Health Co-ordination Centre, health sector	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 20 Day 2 – 30 Day 3 – 27
<b>Results</b>		
<p>Intersectoral communications groups were formed and structures and processes for communicating intersectorally were agreed before the exercise at national and local levels.</p> <p>Evaluators noted that these structures and processes were practised during the exercise and this was demonstrated through the Ministry of Health website, teleconferences, radio and television advertisements, media talking points, and mock media conferences.</p> <p>Data from debriefs and other assessment reports indicated that intersectoral participants thought liaison between agencies was effective. There were, however, some concerns with liaison with the non-government organisations sector. For example, the National Health Co-ordination Centre was unable to advise how non-government organisations would be notified of escalation and other key decisions. However, testing the non-government organisation sector was not part of the scope of the exercise.</p>		
<b>Key issues</b>		
<p>The non-government organisations sector needs to be more closely incorporated into the national planning and response framework.</p> <p>Some agencies outside of the health sector had not provided single point of contact information. This made it difficult to contact them during the exercise, negatively affecting the effectiveness of communication activities.</p> <p>In a real event, communications units will be bombarded with queries from the media and the public. The capacity to deal with this volume of work was not tested during Exercise Cruickshank. However, experience with other events indicates that a very large staff resource will be required and that such a resource will need to be drawn from across many agencies. Agencies should build on the lessons from other emergencies (for example, floods).</p>		
<b>Recommendations</b>		

- It is recommended that agencies:
- maintain interagency communications linkages and groups at national and local levels in the planning, response and recovery phases
  - test the ability of communications personnel to handle a large volume of queries from the media and public in future exercises at national and local levels
  - stress test key websites, such as that of the Ministry of Health, to see how many hits can be accommodated with current systems, and expand site capacity, if required
  - ensure all central agencies and District Health Boards participating in pandemic response identify a single point of contact to act as a central liaison point for emergencies. Consider broadening the scope of this initiative to a whole-of-government all-hazards approach (which the Ministry of Health, Ministry of Civil Defence and Emergency Management, and Intersectoral Pandemic Group are to discuss)
  - develop a structured non-government organisation response framework at national and district levels, incorporate it into intersectoral pandemic response networks, and identify the key channels for the dissemination of information, building on existing networks
  - update information on communication channels and procedures in Appendix K of the New Zealand Pandemic Action Plan.

<b>Performance indicator 8</b>		
Key messages are developed, agreed and notionally released to the public and stakeholders in a timely manner through international, national and local channels.		
<b>Scope:</b> National intersectoral, health sector	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 21 Day 2 – 33 Day 3 – 25
<b>Results</b>		
<p>Key messages were released to the public and stakeholders within the specified timeframes on all exercise days, and most respondents indicated they had received these key messages.</p> <p>Participants felt information needed to be more consistent and raised the need for more robust systems to control, validate, disseminate and respond to information requests and requirements.</p> <p>Information sometimes appeared in the media before such information had been presented and disseminated to emergency operations centres.</p> <p>The intersectoral evaluator commented that there was a high level of engagement from participants (including media role players) and agency representatives at media conferences.</p>		
<b>Key issues</b>		
<p>There is a need to review systems to control, disseminate and respond to public information requests, and to ensure that staff responding to requests for information understand the dissemination process and apply it correctly.</p> <p>Subject matter experts need to verify information before it is disseminated to ensure it is accurate and consistent.</p> <p>Sometimes the media in any given locality will be better informed about local developments than are central agencies, simply because they often have staff on location. Public and stakeholder expectations, therefore, need to be tempered to take this reality into account. Regular situation and information reporting is vital to minimise the impact of this factor on public confidence.</p>		
<b>Recommendations</b>		

It is recommended that:

- when agencies review their emergency plans, they should consider the structures and processes for national and local interagency communication groups and regularly test them to ensure:
  - they are robust enough to minimise the risk of inconsistent or inaccurate information reaching the public
  - they identify plans for handling the volume of work that will occur in a real event
- the National Health Co-ordination Centre and the National Crisis Management Centre designate an appropriately qualified person (or people) to approve key communications (for example, guidelines, public information or media releases) for technical accuracy and consistency before dissemination
- other agency EOCs should also ensure they carry out a similar quality control function. Note: the process for review must be fast tracked and in real time in order to keep up with demand in a real event.

**Performance indicator 9**

Communications content is consistent and clear at international, national and local levels, and across agencies.

**Scope:** All participants

**Days:** 1, 2, 3

**Number of respondents:** The evaluation has been based on feedback gathered at debriefs and through other evaluation material.

**Results**

Consistent information was placed on the Ministry of Health website to inform action by stakeholders and others.

Some communication content from national to local levels and across agencies was inconsistent. There were concerns that information in the national situation reports and in statements and updates from the national level was inconsistent with local and/or regional information and, at times, contradicted what was occurring at local and regional levels. Similarly, information released to the media was sometimes inconsistent with other information released by agencies.

Information in the national situation reports, and other information from a national level, is dependent on the provision of accurate and timely information from local and regional levels and other agencies.

The National Health Co-ordination Centre or National Crisis Management Centre is responsible for validating information before disseminating it, and ensuring that collated information that is disseminated is not inaccurate or contradictory. This requires a robust intelligence gathering and assessment process by people who are familiar with gathering, analysing, reporting and validating a large amount of information from a variety of sources.

**Key issues**

Generally, the Ministry of Health provided clear and consistent information through its website and other mechanisms.

In any emergency the information provided may, at times, be confusing and contradictory due to the pace of developments. Therefore, it is important to temper stakeholder and public expectations.

The consistency of information can be improved by introducing a quality control function into emergency operations centres to validate the technical accuracy of information.

**Recommendations**

See performance indicators 7 and 8.

<b>Performance indicator 10</b>		
Media queries received by any agency relating to another agency's area of work are passed through agreed communication channels in a timely manner.		
<b>Scope:</b> National Health Co-ordination Centre, health sector, other national agencies	<b>Days:</b> 1, 2, 3	<b>Number of respondents (Health)</b> Day 1 – 7 Day 2 – 20 Day 3 – 30 <b>(Other)</b> Day 1 – 2
<b>Results</b>		
<p>On Day 1, one respondent observed that the agency failed to pass on the information in a timely manner in only two instances.</p> <p>On Days 2 and 3, all health sector respondents reported that media queries they received that related to another agency's area of work were passed through agreed communication channels in a timely manner. Feedback from other agencies during debriefs confirmed that this was the case.</p> <p>Some national agencies reported that they frequently receive media queries that relate to another agency's area of work during their normal course of business, so already have systems, to deal with them.</p>		
<b>Key issues</b>		
<p>No issues were identified relating to this performance indicator.</p> <p>The two instances identified on Day 1 were largely due to the exercise environment and no further instances were identified through the rest of the exercise.</p>		
<b>Recommendations</b>		
None.		

**Performance indicator 11**

Key messages are developed and communication channels identified for key communities, specifically Māori, Pacific and Asian peoples, people with special needs, and geographically isolated communities.

**Scope:** National intersectoral, National Health Co-ordination Centre, other national agencies, health sector

**Days:** 1, 2, 3

**Number of respondents (Health)**

Day 1 – 17

Day 2 – 22

Day 3 – 19

**(Other agencies)**

Day 1 – 3

Day 2 – 1

Day 3 – 1

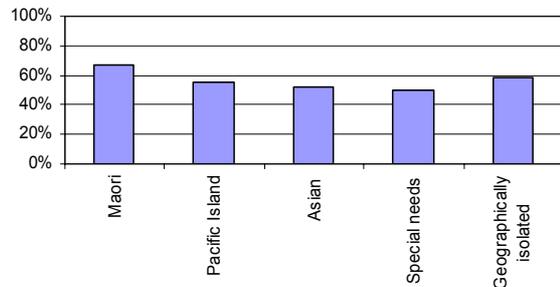
**Results**

It is difficult to interpret the results of this performance indicator because respondents may have interpreted the evaluation form differently. Regard these results with caution.

While not all respondents reported developing information, they may have been using information produced by other agencies.

The chart to the right shows that Asian and special needs communities may be the most at risk of not receiving targeted communication. For Māori communities, 67 percent of respondents reported developing communications for Māori. Te Puni Kōkiri and the Ministry of Health were active in developing communications for disseminating to Māori communities.

**% of respondents who developed communications for key communities**



At the national level, on Day 1 few key messages were developed for the above communities. On Days 2 and 3, key messages were developed for the key communities except geographically isolated communities, and communication channels were identified for these communities. Key messages were translated into multiple languages for use on radio, television and website(s).

The response from other national agencies was low, with only one response for this performance indicator per exercise day. One agency developed key messages for Māori on Days 2 and 3, using radio and television as the main communication channels. Another agency developed key messages for geographically isolated communities on Day 1 using an 0800 number and internal communication systems such as intranet, email, phone and fax.

**Key issues**

A number of agencies made good attempts to develop and disseminate information to key communities. However, there is room for improvement.

**Recommendations**

It is recommended that each agency adopts procedures to customise and disseminate its pandemic-related key messages for its key communities, based on the nationally agreed messages the lead agency has developed.

See performance indicators 7 and 8.

<b>Performance indicator 12</b>		
Information on the New Zealand situation and associated actions (such as travel restrictions) is notionally disseminated to overseas missions, other governments, international agencies and New Zealand nationals through appropriate means each day.		
<b>Scope:</b> National intersectoral	<b>Days:</b> 1, 2, 3	<b>Number of respondents:</b> This evaluation is based on feedback gathered at debriefs and from national EXCON.
<b>Results</b>		
On Days 1–3, information on the New Zealand situation and associated actions (such as travel restrictions) were notionally disseminated to overseas missions, other governments and international agencies such as the World Health Organization. This process is well practised and proven to be effective.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

**Performance indicator 13**

Key messages for staff, students and customers of individual agencies are prepared for dissemination on social distancing, hygiene, and working and studying from home.

**Scope:** National intersectoral, National Health Co-ordination Centre, health sector

**Days:**  
1, 2, 3

**Number of respondents (Health)**

Day 1 – 20  
Day 2 – 31  
Day 3 – 23

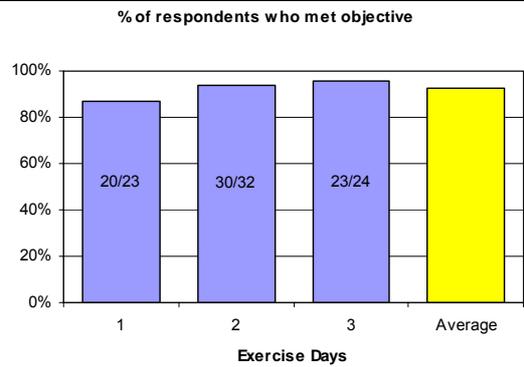
**(Other)**

Day 1 – 3  
Day 2 – 1  
Day 3 – 1

**Results**

A high percentage of health sector respondents prepared key messages for dissemination for individual agencies on social distancing, hygiene, and working and studying from home (an average of 92 percent).

Key messages and guidelines are available from government agency websites (for example, the Department of Labour, Occupational Safety and Health, and the Ministries of Economic Development and Health).



**Key issues**

No issues related to this performance indicator.

**Recommendations**

None.

<b>Performance indicator 14</b>		
Notional requests for information from key international agencies are actioned within the timeframes identified.		
<b>Scope:</b> National intersectoral	<b>Days:</b> 1, 2, 3	<b>Number of respondents:</b> No responses were received on this performance indicator. The evaluation has been based on feedback gathered at debriefs and through other evaluation material.
<b>Results</b>		
<p>Agencies did not receive any notional requests for information from key international agencies on Days 1 and 2. However, the National Health Co-ordination Centre proactively provided information to and sought information from the World Health Organization (played by Exercise Control) in accordance with provisions in the new international health regulations. Information was also passed between the Ministry of Foreign Affairs and Trade and its overseas missions.</p> <p>On Day 3, the Ministry of Foreign Affairs and Trade received a notional request for information through an inject and appropriate action was taken within the specified timeframe confirming that current systems work well.</p>		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

## 5.4 Objective 4: Border management

### To practise and validate the establishment and maintenance of border management initiatives.

The following performance indicators for this objective were met in districts that supplied evaluation reports.

- Agencies at international points of entry demonstrated that personnel can be deployed within the required timeframe.
- Appropriate control measures were established at international points of entry within the required timeframe.
- Procedures were compliant with national border guidelines.
- Information was available for quarantined passengers.
- The means of transport to quarantine venues was notionally identified and secured within the required timeframe.
- Venues with facilities for quarantining relevant arriving passengers were identified and notionally secured within the required timeframe.
- Staff to provide security at quarantine venues for the first 24 hours of operation were notionally identified and secured within the required timeframe.
- National reserve supplies of antiviral drugs could be released and deployed to District Health Board public health services implementing border management operations in sufficient quantities for the first 48 hours of operations in a timely fashion.

### 5.4.1 Key issues

Border controls can be established in a timely fashion at key ports of entry.

Not all areas have yet identified facilities for the quarantine of arriving passengers under a worst case scenario: this requires further consideration, with priority being given to developing a specific quarantine exercise in 2008.

Records of people being assessed for antiviral drugs for treatment and post-exposure prophylaxis were not made and forwarded to the Ministry of Health National Health Co-ordination Centre. This was because the Ministry of Health does not have any established mechanism for gathering, recording and reporting this type of information.

However the response rate was low, and did not capture information from a number of seaports and smaller international airports.

### 5.4.2 Performance indicators 15–24

Performance indicator 15		
Agencies at international points of entry demonstrate that personnel can be deployed to commence border management programmes. Target: Within three hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 5
Results		
Personnel were successfully deployed to commence border management activities within the specified timeframe.		
Key issues		
See performance indicator 16.		
Recommendations		
See performance indicator 16.		

<b>Performance indicator 16</b>		
Appropriate control arrangements are established at international points of entry, including, as necessary, representatives from the New Zealand Customs Service, New Zealand Immigration, public health services, transport authorities, port operators, airline representatives, the New Zealand Police, the Ministry of Agriculture and Forestry, and other relevant parties. Target: Within three hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 5
<b>Results</b>		
<p>Appropriate control arrangements were established with representation from relevant agencies within the specified timeframe.</p> <p>Feedback from evaluation material and debriefs confirms that there was strong interagency engagement.</p> <p>For further improvement, border agencies recommended that:</p> <ul style="list-style-type: none"> <li>• relevant agencies collaborate to develop joint training programmes for health, border and other relevant agencies</li> <li>• health and border agencies update border management guidelines</li> <li>• border management staff are trained on their roles and responsibilities during a pandemic event</li> <li>• pre-screening of passengers should be considered as an alternative to the screening of all passengers.</li> </ul>		
<b>Key issues</b>		
<p>Not all District Health Boards reported on their border activities, but debriefs demonstrated that most areas successfully completed this and other border activities satisfactorily.</p> <p>The debriefs also demonstrated that key agencies at the local and national levels are keen to build on the lessons learnt and advance the border management work programme. This is not only relevant for pandemic issues, but also to meet requirements in the international health regulations for other infectious diseases, and expectations concerning security at the border for terrorist-related events.</p>		
<b>Recommendations</b>		
<p>The Ministry of Health, in liaison with the intersectoral Border Working Group, to progress a work programme, taking into account synergies with the new international health regulations. This will include:</p> <ul style="list-style-type: none"> <li>• bringing together key personnel from different sites to share lessons learnt during the exercise</li> <li>• revising guidelines and standard operating procedures to take account of the lessons learnt during the exercise</li> <li>• addressing gaps in procedures (for example, how to quarantine aircrews)</li> <li>• completing the development of border resources</li> <li>• reviewing the potential for passenger pre-screening</li> <li>• reviewing quarantine arrangements, procedures and responsibilities as a first priority</li> <li>• reviewing plans for exit screening</li> <li>• developing an exercise programme, including an exercise on quarantine as the first priority.</li> </ul>		

<b>Performance indicator 17</b>		
Procedures compliant with national border guidelines for identifying cases and contacts, isolating and treating cases, quarantining relevant passengers and crew, and providing information for other passengers and crew are established at all ports of entry. Target: Three hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 4
<b>Results</b>		
Standard procedures compliant with national border guidelines were established within the specified timeframe.  One respondent observed that at their site although the objective was met it was impractical for health staff to interview passengers at an airport as this would be time-consuming and result in delays to other flow-on activities, such as getting passengers off site and into quarantine facilities.		
<b>Key issues</b>		
The Border Working Group has identified that the issue of interviewing passengers requires further consideration.		
<b>Recommendations</b>		
See performance indicator 16.		

<b>Performance indicator 18</b>		
Information is available for quarantined passengers outlining their responsibilities and rights.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 4
<b>Results</b>		
Information was made available to quarantined passengers, outlining their responsibilities and rights, and respondents noted that they believed the information would adequately inform quarantined passengers.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

<b>Performance indicator 19</b>		
The means of transport to quarantine venues are identified and notionally secured. Target: Four hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 4
<b>Results</b>		
The means of transport to quarantine venues were identified and notionally secured within the specified timeframe.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
See performance indicators 16 and 20.		

<b>Performance indicator 20</b>		
Venues with sufficient space and adequate facilities for quarantining relevant arriving passengers are identified and notionally secured. Target: Four hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 3
<b>Results</b>		
Venues with sufficient space and facilities were secured within the specified timeframe. However, comments at debriefs indicated that this issue has not yet been adequately assessed in many localities, and requires further work. Capacity in Auckland, the main port of entry, is a particular issue.		
<b>Key issues</b>		
Very few responded to this performance indicator. It was recommended at the debriefs that border-related quarantine exercises are undertaken over the next 12 months, so that arrangements for quarantine can be further assessed and tested. Venues identified to date may not offer sufficient capacity to meet the potential maximum short-term demand, particularly in Auckland, and further work needs to be carried out. The Exercise Health Sector and Intersectoral Advisory Groups regard addressing issues concerning quarantine as a very high priority.		
<b>Recommendations</b>		
It is recommended that the Ministry of Health incorporates issues concerning quarantine and exercises for testing quarantine procedures into the border management work programme for 2007/08. See performance indicator 16.		

<b>Performance indicator 21</b>		
Staff to provide security at quarantine venues for the first 24 hours of operation are notionally identified and secured. Target: Four hours		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 3
<b>Results</b>		
<p>Respondents were able to notionally identify and secure security staff for the first 24 hours of operation at quarantine venues within the specified timeframe.</p> <p>However debrief meetings confirmed that it will be very difficult to secure a large number of staff to carry out this function, and that further work will be required.</p>		
<b>Key issues</b>		
See performance indicator 20.		
<b>Recommendations</b>		
See performance indicators 16 and 20.		

<b>Performance indicator 22</b>		
Agency responsibilities for support systems for passengers placed in facility quarantine are identified, and evidence is provided that programmes can be implemented for supplying food, medical care, interpreting services, information for relatives, friends and relevant embassies and consulates, and income support and other welfare needs. Target: Six hours.		
<b>Scope:</b> Border management	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 2
<b>Results</b>		
<p>Only two agencies identified responsibilities concerning support programmes for passengers in facility quarantine.</p> <p>Respondents reported that:</p> <ul style="list-style-type: none"> <li>• support programmes appeared viable as long as four hours' notice was given to the quarantine location to set up</li> <li>• relationships and communications between agencies are well established and will enhance the ability to provide good support programmes.</li> </ul>		
<b>Key issues</b>		
These conclusions are based on responses from only two respondents, so it cannot be assumed that this problem is under control across the country.		
<b>Recommendations</b>		
See performance indicators 16 and 20.		

<b>Performance indicator 23</b>		
National reserve supplies of antiviral drugs can be released and deployed to public health services implementing border management operations in sufficient quantities for the first 48 hours of operation. Target: Three hours.		
<b>Scope:</b> Health sector	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 16
<b>Results</b>		
All respondents reported that reserve supplies of antiviral drugs could be released and deployed to public health services in sufficient quantities for the first 48 hours of operation, and 83 percent reported that they would be able to achieve this within the specified timeframe. Of those who said they would not be able to meet the timeframe, this was largely due to location, and the delays would be minimal.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

<b>Performance indicator 24</b>		
Records of people being assessed for antiviral drugs for treatment and post-exposure prophylaxis are made and forwarded to the Ministry of Health National Health Co-ordination Centre (data requirement as defined by the Pandemic Minimum Data Set).		
<b>Scope:</b> National Health Co-ordination Centre	<b>Day:</b> 1	<b>Number of respondents:</b> No responses were received on this performance indicator. The evaluation has been based on feedback gathered at debriefs and through other evaluation material.
<b>Results</b>		
The National Health Co-ordination Centre did not receive any records of people receiving antiviral drugs from treatment and post-exposure prophylaxis as defined by the Pandemic Minimum Data Set.		
<b>Key issues</b>		
<p>The Ministry of Health does not have established mechanisms to gather, record and report this data, other than via information or situation reports.</p> <p>(Note: Capturing statistical information on the assessment of people relating to the administration of antiviral drugs for the treatment of post-exposure prophylaxis is important during the keep it out and stamp it out phases. Data on the number of people who have been assessed and administered antiviral drugs will identify statistical trends, peaks and troughs, providing a valuable insight into the process for administering antiviral drugs. This information can then be used to adapt response activities to areas of greatest demand or need).</p>		
<b>Recommendations</b>		
It is recommended that the Ministry of Health continues to develop systems and processes for gathering, recording and reporting data about people being assessed for antiviral drugs for treatment and post-exposure prophylaxis at different phases of a pandemic response.		

## 5.5 Objective 5: Surveillance processes

To practise and validate the establishment of disease monitoring, surveillance and analysis processes.

Environmental Science and Research entered data on all suspect cases into the case report forms on the national database as required. The exercise demonstrated that systems for reporting cases in real time using EpiSurv (part of the SurviNZ platform) are working well.

### 5.5.1 Key issues

Environmental Science and Research developed epidemiological definitions, guidelines and templates and placed them on the appropriate website before the exercise. However, some health sector agencies did not access the information.

### 5.5.2 Performance indicators 25–28

Performance indicator 25		
Environmental Science and Research and the Ministry of Health develop epidemiological definitions, guidelines and templates and place them on a designated website or websites. Target time: Three hours.		
<b>Scope:</b> National Health Co-ordination Centre, Environmental Science and Research, health sector	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 15 <b>(Other)</b> Day 1 – 1
Results		
Environmental Science and Research placed initial definitions, guidelines and templates on the website before the exercise. Eighty percent of health sector respondents had access to the designated website.		
Key issues		
Twenty percent of respondents noted that they did not access the designated website.		
Recommendations		
It is recommended that: <ul style="list-style-type: none"> <li>• all relevant health sector agencies ensure they know where to access epidemiological information during an infectious diseases emergency</li> <li>• the Ministry of Health incorporates directions for accessing epidemiological information in the next version of the New Zealand Influenza Pandemic Action Plan.</li> </ul>		

<b>Performance indicator 26</b>		
Alerts concerning the placement of this information are notionally disseminated to health professionals in real time. Target: Three hours.		
<b>Scope:</b> National Health Co-ordination Centre, Environmental Science and Research, health sector	<b>Day:</b> 1	<b>Number of respondents (Health)</b> Day 1 – 15 <b>(Other)</b> Day 1 – 1
<b>Results</b>		
Respondents reported that they did not receive alerts regarding updates of this information. Environmental Science and Research reported that it did not send alerts about the placement of the epidemiological definitions, guidelines and templates on the designated website or websites to relevant health professionals, because it was not its responsibility.		
<b>Key issues</b>		
The Ministry of Health is responsible for alerting to health professionals about updates and any other health related information.		
<b>Recommendations</b>		
See performance indicator 8.		

<b>Performance indicator 27</b>		
Data concerning suspect cases is entered into case report forms on the national database provided by Environmental Science and Research.		
<b>Scope:</b> Environmental Science and Research	<b>Day:</b> 1	<b>Number of respondents (Other)</b> Day 1 – 1
<b>Results</b>		
Data on all suspect cases was entered into the case report forms on the national database. Current systems are working well.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
It is recommended that Environmental Science and Research continues its development of EpiSurv as part of its SurvINZ platform.		

<b>Performance indicator 28</b>		
Environmental Science and Research and the Ministry of Health implement a seamless system for receipting and analysing data, evidenced by standard operating procedures clearly identifying the roles and responsibilities of staff from Environmental Science and Research, Public Health Intelligence and Communicable Diseases Policy.		
<b>Scope:</b> Environmental Science and Research	<b>Day:</b> 1	<b>Number of respondents (Other)</b> Day 1 – 1
<b>Results</b>		
Environmental Science and Research had standard operating procedures that identified staff members' roles and responsibilities and described how a system could be implemented for the receipt and analysis of data. The data supplied by Environmental Science and Research to the National Health Co-ordination Centre was useful and appropriate, and the National Health Co-ordination Centre benefited from having an Environmental Science and Research officer on site during the exercise.		
<b>Key issues</b>		
The surveillance and intelligence function at the National Health Co-ordination Centre needs to be reviewed to streamline data gathering and analysis. There are also some issues around the clarification of roles and responsibilities and capacity.		
<b>Recommendations</b>		
It is recommended that the Ministry of Health, within the National Health Co-ordination Centre, identifies roles and responsibilities for receipting and disseminating information within the planning and intelligence function and that these are incorporated into standard operating procedures for an emergency infectious diseases response.		

## 5.6 Objective 6: National decision-making

### To practise and validate national decision-making arrangements.

A workshop was held on Day 2 of Exercise Cruickshank to develop jointly agreed advice for a notional Officials Committee for Domestic and External Security Co-ordination, and for relevant Ministers. The advice reflected input from all relevant agencies, and reviewed the benefits, costs and risks associated with options for action.

The exercise met its objectives within the exercise timeframes, resulting in the development of advice developed and endorsed by a wide group of agencies that had not met to consider such issues in real-time before the exercise. The outcome exceeded the expectations of Exercise Control.

#### 5.6.1 Key issues

During the workshop, it was identified that the framework developed to guide national intersectoral decision-making bodies at this level could be improved to expedite swift decision-making at senior levels.

It was noted that in a worst-case scenario officials would need to provide advice in a much tighter timeframe and any process development should take this into consideration.

## 5.6.2 Performance indicators 29–32

Performance indicator 29		
<p>Develop jointly agreed advice for domestic and external security co-ordination, recommending action relating to the key decisions noted in the New Zealand Influenza Pandemic Action Plan, Scenario 5.1 on border management options. The advice will reflect input from relevant national agencies and designated officers concerned with that decision, and will review the benefits, costs and risks associated with any options for action.</p>		
<p><b>Scope:</b> National intersectoral</p>	<p><b>Day:</b> 1 (discussion exercise)</p>	<p><b>Number of respondents:</b> discussion facilitator, and information from cold debriefs</p>
Results		
<p>Several agencies attended the Day 1 border management discussion exercise, which the New Zealand Customs Service chaired.</p> <p>The Ministry of Health initiated the discussions with a presentation providing the context for the required decisions, a summary of the decisions needed, and draft recommendations for consideration. The discussion went well, and all participants noted that it was a valuable exercise. Several initiatives were considered as part of this discussion and recommendations were developed, and were placed before a notional Officials Committee for Domestic and External Security Co-ordination after the exercise.</p> <p>Agreement was reached on the key recommendations to be notionally put forward to the Officials Committee for Domestic and External Security Co-ordination within the specified timeframe.</p>		
Key issues		
<p>It can be argued that the exercise format allowed too much time for decisions to be made and summarised in a template. In a worst case scenario, key decisions would need to be made with greater speed (for example, so that more aircraft from affected areas could be prevented from leaving or turned back, thus reducing the pressure on border agencies). However, it can also be argued that in some circumstances officials would have greater warning, and would have days or even weeks in which to develop advice.</p> <p>Senior decision-making bodies such as the Officials Committee for Domestic and External Security Co-ordination are very experienced in making fast decisions in real time in real events.</p> <p>Some participants or observers felt that the recommendations should have more closely followed the recommendations in Appendix F of the New Zealand Influenza Pandemic Action Plan. It was also observed that critical decision-makers such as the Director of Public Health and some other government agencies would normally be at the table, putting forward their case. Their input could mean recommendations might differ from those agreed by the officials present at this discussion exercise.</p> <p>Some felt that the content of the template could be improved to assist more rapid decision-making at more senior levels. The content was comprehensive, but something more succinct and more quickly produced would be required to inform fast decision making by senior staff in a worst case scenario.</p> <p>The exercise format did not allow time for the Watch Group to consider the recommendations before their presentation to the Officials Committee for Domestic and External Security Co-ordination, nor did it allow individual agency officials to notionally brief their chief executives attending the Officials Committee for Domestic and External Security Co-ordination.</p> <p>Some participants observed that it would have been more valuable to have held this component of the exercise before Day 1, so that the deployment and table-topping on Day 1 would be based on the actual decisions made.</p>		

### Key issues (continued)

Some participants noted that in normal circumstances they would be involved in other aspects of the emergency response, rather than devoting their time solely to developing recommendations for government. This reflects the fact that some agencies rely too heavily on one or two officials with the right knowledge and/or seniority to make well-informed decisions. Such agencies are vulnerable in an emergency, and must make efforts to ensure their knowledge and skills base is more widely spread in their organisation, and not dependent on one or two people, for this or other large-scale emergencies. It has been generally agreed that this component of the exercise was valuable, and should be repeated in the future, taking into account the lessons learnt in Exercise Cruickshank. See performance indicator 31.

### Recommendations

It is recommended that:

- future emergency exercises have a similar discussion exercise component when appropriate, but with additional components involving a notional Watch Group and a notional Officials Committee for Domestic and External Security Co-ordination on the day (future practice will enable officials to streamline real-time decision-making processes)
- agencies likely to be involved in a significant emergency response ensure they have more than one or two staff with the required knowledge and expertise to take a lead role in a real event
- the Ministry of Health, for infectious disease emergencies, develops clear terms of reference, frameworks and procedures for advisory and decision-making groups, so roles and accountabilities are unambiguous and processes can be streamlined. The approach should mirror and complement similar initiatives that may be undertaken by other agencies.

### Performance indicator 30

Develop jointly agreed advice for relevant Ministers concerning the release of emergency powers under relevant legislation, and identify the timeframes it will take for those powers to be released under urgency, if approved.

**Scope:** National intersectoral

**Day:** 1  
(discussion exercise)

**Number of respondents:** discussion facilitator, and information from cold debriefs

### Results

The group discussed the need to make recommendations to the Prime Minister. These recommendations would advise whether an epidemic notice was needed under the Epidemic Preparedness Act 2006 to release the special powers of Medical Officers of Health.

The group decided these additional powers were not required to implement and manage the recommended border management actions. The National Health Co-ordination Centre should address the decision to release the other special powers in the Health Act 1956 when considering the control and management of the novel virus if it enters New Zealand.

The group decided no special statutory powers were required at that time to implement the recommended measures.

### Key issues

In addition to the comments under performance indicator 29, work needs to be completed on Orders in Council to speed up the release of powers in a real event.

<b>Recommendations</b>
<p>The following are recommended.</p> <ul style="list-style-type: none"> <li>• Relevant agencies prepare Orders in Council, as provided in section 11(1) of the Epidemic Preparedness Act 2006 and requested by Cabinet in October 2006, to modify existing laws to enable greater flexibility during a pandemic emergency. For the Ministry of Health, three laws require modification. <ul style="list-style-type: none"> <li>– The Health Practitioners Competence Assurance Act 2003 needs to be modified to permit occupational boundary crossing.</li> <li>– The Health and Disability Services (Safety) Act 2001 needs to be modified so hospitals, rest homes and other health services can comply with more flexible standards in an emergency.</li> <li>– The Medicines Act 1981 and the regulations made under that Act need to be modified to relax provisions concerning the supplies of medicines.</li> </ul> </li> <li>• The Ministry of Health to complete frequently asked questions to provide guidance to Medical Officers of Health on their powers under the relevant Acts.</li> </ul>

<b>Performance indicator 31</b>		
Identify and document priorities and responsibilities for action on outstanding policy and/or programme issues arising from the discussion.		
<b>Scope:</b> National intersectoral	<b>Day:</b> 1 (discussion exercise)	<b>Number of respondents:</b> discussion facilitator, and information from cold debriefs
<b>Results</b>		
<p>Participants thought this discussion exercise was worthwhile and resulted in a positive outcome for the future development of plans and revision of key decision points.</p> <p>No outstanding policy or programme issues were identified. However, participants stated that to enhance the effectiveness of future meetings of this type the following process should be addressed:</p> <ul style="list-style-type: none"> <li>• A clearer decision-making process would give greater structure to the meeting.</li> <li>• People attending need to be well briefed, know the plan and be cognisant of the issues and previous policy. This would avoid inappropriate discussion and the revision of issues addressed previously.</li> <li>• Participants need to read and understand draft key recommendations and supporting information before the meeting to allow the meeting to focus on making decisions.</li> <li>• Trade offs, in terms of the advantages and disadvantages of different options, need to be succinctly captured.</li> <li>• For the exercise to be beneficial and worthwhile, the people attending should reflect the actual people who would be required in a real event.</li> <li>• Discussion needs to be kept focused to ensure timely and appropriate decisions are made.</li> <li>• Terms of reference are needed for this group to clarify its purpose and ensure a 'discussion group' culture does not take over the focus of the meeting.</li> <li>• The interface with other types of groups needs to be considered, for example, with the Ministry of Health-led Pandemic Technical Advisory Group.</li> <li>• All key government agencies should participate in an exercise like this to make it valuable and beneficial for all concerned.</li> </ul>		
<b>Key issues</b>		
Respondents identified the need for greater clarity around the decision-making process during a real pandemic event.		
<b>Recommendations</b>		

See performance indicator 29.

#### Performance indicator 32

Joint consideration and development of advice for responding to notional requests for assistance from Pacific countries.

**Scope:** National intersectoral

**Day:** 1

**Number of respondents (Other)**

Day 1 – 1

#### Results

Advice was jointly developed by key agencies, and the performance indicator was met. During a real event, this matter will require careful consideration.

#### Key issues

No issues related to this performance indicator.

#### Recommendations

None.

## 5.7 Objective 7: Cases

**To practise and validate policies and procedures for the identification and treatment of cases.**

Suspect cases were managed in an appropriate and timely manner, and all data on suspect cases was entered into the case report forms in the required timeframe.

#### Performance indicator 33

Suspect cases are managed by initial information gathering, isolation, medical assessment, treatment and notional interrogation for contacts within one hour of confirmation as a suspect case.

**Scope:** Health sector

**Day:** 2

**Number of respondents (Health)**

Day 2 – 21

#### Results

Respondents managed suspect cases using initial information gathering and isolation, and the great majority of respondents also managed suspect cases using medical assessment, treatment and interrogation for contacts within the specified timeframe.

#### Key issues

No issues related to this performance indicator.

#### Recommendations

None.

<b>Performance indicator 34</b>		
The relevant Medical Officer of Health alerts the National Health Co-ordination Centre and the regional co-ordinator within 30 minutes of the detection of the first suspect case in a public health district.		
<b>Scope:</b> National Health Co-ordination Centre	<b>Day:</b> 2	<b>Number of respondents:</b> No responses were received on this performance indicator.
<b>Results</b>		
This performance indicator could not be assessed due to an absence of evaluation material.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

<b>Performance indicator 35</b>		
Data concerning suspect cases is entered into case report forms on the national database (EpiSurv) provided by Environmental Science and Research within one hour of notification.		
<b>Scope:</b> Environmental Science and Research	<b>Day:</b> 2	<b>Number of respondents (Other)</b> Day 2 – 1
<b>Results</b>		
Environmental Science and Research reported that data on all suspect cases was entered into the case report forms on the national database (EpiSurv) within one hour of notification.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

## 5.8 Objective 8: Contact tracing

### To practise and validate policies and procedures for the identification, quarantine and post-exposure prophylaxis of contacts.

All health agencies commenced tracing contacts within the required timeframe, and appropriate systems were in place to ensure contacts would be supplied with antiviral drugs. Consistent instructions on quarantine were available when contacts were interviewed.

Most District Health Board public health services could demonstrate that they could maintain cluster control operations in affected areas over a one-week period by identifying additional staff and volunteers for shifts and co-ordination with surrounding districts for additional resources if required.

Most District Health Board public health services also had adequate fast-tracking training programmes to enable inexperienced staff and volunteers to commence contract tracing and other related activities in a timely manner.

Procedures for closing an educational institution and initiating contract tracing within that institution were effectively practised within the Wellington region. The Ministry of Education identified the need to ensure that communications between the education and health sectors are aligned and robust.

Real-time procedures for ensuring the safety of staff and security of Tamiflu supplies when distributing Tamiflu to contacts and quarantined cases were identified.

Many respondents commented that cluster control had improved markedly since it was practised in Exercise Makgill.

**5.8.1 Key issues**

Doubts were expressed about the ability to maintain cluster control operations in addition to maintaining border control operations over an extended period. Solutions need to be found.

**5.8.2 Performance indicators 36–41**

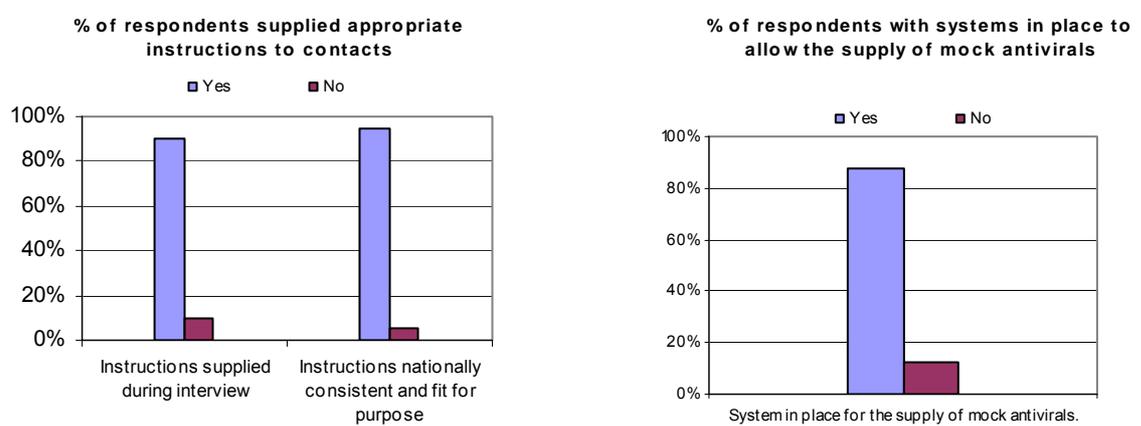
<b>Performance indicator 36</b>		
The tracing of contacts commences within one hour of the completion of information gathering from a suspect case.		
<b>Scope:</b> Health Sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 20
<b>Results</b>		
<p>All health sector agencies evaluated had commenced contact tracing within one hour of gathering information from suspect cases. However, many District Health Boards stated that this was not applicable to their district as this is the sole responsibility of the public health units.</p> <p>Public health units are primarily responsible for this activity, but District Health Boards may be required to provide support for this activity during a pandemic event.</p> <p>There were incidents of incorrect information flowing between the public health units and District Health Boards, resulting in errors in case and contact data. It is reassuring that these errors were proactively identified and corrected.</p>		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

**Performance indicator 37**

Systems are in place for contacts to be supplied with mock antiviral drugs and nationally consistent instructions on quarantine at the time of interview.

<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 24
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**Results**



Evaluation feedback indicated that 88 percent of health sector agencies had systems to supply mock antiviral drugs. Of these respondents, 62 percent had supply systems that were deemed very effective and 38 percent had supply systems that were deemed somewhat effective. No system was deemed ineffective.

The second portion of this performance indicator related specifically to instructions on quarantine, whether they were issued during interviews and whether they were consistent with national expectations and fit for purpose. Ninety percent of responses indicated that instructions were issued to contacts during interviews. Of the instructions used, 94 percent were consistent with national expectations (that is, aligned with the requirements of the New Zealand Influenza Pandemic Action Plan) and deemed fit for purpose.

**Key issues**

Overall, systems and processes are working very well.

In some instances, the following supply system issues were identified.

- A longer than anticipated period was taken to get Tamiflu distributed.
- Confusion existed about the supply and information and advice process.
- Volunteers were depended on for assisting with the delivery of mock antiviral drugs.

**Recommendations**

It is recommended that public health services build on the experiences of Exercise Cruickshank when revising their procedures for providing antiviral drugs and advice on quarantine.

<b>Performance indicator 38</b>		
<p>Public health services demonstrate the ability to maintain cluster control operations in affected areas over an initial one-week period by identifying additional staff or volunteers for shifts, if required, from other sources in the district and/or the region.</p> <p>Assume both entry- and exit-screening procedures are staffed at international ports of entry at this time.</p>		
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 23
<b>Results</b>		
<p>Ninety-one percent of respondents demonstrated an ability to maintain and resource cluster control operations for an initial period of one week. This was evidenced through the establishment of staff rosters, compliance with Public Health Unit cluster control guidelines where appropriate, and the witnessing of contact with surrounding districts for additional resources.</p> <p>Several respondents noted a marked improvement in their response in comparison with responses in Exercise Makgill.</p>		
<b>Key issues</b>		
<p>Some respondents commented on a lack of clarity between the cluster control phase and the pandemic management phase. In particular, confusion exists about when people should and should not be quarantined.</p> <p>Some respondents commented on the pressure placed on Medical Officers of Health in this phase, given that both cluster control and border management activities take place concurrently.</p> <p>Some skills will be in short supply in affected areas (for example, those of Medical Officers of Health). Therefore, priorities for Medical Officers of Health in these circumstances need to be carefully considered.</p> <p>At this stage, other districts unaffected by cluster outbreaks may need to provide staff to assist in managing the response in affected districts.</p> <p>Given the importance of sustaining a public health response at this phase, it is important to consider the lessons learnt during Exercises Makgill and Cruickshank in order to enhance planning across the country.</p>		
<b>Recommendations</b>		
<p>It is recommended that the:</p> <ul style="list-style-type: none"> <li>• Ministry of Health facilitates meeting(s) of public health service representatives (including public health managers and Medical Officers of Health) to review the local solutions for resourcing public health interventions in order to inform future planning. This will include consideration of how demands on the time of Medical Officers of Health can best be managed during a national health emergency. Guidelines can then be developed.</li> <li>• National Health Co-ordination Centre, in future exercises and responses, gives greater guidance to Medical Officers of Health about the type and level of interventions to apply in order to ensure greater national consistency and support at this and other pandemic response phases.</li> <li>• Ministry of Health, in consultation with Medical Officers of Health, considers providing more comprehensive guidance on the trigger points for implementing public health control measures in this and other phases.</li> </ul>		

<b>Performance indicator 39</b>								
Public health services identify the content and format of fast-track training programmes to enable outside staff and volunteers to commence contact tracing and other activities within four hours of arrival in the affected area.								
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 17						
<b>Results</b>								
<p>Eighty-eight percent of respondents demonstrated an ability to identify the content and format of a fast-tracked training programme allowing health sector staff and volunteers to commence contact. A training programme cited<sup>4</sup> was comprehensive and could be used as a guide for other public health units that may wish to enhance their current fast-track programmes.</p> <p>Several public health units also took this opportunity to train staff on contact tracing in the weeks leading up to Exercise Cruickshank. Some public health units have also developed pre-packed contact tracing kits<sup>5</sup> that were ready for issue and use.</p>		<p><b>Respondents that identified content and format of fast tracking orientation programmes for contact tracing.</b></p> <table border="1"> <caption>Respondents that identified content and format of fast tracking orientation programmes for contact tracing.</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>88%</td> </tr> <tr> <td>No</td> <td>12%</td> </tr> </tbody> </table>	Response	Percentage	Yes	88%	No	12%
Response	Percentage							
Yes	88%							
No	12%							
<b>Key issues</b>								
<p>Physical catchments and district size are factors affecting the period in which contact tracing can be commenced.</p> <p>Not all public health units had fast-track training programmes.</p> <p>A greater sharing of resources between public health services should be encouraged to prevent unnecessary reinvention.</p>								
<b>Recommendations</b>								
See performance indicator 38.								

<sup>4</sup> Dunedin Public Health Service (Public Health South).

<sup>5</sup> Taranaki Public Health Unit.

<b>Performance indicator 40</b>		
Procedures for contact tracing within, and the closure of, educational institutions are practised in the Wellington region.		
<b>Scope:</b> Health sector (Public Health Units, District Health Boards and Ministry of Education)	<b>Day:</b> 2	<b>Number of respondents (Other)</b> Day 2 – 1
<b>Results</b>		
<p>Evaluation materials received from the Ministry of Education confirmed that this performance indicator was achieved, but issues and gaps were identified.</p> <ul style="list-style-type: none"> <li>• Gaps were identified in communication channels between the health and education sectors, both locally and nationally.</li> <li>• Gaps were identified in communication channels within the education sector.</li> <li>• Respondents rated these procedures as semi-effective.</li> </ul>		
<b>Key issues</b>		
<p>No issues specifically related to this performance indicator, but other gaps and issues were identified. There was a suggestion that positioning medical staff at schools would assist in the communication between education institutions and the health sector. However, the health sector will not have the resources in a pandemic to provide this support. One possible solution is that this role could be partially delivered through the existing school nurse or nurse equivalent, who should exist at most educational institutions.</p>		
<b>Recommendations</b>		
<p>It is recommended that the:</p> <ul style="list-style-type: none"> <li>• Ministry of Health and Ministry of Education work together to improve communication between the health and education sectors at a local level</li> <li>• Ministry of Education enhances pandemic preparedness by providing additional resources and guidance for early childhood education services, schools and tertiary education organisations, building on lessons learnt from Exercise Cruickshank.</li> </ul>		

Performance indicator 41																	
Identify the real-time procedures for ensuring the safety of staff who are distributing Tamiflu to contacts or cases quarantined in the community, and the security of Tamiflu supplies.																	
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 22															
Results																	
<p>Eighty-two percent of respondents had documented and available procedures for ensuring staff safety. Ninety-four percent of respondents with procedures had procedures that were deemed fit for purpose and 94 percent of staff interviewed were aware of procedures.</p> <p>In addition, 94 percent of respondents indicated that processes were in place to ensure the security of Tamiflu supplies.</p>		<p><b>% of respondents that identified real-time procedures for distributing Tamiflu.</b></p> <table border="1"> <caption>Data for Tamiflu Procedures Chart</caption> <thead> <tr> <th>Category</th> <th>Yes (%)</th> <th>No (%)</th> </tr> </thead> <tbody> <tr> <td>Documented and available procedures</td> <td>82</td> <td>18</td> </tr> <tr> <td>Are the procedures fit for purpose?</td> <td>94</td> <td>6</td> </tr> <tr> <td>Staff awareness of procedures</td> <td>94</td> <td>6</td> </tr> <tr> <td>Process to secure Tamiflu supplies</td> <td>94</td> <td>6</td> </tr> </tbody> </table>	Category	Yes (%)	No (%)	Documented and available procedures	82	18	Are the procedures fit for purpose?	94	6	Staff awareness of procedures	94	6	Process to secure Tamiflu supplies	94	6
Category	Yes (%)	No (%)															
Documented and available procedures	82	18															
Are the procedures fit for purpose?	94	6															
Staff awareness of procedures	94	6															
Process to secure Tamiflu supplies	94	6															
Key issues																	
No issues related to this performance indicator.																	
Recommendations																	
None.																	

## 5.9 Objective 9: Quarantine support

To identify options to ensure that the needs of people in quarantine at home are met.

This objective was assessed in the health sector emergency operations centres.

### 5.9.1 Key issues

The issue of meeting the essential needs of people quarantined at home has not been adequately addressed in previous planning. Agencies across the whole of government have identified this as a weakness, and are working to address this gap in the current response and recovery plans.

## 5.9.2 Performance indicators 42–45

<b>Performance indicator 42</b>		
Identify responsibilities and methods for the delivery of food and other critical supplies to people quarantined at home in each district.		
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 19
<b>Results</b>		
Eighty-nine percent of health sector agencies evaluated identified delivery methods and responsibilities for providing food and critical supplies. However, many District Health Boards identified that the delivery methods and responsibilities were applicable only to public health units.		
<b>Key issues</b>		
Quarantine is an intervention applied by public health authorities. Therefore, public health authorities have a responsibility for ensuring that people placed in quarantine have adequate support, so their needs are met and they are less tempted to break quarantine. Many will be able to get such support from family and friends. While it remains a public health responsibility to see that needs are met, it is generally recognised that other agencies will need to assist public health services in this duty. The exercise demonstrated that such support was available in many localities.		
<b>Recommendations</b>		
It is recommended that the Ministry of Health facilitates the sharing of information among public health services on local solutions for providing support (particularly, for food and other critical supplies) for people in quarantine in order to enhance future plans.		

<b>Performance indicator 43</b>		
Identify responsibilities and methods for meeting quarantined people's welfare needs.		
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 21
<b>Results</b>		
Ninety-five percent of respondents indicated that responsibilities and methods for meeting the welfare needs of people in quarantine had been considered.  The welfare advisory groups that form a component of civil defence networks are experienced in delivering welfare services. Exercise Cruickshank demonstrated that such groups can meet welfare requirements in this phase of a pandemic.		
<b>Recommendations</b>		
See performance indicator 42.  It is recommended that public health services liaise with the welfare advisory groups attached to civil defence groups to ensure income support and other welfare sector responsibilities can be met for people placed in quarantine.		

Performance indicator 44											
Identify responsibilities and methods for meeting quarantined people's health needs.											
Scope: Health sector (Public Health Units and District Health Boards)	Day: 2	Number of respondents (Health) Day 2 – 20									
Results											
<p>Ninety percent of respondents indicated that responsibilities and methods for meeting the health needs of people in quarantine had been considered. Of these respondents, 94 percent believed the methods proposed were practical.</p> <p>Current arrangements are satisfactory.</p>		<p><b>% of respondents that identified responsibilities for and methods for meeting health needs for people in quarantine.</b></p> <table border="1"> <caption>Data for % of respondents that identified responsibilities for and methods for meeting health needs for people in quarantine.</caption> <thead> <tr> <th>Question</th> <th>Yes (%)</th> <th>No (%)</th> </tr> </thead> <tbody> <tr> <td>Were responsibilities and methods identified for meeting health needs of people quarantined at home?</td> <td>90</td> <td>10</td> </tr> <tr> <td>Do the methods seem practical?</td> <td>94</td> <td>6</td> </tr> </tbody> </table>	Question	Yes (%)	No (%)	Were responsibilities and methods identified for meeting health needs of people quarantined at home?	90	10	Do the methods seem practical?	94	6
Question	Yes (%)	No (%)									
Were responsibilities and methods identified for meeting health needs of people quarantined at home?	90	10									
Do the methods seem practical?	94	6									
Key issues											
Some respondents suggested that a household identifier for people in quarantine be introduced to address the need for identifying people with additional health needs. This identifier (which would be virtual, using geographic information systems and data analysis software) could provide valuable information on additional health needs and location. This could be expanded to capture information additional to health needs, for example, welfare needs.											
Recommendations											
The Ministry of Health consider the merits of adopting a household identifier.											

Performance indicator 45														
Identify responsibilities, methods and content for the fast-track orientation of staff and volunteers who may visit homes to provide services, incorporating health and safety issues. Orientation should enable staff and volunteers to commence duties within four hours.														
<b>Scope:</b> Health sector (Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 20												
Results														
<p>Eighty-five percent of respondents indicated that responsibilities and methods for the fast-tracked orientation of staff and volunteers had been identified. Of these respondents, 94 percent deemed the methods were practical. In addition, 89 percent of respondents indicated that fast-track programmes would allow staff and volunteers to commence required duties within four hours.</p> <p>The District Health Boards that indicated they could not ensure the commencement of staff and volunteer orientation within four hours, indicated that it would require up to 24 hours.</p>		<p><b>% of respondents that identified responsibilities, methods for fast tracking orientation of staff and volunteers.</b></p> <table border="1"> <caption>Data for Figure: % of respondents that identified responsibilities, methods for fast tracking orientation of staff and volunteers.</caption> <thead> <tr> <th>Question</th> <th>Yes (%)</th> <th>No (%)</th> </tr> </thead> <tbody> <tr> <td>Fast tracking responsibilities and method identified</td> <td>85</td> <td>15</td> </tr> <tr> <td>Do the methods seem practical?</td> <td>94</td> <td>6</td> </tr> <tr> <td>Would commence duties in four hours</td> <td>89</td> <td>11</td> </tr> </tbody> </table>	Question	Yes (%)	No (%)	Fast tracking responsibilities and method identified	85	15	Do the methods seem practical?	94	6	Would commence duties in four hours	89	11
Question	Yes (%)	No (%)												
Fast tracking responsibilities and method identified	85	15												
Do the methods seem practical?	94	6												
Would commence duties in four hours	89	11												
Key issues														
Different districts identified different solutions to the problem of training staff and volunteers fast enough. These solutions should be shared so plans can be strengthened.														
Recommendations														
See performance indicator 38.														

## 5.10 Objective 10: Surveillance information

**To collate, analyse and disseminate surveillance information on the spread of influenza in order to inform policy and operational decisions at local, regional and national levels.**

Data on suspect, probable and confirmed cases was supplied by Environmental Science and Research every four hours as required to the National Health Co-ordination Centre through situational reports co-ordinated by the regional co-ordination centres.

Performance indicator 46								
Data on suspect, probable and confirmed cases is supplied by Environmental Science and Research to the Ministry of Health and public health services every four hours.								
<b>Scope:</b> Health sector (District Health Boards, Public Health Units and National Health Co-ordination Centre) and Environmental Science and Research	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 20 <b>(Other)</b> Day 2 – 1						
Results								
<p>Fifty-three percent of responses received from the health sector indicated that they did receive case data.</p> <p>The evaluation of this performance indicator at Environmental Science and Research indicated that data was supplied to the Ministry of Health every four hours as required.</p> <p>When information was not received, the breakdown in information flow occurred in the transfer of information from the National Health Co-ordination Centre to Public Health Units and District Health Boards, or it may have been a failure of communications between public health services and District Health Board emergency operations centres.</p> <p>The supply of up-to-date suspect, probable and confirmed case data is critical to maintaining an ongoing and sustainable cluster control activity. Bottlenecks in the information flow, whether created by the infrastructure or people, must be identified and resolved.</p>		<p><b>Was data on suspect, probable and confirmed cases provided by ESR every four hours?</b></p> <table border="1"> <caption>Was data on suspect, probable and confirmed cases provided by ESR every four hours?</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>53%</td> </tr> <tr> <td>No</td> <td>47%</td> </tr> </tbody> </table>	Response	Percentage	Yes	53%	No	47%
Response	Percentage							
Yes	53%							
No	47%							
Key issues								
<p>The introduction of WebEOC, various information technology and communication problems, and a combination of information flow problems within the National Health Co-ordination Centre during the exercise days are potential reasons for the failure of suspect, probable and confirmed case data being received by District Health Boards.</p> <p>In addition, no single person appeared to have delegated responsibility within the National Health Co-ordination Centre to ensure information was disseminated and received.</p> <p>Issues around information flows through the health sector, include:</p> <ul style="list-style-type: none"> <li>• staff being unfamiliar with the new technology (for example, WebEOC)</li> <li>• confusion between information provided by emails and WebEOC</li> <li>• poorly identified roles and responsibilities in the National Health Co-ordination Centre for the management of information flows.</li> </ul>								
Recommendations								
See performance indicators 2 and 28.								

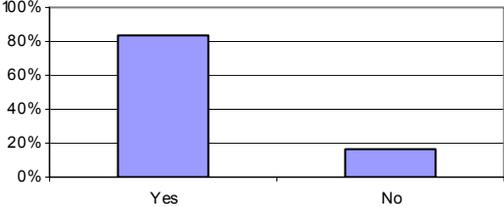
<b>Performance indicator 47</b>								
Reports on numbers and types of contacts are included in situation reports supplied to the National Health Co-ordination Centre by District Health Boards emergency operations centres through regional co-ordination centres.								
<b>Scope:</b> Health sector (District Health Boards, Public Health Units and National Health Co-ordination Centre)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 26						
<b>Results</b>								
<p>Eighty-eight percent of responses indicated that reports detailing the number of contacts were supplied to the National Health Co-ordination Centre in a timely manner.</p> <p>The reports produced at the end of Day 2 reflect the content of information supplied by District Health Boards, demonstrating that the information was received.</p>	<p style="text-align: center;"><b>Reports contain details of contact numbers</b></p> <table border="1"> <caption>Data for Reports contain details of contact numbers</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>88%</td> </tr> <tr> <td>No</td> <td>12%</td> </tr> </tbody> </table>		Response	Percentage	Yes	88%	No	12%
Response	Percentage							
Yes	88%							
No	12%							
<b>Key issues</b>								
<p>No issues related to this performance indicator.</p> <p>Environmental Science and Research in conjunction with some public health services piloted the use of a new contact-tracing system. The lessons learnt should be considered to assist the future development of this and other tools for streamlining contact-tracing activities across the country.</p>								
<b>Recommendations</b>								
It is recommended that Environmental Science and Research and the Ministry of Health continue to advance systems for the rapid reporting of contacts to assist with contact-tracing activities, building on lessons learnt during the exercise.								

<b>Performance indicator 48</b>		
Reports on projected trends are included in national situation reports, based on analysis at a national level.		
<b>Scope:</b> Health sector (National Health Co-ordination Centre)	<b>Day:</b> 2	<b>Number of respondents:</b> No responses were received in relation to this performance indicator. The evaluation has been based on feedback gathered at debriefs and through other evaluation material.
<b>Results</b>		
National situation reports included projected trends.		
<b>Key issues</b>		
Evaluators questioned the quality of some of the information provided.		
<b>Recommendations</b>		
See the recommendations for Objectives 1 and 3 about situation reporting and the validation of information.		

## 5.11 Objective 11: Supplies

**To ensure critical supplies are available to support cluster control operations.**

Most relevant health agencies confirmed that they could release and distribute national reserve supplies of personal protective equipment, antiviral drugs and antibiotics to affected areas when required.

<b>Performance indicator 49</b>								
National reserve supplies of personal protective equipment, antiviral drugs and antibiotics are notionally released and distributed to affected areas to support the immediate implementation of cluster control operations.								
<b>Scope:</b> Health sector (National Health Co-ordination Centre, Public Health Units and District Health Boards)	<b>Day:</b> 2	<b>Number of respondents (Health)</b> Day 2 – 25						
<b>Results</b>								
Eighty-four percent of respondents, all of which were District Health Boards, indicated that the notional release and distribution to support the immediate implementation of cluster control operations were successfully carried out.	<p><b>Were supplies of personal protective equipment, antivirals and antibiotics notionally released and distributed to support immediate implementation of cluster control operations?</b></p>  <table border="1"> <caption>Data for Bar Chart: Were supplies of personal protective equipment, antivirals and antibiotics notionally released and distributed to support immediate implementation of cluster control operations?</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>84%</td> </tr> <tr> <td>No</td> <td>16%</td> </tr> </tbody> </table>		Response	Percentage	Yes	84%	No	16%
Response	Percentage							
Yes	84%							
No	16%							
<b>Key issues</b>								
No issues related to this performance indicator. District Health Boards and public health services that experienced difficulty distributing supplies should consult services in other areas for potential ways to improve the distribution.								
<b>Recommendations</b>								
None.								

<b>Performance indicator 50</b>		
Timeframes are identified for the potential delivery of additional antiviral drugs, personal protective equipment and antibiotics to each District Health Board from the national reserve in the event of an uncontrolled pandemic.		
<b>Scope:</b> National Health Co-ordination Centre and health sector	<b>Day:</b> 2	<b>Number of respondents:</b> No responses were received in relation to this performance indicator.
<b>Results</b>		
No responses were received for this performance indicator.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

## 5.12 Objective 12: Public health intervention decisions

**To practise and assess national and local decision-making arrangements concerning the size and scope of public health interventions to be implemented to control clusters.**

On Day 2 of Exercise Cruickshank a second discussion workshop was held to develop mock advice for the Officials Committee for Domestic and External Security Co-ordination. Recommendations were made in relation to the key decisions noted in the New Zealand Influenza Pandemic Action Plan concerning public health interventions. The advice reflected input from relevant agencies and reviewed the benefits and risks associated with options for action.

Combined advice was also developed concerning the use of emergency powers under the relevant legislation.

### 5.12.1 Key issues

The key issues that arose from both this and the previous discussion exercise were the need for a more structured format and guidance for decision-making bodies at this level.

<b>Performance indicator 51</b>		
<p>Develop combined mock advice for the Officials Committee for Domestic and External Security Co-ordination commending action relating to the key decision points identified in New Zealand Influenza Pandemic Action Plan concerning public health interventions (such as the closure of schools, the restriction of movement, travel warnings, the restriction of public gatherings, and exit screening at the border). The advice will reflect input from relevant national and/or local agencies and designated officers concerned with that decision, and will review the benefits and risks associated with options for action.</p>		
<b>Scope:</b> National intersectoral	<b>Day:</b> 2	<b>Number of respondents:</b> Discussion exercise facilitator, and participants at debriefs
<b>Results</b>		
<p>Several key agencies attended this discussion exercise, which the Ministry of Health led. The Ministry of Health began with a presentation on the current situation, along with clear recommendations on the decisions to be made.</p> <p>The group was engaged and there was a robust level of discussion that led to the decisions documented in the key decision template for Day 2.</p> <p>The measures recommended were deemed the least intrusive measures that would be required to enable Medical Officers of Health to carry out their role in the community (that is, to minimise the spread of the virus throughout New Zealand or to delay its spread to the greatest extent possible).</p> <p>It was recommended that no action be taken to actively close workplaces at this time, but social distancing be encouraged, in order to keep people working to the greatest extent possible.</p> <p>The discussion exercise proved that officials can agree on key recommendations to notionally place before the Officials Committee for Domestic and External Security Co-ordination and Cabinet in real time at this phase.</p>		
<b>Key issues</b>		
<p>In the normal course of events, officials may have months or weeks during the keep it out phase to consider cluster control interventions. However, New Zealand may need to move immediately to the cluster control phase if the pandemic virus arrives in New Zealand at a very early stage in a pandemic. This exercise tested officials' abilities to agree on the level of intervention in real time.</p> <p>In some circumstances, it may be necessary for some interventions to be applied in a shorter time in order to control a cluster.</p>		
<b>Recommendations</b>		
<p>See performance indicator 29.</p>		

<b>Performance indicator 52</b>		
Develop combined advice concerning the release of emergency powers under relevant legislation, and identify the timeframes for those powers to be released under urgency, if approved.		
<b>Scope:</b> National intersectoral	<b>Day:</b> 2	<b>Number of respondents:</b> DISCEX facilitator
<b>Results</b>		
Combined advice was developed recommending that emergency powers be released under the relevant legislation and providing an indication of the time it would take to release those powers, if approved.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

<b>Performance indicator 53</b>		
Identify priorities and responsibilities for action on outstanding policy and programme issues arising from the discussion.		
<b>Scope:</b> National intersectoral	<b>Day:</b> 2	<b>Number of respondents:</b> DISCEX facilitator
<b>Results</b>		
<p>Participants identified the following issues relating this discussion exercise.</p> <ul style="list-style-type: none"> <li>• A more formal process for decision-making should be explored.</li> <li>• Participants need to be knowledgeable about the issues. Some people attending the exercise were not well briefed, did not know the plan and were not cognisant of the issues and previous policy decisions taken. This led to more lengthy discussions than would otherwise have been the case.</li> <li>• A 'public gathering' needs to be clearly defined; for example, whether it includes religious meetings.</li> <li>• Trigger points for release of powers should be considered. Instead of discussing the release of powers, perhaps trigger points could be identified, so if A happens then B occurs automatically.</li> <li>• Were agencies progressing with their modifications to Orders in Council for the purpose of the Epidemic Preparedness Act 2006?</li> <li>• If the plan has actions specified in it, then the discussion should not be about what to do, but whether there is good reason not to do what is specified.</li> </ul>		
<b>Key issues</b>		
<p>The definition of a 'public gathering' will always be open to interpretation. The degree to which different types of public gathering need to be restricted will depend on the epidemiology of the virus at the time (for example, the age groups most affected). It is important to issue guidance to Medical Officers of Health at the time in order to assist their decision-making and ensure national consistency.</p> <p>It would be beneficial to better define the trigger points for the release of powers and implementation of different types of intervention. However, this will not remove the need to consider the release of powers and implementation of interventions in the context of the epidemiology of the virus at the time. Guidance can only be generic, so will need to be adapted for the circumstances at the time.</p> <p>Confusion was expressed about the policies and procedures governing the officials group compared with those governing the Watch Group and technical advisory groups such the Pandemic Influenza Technical Advisory Group.</p>		
<b>Recommendations</b>		
See performance indicators 29 and 38, including identifying the role of advisory and decision-making groups.		

### **5.13 Objective 13: Community-based assessment centres**

#### **To establish community-based assessment centres and alternative means of providing specific pandemic influenza assessment and treatment services in urban and rural areas.**

Some District Health Boards deployed a static community-based assessment centre and identified staff to maintain a two-shift operation over one week. Some District Health Boards elected to set up an alternative means of providing community assessment services in addition to, or instead of, a static centre.

All District Health Boards that participated in this exercise could demonstrate that the necessary equipment and supplies could be released and securely delivered to the centres within four hours.

District Health Boards have procedures to report on the numbers of patients seen and quantities of medications dispensed. Most of the District Health Boards that set up community-based assessment centres supplied such reports to the National Health Co-ordination Centre within the required timeframe.

Participating District Health Boards have feasible and practical approaches to deal with the fast-track training of inexperienced staff and volunteers.

### **5.13.1 Key issues**

Many District Health Boards could not identify the average throughput of patients through their community-based assessment centre.

Several District Health Boards did not exercise the establishment of community-based assessment centres. Nevertheless, important lessons were learnt in these District Health Boards. These lessons need to be shared through the national Community-Based Assessment Centre Working Group to enable plans and policies to be advanced nationally and locally.

A common theme that emerged during debriefs was the need to finalise and roll out the draft national Community-Based Assessment Centre Guidelines. These guidelines must provide suitable guidance on the setting up of community-based assessment centres including resourcing and the security of equipment and antiviral drugs. Several District Health Boards indicated that they are still in the planning stages of their community-based assessment centres, and that this exercise should be seen as starting point from which they will progress.

**Performance indicator 54**

One static community-based assessment centre is located and set up in each District Health Board districts, with staff identified to maintain a two-shift operation over one week (including health or non-health staff to maintain security and crowd and traffic control).

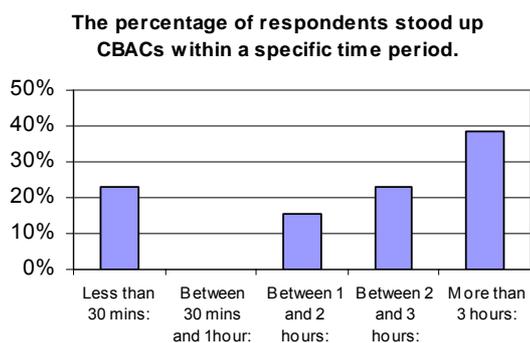
<p><b>Scope:</b> Health sector</p> <p>Note: Feedback was also received from Masterton City Council and Ministry of Civil Defence and Emergency Management, which also tested the setting up of a community-based assessment centre.</p>	<p><b>Day:</b> 3</p>	<p><b>Number of respondents (Health)</b> Day 3 – 13</p> <p><b>(Other)</b> Day 3 – 2</p>
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**Results**

Eighty-one percent of respondents notionally or physically set up a community-based assessment centre.

Sixty-two percent of respondents indicated that community-based assessment centres could be set up within a three-hour period.

The establishment of community-based assessment centres was discussed extensively as part of the regional debriefs and at the national Intersectoral Pandemic Group debrief. Concerns were raised around the ability to obtain sufficient resources for community-based assessment centres.



**Key issues**

Community-based assessment centres were notionally or physically established in 50 percent of District Health Board districts. Experience during the exercise will enable further planning to advance. It is generally agreed that the national Community-Based Assessment Centre Working Group can now advance its work.

**Recommendations**

- It is recommended that:
- the national Community-Based Assessment Centre Working Group reconvenes to review the lessons learnt during the exercise, and develop further guidance for the establishment, resourcing and maintenance of community-based assessment centres
  - District Health Boards that have not practised the establishment of community-based assessment centres plan to do so, based on lessons learnt by other District Health Boards
  - the Community-Based Assessment Centre Working Group identifies the level of resource required (if any) from non-health agencies is determined in consultation with those agencies.

<b>Performance indicator 55</b>		
Set-up, resource and staff one alternative means of providing community assessment services (for example, a mobile service in a remote rural area).		
<b>Scope:</b> Health sector Note: Feedback was also received from the Masterton City Council and Ministry of Civil Defence And Emergency Management, which also tested the setting up of community-based assessment centres	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 7 <b>(Other)</b> Day 3 – 2
<b>Results</b>		
Six of the respondents notionally or physically set up an alternative community assessment centre. Insufficient resources were raised as an issue at regional and national discussions.		
<b>Key issues</b>		
See performance indicator 54.		
<b>Recommendations</b>		
See performance indicator 54.		

<b>Performance indicator 56</b>														
Demonstrate that necessary equipment and supplies (including antiviral drugs, antibiotics and personal protective equipment) could be released and delivered to the community-based assessment centres within four hours, and kept secure in transit and at the site.														
<b>Scope:</b> Health sector	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 13												
<b>Results</b>														
<p>Eighty-eight percent of respondents indicated that the necessary supplies and equipment could be released to community-based assessment centres within the required timeframe. Eighty-six percent of respondents reported that the equipment and materials released reached the designated target safely, and 73 percent reported that equipment was kept secure while in transit. Respondents indicated that combinations of physical and notional actions were taken in relation to this performance indicator. This included the notional release of Tamiflu and, in certain instances, the presence of actual security guards as a security measure.</p>		<p><b>% of respondents that demonstrated that necessary equipment and supplies could be released and delivered to CBACs</b></p> <table border="1"> <caption>Data for % of respondents that demonstrated that necessary equipment and supplies could be released and delivered to CBACs</caption> <thead> <tr> <th>Category</th> <th>Yes (%)</th> <th>No (%)</th> </tr> </thead> <tbody> <tr> <td>Necessary supplies released</td> <td>88</td> <td>12</td> </tr> <tr> <td>Was the target reached?</td> <td>86</td> <td>14</td> </tr> <tr> <td>Was it kept secure in transit</td> <td>73</td> <td>27</td> </tr> </tbody> </table>	Category	Yes (%)	No (%)	Necessary supplies released	88	12	Was the target reached?	86	14	Was it kept secure in transit	73	27
Category	Yes (%)	No (%)												
Necessary supplies released	88	12												
Was the target reached?	86	14												
Was it kept secure in transit	73	27												
<b>Key issues</b>														
See performance indicator 54.														
<b>Recommendations</b>														
See performance indicator 54.														

<b>Performance indicator 57</b>																		
<p>Identify the potential average throughput of patients through the community-based assessment centre, and the components of a fast-track orientation programme to enable new staff to commence duties as quickly as possible. Identify priorities for future action in order to inform the work of the community-based assessment centre workstream convened by the Ministry of Health, incorporating the above issues.</p>																		
<b>Scope:</b> Health sector	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 13																
<b>Results</b>																		
<p>Respondents reported the average throughput (that is, the number of patients) per day was 173 patients. However, this does not differentiate between metropolitan and rural locations, or the population of the area the community-based assessment centre services.</p> <p>A range of responses were received regarding how this number was arrived at, including the use of 1918 statistical data, information supplied by the Ministry of Health, and modelling information. Thirty-two percent of respondents did not believe they were in a position to accurately or effectively define throughput. Reasons included its being too early to define average rates of throughput and the mix of patients and levels of treatment required being unknown.</p>		<p style="text-align: center;"><b>% of respondents average throughput of patients through CBAC per day.</b></p> <table border="1"> <caption>Data for % of respondents average throughput of patients through CBAC per day</caption> <thead> <tr> <th>Throughput Range</th> <th>% of Respondents</th> </tr> </thead> <tbody> <tr> <td>0-50</td> <td>10%</td> </tr> <tr> <td>51-100</td> <td>10%</td> </tr> <tr> <td>101-150</td> <td>30%</td> </tr> <tr> <td>151-200</td> <td>20%</td> </tr> <tr> <td>201-250</td> <td>0%</td> </tr> <tr> <td>251-300</td> <td>10%</td> </tr> <tr> <td>300+</td> <td>20%</td> </tr> </tbody> </table>	Throughput Range	% of Respondents	0-50	10%	51-100	10%	101-150	30%	151-200	20%	201-250	0%	251-300	10%	300+	20%
Throughput Range	% of Respondents																	
0-50	10%																	
51-100	10%																	
101-150	30%																	
151-200	20%																	
201-250	0%																	
251-300	10%																	
300+	20%																	
<b>Key issues</b>																		
<p>Responses reflect the fact that planning for the establishment of community-based assessment centres is still at a formative stage in many District Health Boards. Lessons learnt and solutions identified will enable planning to advance across the country. The community-based assessment centre model is useful not only for the provision of pandemic assessment services during a pandemic, but also potentially for other types of emergency such as a significant outbreak of another infectious disease or during a larger scale mass casualty or chemical incident.</p> <p>This performance indicator asked District Health Boards to identify the components of fast-track orientation programmes to see whether they enabled staff to commence community-based assessment centre duties quickly and effectively. Community-based assessment centre fast-track programmes in existence include orientation manuals and established role and position descriptions. Experiences with such programmes should be shared.</p>																		
<b>Recommendations</b>																		
<p>See performance indicator 54.</p>																		

Performance indicator 58											
Procedures are in place to report to the Ministry of Health on the numbers of patients seen and the quantities of antiviral drugs and antibiotics dispensed each day. Provide such a report by the close of play.											
Scope: Health sector	Day: 3	Number of respondents (Health) Day 3 – 12									
Results											
<p>Seventy-three percent of respondents have procedures to report to the Ministry of Health on community-based assessment centre data. In addition, 77 percent of respondents with procedures provided the National Health Co-ordination Centre with a report at the close of play.</p> <p>During the debriefs, concerns were raised about the flow of information (including reporting) from the community-based assessment centres to District Health Boards and on to the Ministry of Health. The information flow processes proved to be very time consuming and inefficient. It was suggested that providing community-based assessment centres with access to the Ministry of Health systems and data sets (eg WebEOC) would allow for more effective real-time reporting.</p>											
		<p style="text-align: center;"><b>% of respondents who reported on CBAC patients, antivirals etc</b></p> <table border="1"> <caption>Data for % of respondents who reported on CBAC patients, antivirals etc</caption> <thead> <tr> <th>Category</th> <th>Yes (%)</th> <th>No (%)</th> </tr> </thead> <tbody> <tr> <td>Procedures in place to capture data</td> <td>73</td> <td>27</td> </tr> <tr> <td>Reported issued to NHCC</td> <td>77</td> <td>23</td> </tr> </tbody> </table>	Category	Yes (%)	No (%)	Procedures in place to capture data	73	27	Reported issued to NHCC	77	23
Category	Yes (%)	No (%)									
Procedures in place to capture data	73	27									
Reported issued to NHCC	77	23									
Key issues											
Concerns were raised about the inconsistent flow of information through the health sector.											
Recommendations											
It is recommended that the Ministry of Health investigates and develops a reliable and readily accessible system for reporting on the Pandemic Minimum Data Set, and considers the potential of the National Immunisation Register for this task.											

## 5.14 Objective 14: Critical services and supplies

**To identify how critical services in the fast-moving consumer goods, electricity, gas, telecommunications, petroleum, transport, water and waste management, civil defence and emergency management, and other sectors can be monitored and maintained with a projected 50 percent staff absence for two weeks at the peak of the pandemic wave.**

The Ministry of Civil Defence and Emergency Management was the lead agency in this component of the exercise and co-ordinated the response for the Civil Defence and Emergency Management support to pandemic response groups and agencies.

The aim for the Civil Defence and Emergency Management support to a pandemic response component of the exercise was to trial, develop and improve the co-ordinated response to a pandemic influenza event at a national and regional level. It was also to test the Civil Defence and Emergency Management support to a Pandemic Response National Contingency Plan. Agencies operating within the national group set additional objectives for themselves in order to achieve maximum benefit from the exercise.

The participating agencies in the Civil Defence and Emergency Management support to a pandemic response cluster are listed below:

- Ministry of Civil Defence and Emergency Management
- Ministry of Social Development
- Ministry of Economic Development
- Ministry of Transport
- Fast Moving Consumable Goods Group.

Four out of the five listed agencies/groups fully participated in the exercise. The Fast Moving Consumable Goods Group played a small role but could not fully commit because of exercise constraints and other commitments.

Each agency provided liaison personnel to the Civil Defence and Emergency Management support to a pandemic response centre and operated their agency emergency operations centre from their offices. The Fast Moving Consumable Goods Group was unable to fully commit to the exercise however did submit data for the Civil Defence and Emergency Management support to a pandemic centre to analyse and utilise as part of their response plans and reporting information. The Ministry of Economic Development provided an infrastructure cell of three personnel to co-ordinate the large number of infrastructure service providers reporting to them. These liaison personnel enabled the Ministry of Civil Defence and Emergency Management, which was acting as the lead agency, to effectively co-ordinate the Civil Defence and Emergency Management Support to a Pandemic Response group.

Although the Ministry of Civil Defence and Emergency Management was the lead agency for the Civil Defence and Emergency Management support to a pandemic response component of the exercise, it was the first time this agency had exercised in a supporting role to an emergency event. This change in roles provided new challenges for the Ministry of Civil Defence and Emergency Management personnel participating in the exercise. This was also the case at a regional level when a civil defence emergency is generally led by a Civil Defence and Emergency Management Group, however, for the exercise, District Health Boards were the lead co-ordination agency at the regional level. This did create some confusion at the start in relation to information flow and processing for the national situation reports.

An additional objective specific to the infrastructure objective was to test communication arrangements between infrastructure providers and government. The exercise also gave infrastructure providers an opportunity to test their business continuity plans. Infrastructure providers from the gas, coal, petroleum, telecommunications, electricity and transport sectors took part.

The communication arrangements included sector co-ordinating entities as an interface between the relevant infrastructure providers and the infrastructure cell operating in the Civil Defence and Emergency Management Support to a Pandemic Response centre. Those sectors using a co-ordinating entity in the exercise were gas, electricity and transport (the Gas Association of New Zealand, Transpower, and the Transport Response Team respectively). They assist by co-ordinating sector information from the government and infrastructure providers, addressing sector-specific issues where possible, and providing operational advice. The exercise provided an opportunity to test sector co-ordinating entities, and the respective roles and responsibilities. Generally, sector co-ordinating entities worked well.

Infrastructure services were monitored in Exercise Cruickshank using a 'service deliverability' framework (still under development). The purpose of the framework is to collect information that will provide a picture of the current and expected state of infrastructure. For some sectors, trends in supply and demand can be captured.

The service deliverability daily reporting template captured four primary categories of information: demand, supply, assistance and staff pressures. Most of the information was qualitative. The process for collecting service deliverability information is as follows.

- Daily reports were forwarded to the sector co-ordinating entities (where played) that collated the information before sending it to the infrastructure cell.
- The infrastructure cell, for the purpose of the exercise, was infrastructure-specific resources within the Ministry of Civil Defence and Emergency Management's emergency operations centre.
- The infrastructure reports were brought together into an infrastructure situation report, which was then included in the overall Civil Defence support for a pandemic response support centre situation report forwarded to the National Health Co-ordination Centre or National Crisis Management Centre (depending on the phase of the pandemic response).
- The infrastructure situation report was also sent to the infrastructure providers, who acted in response to the information as appropriate.

In an emergency, the role of the Ministry of Economic Development would be to provide assessment and policy advice for the energy and information and communications technology sectors; likewise for the Ministry of Transport with the transport sector. In the exercise, the Ministry of Economic Development chaired the Infrastructure Policy Co-ordination Group, which was actively in contact with the infrastructure cell and provided support where necessary.

The Ministry of Civil Defence and Emergency Management has developed a service deliverability framework. The purpose of this framework was to enable the Civil Defence and Emergency Management support to a pandemic response group to identify options for maintaining critical services at the height of the pandemic wave.

### 5.14.1 Key issues

The exercise identified a number of issues that will need to be addressed by the Civil Defence and Emergency Management support to pandemic response agencies and groups. These areas are:

- management of the Civil Defence and Emergency Management Support Centre systems and processes mainly around sit-reps, how the information is processed, and final report development
- consider systems and processes for interacting with the Ministry of Health WebEOC
- continue working with infrastructure providers to establish sector co-ordinating entities with clearly defined roles and responsibilities
- improve the daily reporting system, and establish a framework for starting up the system in an emergency
- establish and clarify the process by which infrastructure providers request assistance
- clarify and communicate government's position on specific issues (for example, the prioritisation of infrastructure restoration, and supplies).

Performance indicator 59		
Discuss and apply a service deliverability framework supplied by the Ministry of Civil Defence and Emergency Management to identify any break points in service delivery.		
<b>Scope:</b> Ministry of Economic Development, Ministry of Transport, Ministry of Civil Defence and Emergency Management, Ministry of Health	<b>Day:</b> 1, 2, 3	<b>Number of respondents:</b> Ministry of Economic Development and Ministry of Civil Defence and Emergency Management on behalf of participants
Results		
<p>The results below capture issues concerning performance indicators 59 to 61 because they are interrelated.</p> <p>Overall, the infrastructure element of Exercise Cruickshank proved valuable for infrastructure emergency management. It provided an opportunity for infrastructure providers to test their business continuity plans, interact within and across sectors, and exercise communication arrangements and requirements with government. All but one of the infrastructure providers that participated agreed that the exercise was valuable for testing and improving the understanding of communication arrangements.</p> <p>As expected, the exercise also raised issues that will be addressed in the next phase of pandemic planning. Lessons learnt will now be incorporated into the plans of those who participated. In general, the understanding of how and when government can provide assistance has improved.</p> <p>The interface of infrastructure providers with the Ministry of Civil Defence and Emergency Management had not previously been tested. In addition, the exercise provided an opportunity to test sector co-ordinating entities, and the respective roles and responsibilities. Generally, sector co-ordinating entities worked well.</p>		
Key issues		
Overall, the service deliverability framework tested in Exercise Cruickshank worked well. As expected, however, the exercise teased out various improvements that can be made to ensure an effective information management process.		

### Recommendations

It is recommended that the Ministry of Economic Development and Ministry of Civil Defence and Emergency Management in liaison with other key agencies:

- define clearly the purpose of the service deliverability framework
- improve templates to capture the most relevant information as succinctly as possible
- clarify the process for critical infrastructure providers who may request support from central government.

### Performance indicator 60

Identify options to maintain critical services at the height of a pandemic wave.

**Scope:** Ministry of Economic Development, Ministry of Transport, Ministry of Civil Defence and Emergency Management, Ministry of Health

**Day:** 1, 2, 3

**Number of respondents:** Ministry of Economic Development on behalf of participants

### Results

The Ministry of Economic Development, with support from the Ministry of Transport and Ministry of Health, has been working to promote business continuity management in infrastructure and other sectors. Most infrastructure providers have pandemic-specific business continuity plans. While there is no way to ensure the continuation of all services in a pandemic emergency, robust business continuity systems improve the infrastructure providers' ability to maintain critical services.

Exercise Cruickshank gave infrastructure providers an opportunity to test their business continuity plans, which, in many cases, will now be reviewed to incorporate the lessons learnt. In general, the infrastructure providers that participated in the exercise feel more comfortable with their ability to maintain critical services in a pandemic emergency.

### Key issues

The exercise highlighted issues that are of concern for infrastructure providers in pandemic response. These include the prioritisation of supply to customers, prioritisation of access to fuel, security of sites and prioritisation of access to Tamiflu and personal protective equipment.

Most of these issues are not new, but need to be addressed further by government and infrastructure providers to ensure planning is as robust as possible.

The issues identified relate to key sectors' need for assurance about the continuation of core infrastructure, particularly the supply of engine fuels.

### Recommendations

It is recommended that the Ministry of Economic Development and Ministry of Civil Defence and Emergency Management, in liaison with other key agencies:

- continue to work with infrastructure providers to establish sector co-ordinating entities with clearly defined roles and responsibilities
- improve the daily reporting system and establish a framework for starting up the system in an emergency
- establish and clarify the process by which infrastructure providers request assistance
- clarify and communicate government's position on specific issues to critical infrastructure providers (for example, the prioritisation of infrastructure restoration and supplies).

<b>Performance indicator 61</b>		
Discuss and identify improvements that can be made to the service deliverability framework.		
<b>Scope:</b> Ministry of Economic Development, Ministry of Transport, Ministry of Civil Defence and Emergency Management, Ministry of Health	<b>Day:</b> 1, 2, 3	<b>Number of respondents:</b> Ministry of Civil Defence and Emergency Management on behalf of participants
<b>Results/recommendations</b>		
The Ministry of Civil Defence and Emergency Management has, as a result of this exercise, identified improvements that can be made to the service deliverability framework and is developing a work programme to address these improvements.		

<b>Performance indicator 62</b>		
Develop national advice concerning trigger points for the declaration of a state of national emergency under the Civil Defence Emergency Management Act 2002.		
<b>Scope:</b> Ministry of Civil Defence and Emergency Management	<b>Day:</b> 3	<b>Number of respondents:</b> Ministry of Civil Defence and Emergency Management on behalf of attendees
<b>Results</b>		
This was not formally exercised.		
<b>Key issues</b>		
No issues related to this performance indicator.		
<b>Recommendations</b>		
None.		

## 5.15 Objective 15: Home support

**To identify and document in each District Health Board catchment, the responsibilities for and means of supporting sick people and their dependants who are unable to leave home.**

### 5.15.1 Key issues

Assumptions have been made about who will be responsible for providing home support services during a pandemic event. The health sector will be severely constrained and it is unlikely that it will be able to meet the food and critical supply needs of those who cannot leave home because they are sick and do not have family or friends locally who can provide for them.

At this time, it has been assumed that volunteer networks will play a large part in addressing this need. However, volunteer networks have not been clearly identified or co-ordinated to ensure that they are prepared to meet the needs in this area if required.

The delivery of home support services in general is at risk. Realistic and sustainable plans need to be developed to ensure the needs of people who are forced to stay at home because they are sick or to take care of ill people are met. A co-ordinated plan should identify responsibilities at national and district levels.

**Performance indicator 63**

Identify responsibilities and methods for delivering food and other critical supplies.

**Scope:** Health sector

**Day:** 3

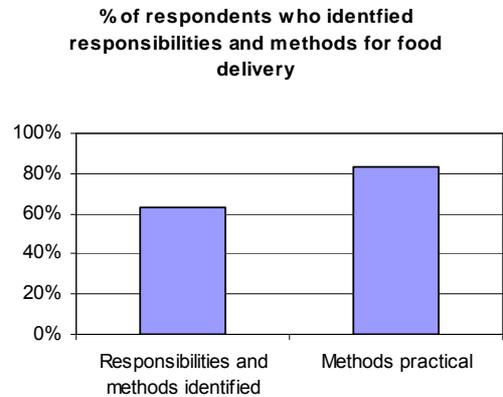
**Number of respondents (Health)**

Day 3 – 19

**Results**

Sixty-three percent of respondents identified food delivery methods and responsibilities, of which 83 percent were deemed practicable.

Not all health sector entities were clear about their particular responsibilities for delivering food. Further evidence acquired through debriefs identified that the roles and responsibilities in relation to home-support related activities, such as food delivery, are unclear. Both health and non-health sector agencies assume that this activity will be delivered, but it is not yet clear in some areas which agency will be responsible for and co-ordinate this vital activity.



**Key issues**

About 50 percent of District Health Boards working with local agencies identified responsibilities and methods for delivering food and other critical supplies. Other District Health Boards need to consider this issue with other agencies in their area, building on the solutions identified by District Health Boards that have considered this issue.

Solutions will vary from area to area, taking into account the nature of different communities in terms of population mix, geography, local networks and resources. Therefore, solutions must be determined locally. However, greater clarity on the role of different agencies at a national level, and the sharing of the solutions identified in many areas to date, will enable districts to advance their plans.

The Ministry of Civil Defence and Emergency Management and civil defence groups play a significant role in programmes oriented towards community resilience, and therefore any pandemic-related work must complement and build on this work.

**Recommendations**

It is recommended that:

- the Ministry of Health convenes a working group (with representation from relevant ministries, the National Welfare Recovery Co-ordinating Group, the Ministry of Civil Defence and Emergency Management and District Health Boards) to develop guidance for local agencies on programmes for the provision of critical supplies, welfare and health support to sick people who cannot leave home
- the working group will need to focus on the concept of community resilience and the resources that can be applied to support that. This includes a range of proactive and reactive responses such as the prior promotion of community tool kits, and identification of the role of different agencies (including the voluntary sector)
- District Health Boards that have not yet considered this issue should exercise the provision of home support services in liaison with civil defence groups and other agencies.

Performance indicator 64								
Identify responsibilities and methods for meeting welfare needs.								
<b>Scope:</b> Health sector	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 19						
Results								
<p>Fifty-eight percent of health sector agencies evaluated identified responsibilities and methods for meeting welfare needs, of which 92 percent were deemed practical.</p> <p>However, 57 percent of the respondents also commented that the identification of welfare responsibilities and methods was not applicable to their specific location despite the fact some had identified responsibilities and methods in relation to this.</p> <p>Regardless, it was positive to note that several District Health Boards had put a lot of time and effort into testing the assumed links between welfare and food needs.</p>		<p style="text-align: center;"><b>% of respondents who identified responsibilities welfare needs for people unable to leave home</b></p> <table border="1"> <caption>Data for Bar Chart</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Welfare responsibilities and methods identified</td> <td>58%</td> </tr> <tr> <td>Methods are practical and methods identified</td> <td>92%</td> </tr> </tbody> </table>	Category	Percentage	Welfare responsibilities and methods identified	58%	Methods are practical and methods identified	92%
Category	Percentage							
Welfare responsibilities and methods identified	58%							
Methods are practical and methods identified	92%							
Key issues								
<p>Welfare advisory groups play a significant role in civil defence responses to emergencies, so have a clearly defined role in local emergency responses. Likewise, the National Welfare Recovery Co-ordinating Group plays a significant role in bringing together national aspects of an emergency welfare response.</p> <p>There is wide use of the word 'welfare', with different interpretations being applied by different organisations.</p>								
Recommendations								
See performance indicator 63.								

<b>Performance indicator 65</b>								
Identify responsibilities and methods for meeting health needs.								
<b>Scope:</b> Health sector	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 20						
<b>Results</b>								
<p>Sixty percent of health sector agencies evaluated identified responsibilities and methods for meeting the health needs for sick people and their dependants who are unable to leave home, of which 92 percent were deemed practical.</p>		<p><b>% of respondents who identified responsibilities for meeting health needs for people unable to leave their home.</b></p> <table border="1"> <caption>Data for Bar Chart</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Health responsibilities and methods identified</td> <td>60%</td> </tr> <tr> <td>Methods are practical and methods identified</td> <td>92%</td> </tr> </tbody> </table>	Category	Percentage	Health responsibilities and methods identified	60%	Methods are practical and methods identified	92%
Category	Percentage							
Health responsibilities and methods identified	60%							
Methods are practical and methods identified	92%							
<b>Key issues</b>								
<p>Not all District Health Boards recognise the requirement to provide for the health needs for sick people who cannot leave home in their area.</p> <p>It will be impossible to provide normal levels of care for sick people at the height of a pandemic, whether this sickness is due to pandemic influenza or other causes. However, District Health Boards should focus on providing some level of health status monitoring and support for those who can most benefit from such support.</p> <p>It would be helpful to develop national guidelines on this issue in order to inform local action by District Health Boards and promote national consistency in the approach to this issue.</p> <p>This issue will continue to be of importance during the early stages of recovery from a pandemic.</p>								
<b>Recommendations</b>								
<p>It is recommended that the Ministry of Health considers convening a District Health Board working party to pull together the lessons learnt to date, and develop national guidelines to further inform District Health Board planning for providing basic health care at home (acknowledging that people may need to care for themselves in more extreme situations).</p>								

<b>Performance indicator 66</b>										
Identify responsibilities, methods and content for the fast-track orientation (and incorporating health and safety issues) of staff and volunteers who may visit homes to provide the services discussed above. Orientation should enable staff and volunteers to commence duties within four hours.										
<b>Scope:</b> Health sector	<b>Day:</b> 3	<b>Number of respondents (Health)</b> Day 3 – 16								
<b>Results</b>										
<p>Sixty-three percent of respondents were able to fast track the orientation of staff and volunteers so they could visit homes. Of those respondents that did fast track the orientation of staff and volunteers, 90 percent did so within four hours.</p> <p>Comments were made about the need for ongoing support for staff and volunteers after the fast-tracking programme.</p> <p>Some respondents deemed the need to identify responsibilities for, and the method of, fast tracking staff and volunteers to not be applicable to their specific location. This claim may require investigation to determine why the respondents believe this is not applicable to their location, and to determine if this is in fact the case.</p>		<p><b>% of respondents who identified responsibilities for fast tracking staff/volunteers to visit homes (within 4 hours).</b></p> <table border="1"> <caption>Data for Bar Chart: % of respondents who identified responsibilities for fast tracking staff/volunteers to visit homes (within 4 hours).</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Responsibilities fast tracked</td> <td>63%</td> </tr> <tr> <td>Methods are practical</td> <td>90%</td> </tr> <tr> <td>Commence duties in four hour</td> <td>90%</td> </tr> </tbody> </table>	Category	Percentage	Responsibilities fast tracked	63%	Methods are practical	90%	Commence duties in four hour	90%
Category	Percentage									
Responsibilities fast tracked	63%									
Methods are practical	90%									
Commence duties in four hour	90%									
<b>Key issues</b>										
<p>Where respondents indicated that they would not be able to fast track volunteers to visit homes, the issue relates back to the uncertainty around the numbers of volunteers that would be available.</p> <p>This issue should be considered alongside performance indicator 65.</p>										
<b>Recommendations</b>										
See performance indicator 65.										

### 5.16 Objective 16: Recovery roles

To identify and document potential recovery roles and functions for key sectors, and their interdependencies.

<b>Performance indicator 67</b>
Potential recovery roles and functions for the key sectors, and their interdependencies, are identified and documented.
<b>Results</b>
During the regional and national recovery workshops, the potential roles and functions for the key sectors were discussed. It was concluded that more work needs to be done. The workshops provided very valuable information for this work.
<b>Key issues</b>
The roles, responsibilities and functions of a pandemic recovery effort have not yet been examined in great detail. Pandemic planning should build on existing recovery plans for other forms of emergencies.
<b>Recommendations</b>
It is recommended that a whole-of-government approach is developed to advance pandemic recovery planning. Recommendations in section 5.18 and the notes from the local and national workshops must inform this work.

### 5.17 Objective 17: Critical action plans

To identify and document critical actions for central and local government in the initial months of recovery (noting that recovery starts in parallel with the response to the pandemic).

<b>Performance indicator 68</b>
Critical actions for central and local government in the initial months of recovery are identified and documented.
<b>Response</b>
The critical actions for local and central government during a recovery phase require more discussion to determine what is needed, what the priorities are, and whether local or central government will be responsible. The workshops provided very valuable information for this work.
<b>Key issues</b>
Pandemic recovery plans are still in a very early stage.
<b>Recommendations</b>
It is recommended that a whole-of-government approach is developed to advance pandemic recovery planning. Recommendations in section 5.18 and the notes from the local and national workshops must inform this work.

## 5.18 Recovery workshops

The findings relating to pandemic recovery have been derived directly from workshops held with exercise participants, both regionally and nationally. A series of specific questions were put to participants, and groups reported back on these questions.

The following sections describe the common themes that were presented.

### 5.18.1 Leadership

Recovery leadership cannot be seen as the responsibility of a single agency. It sits across numerous agencies, and is a significant national strategic issue requiring careful consideration. How the co-ordination of the recovery phase of a pandemic event is lead still needs to be determined.

The consensus from workshop attendees was that a multi-agency approach would be required at national and regional levels, and that collectively these agencies would be responsible for prioritising recovery activities as well as co-ordinating local (regional and district) groups. Strong leadership and clear accountabilities are required, and the development of appropriate relationships is critical.

<b>Future considerations and recommendations</b>
<p>It is recommended that, at the planning phase:</p> <ul style="list-style-type: none"><li>• the Ministry of Health, the Ministry of Civil Defence and Emergency Management, and other interested agencies meet to discuss a joint across-agency approach to pandemic recovery planning</li><li>• plans be built on existing recovery plans and networks at a national and regional level</li><li>• recovery be built into intersectoral and sector-specific exercise programme plans at national and regional levels.</li></ul> <p>It is recommended that, at the response phase, government agencies:</p> <ul style="list-style-type: none"><li>• establish a National Recovery Office led by a Minister with a specific responsibility for recovery in order to lead and co-ordinate recovery across agencies at a national level, and to establish a consistency of response across regions. This office will:<ul style="list-style-type: none"><li>– formalise communication structures and processes within and across agencies</li><li>– ensure authority lines are formally defined and agreed by all agencies involved at national and regional levels</li><li>– lead the development and dissemination of public information at a national level to manage expectations</li></ul></li><li>• prioritise the use of scarce resources at a national level in order to inform regional action, while retaining national consistency.</li></ul>

**5.18.2 Legislation**

Workshop groups focused on the trigger points for pandemic control, regulation and legislation relaxation.

Decisions to switch off special powers and regulations need to be carefully considered. The recovery period is likely to be prolonged over months for some aspects, and over years for others. Shortages of supplies and other resources within New Zealand and internationally are likely. This means rationing may need to continue into the recovery period. Employees in some sectors may need to continue to work outside their normal scope of activities. Additional relief may need to be maintained for businesses at high risk. All these activities require the retention of special emergency powers and the relaxation of the normal regulations that apply, particularly in the initial stages of the recovery response.

It is also possible that further pandemic waves will occur. International experience demonstrates that a premature relaxation of controls can lead to a resurgence of the pandemic. Sufficient controls may, therefore, need to be retained until the most of the population has an appropriate level of immunity through vaccination.

<b>Future considerations and recommendations</b>
<p>It is recommended, in a response, that:</p> <ul style="list-style-type: none"> <li>• emergency powers are maintained if such powers will assist in significantly reducing the duration of the recovery period and protecting public health</li> <li>• the retention and relaxation of powers is reviewed regularly, and, if the special powers are no longer assisting recovery or protecting public health, they are withdrawn</li> <li>• triggers for the lifting of powers are ‘event’ driven rather than ‘time’ driven</li> <li>• mechanisms are developed to help manage opportunity profiteering as a result of a pandemic event.</li> </ul>

**5.18.3 Prioritisation**

The prioritisation of recovery activities in order to bring some level of normality back to society is a key issue. Workshop groups identified the following priority areas.

- The need to reinstate the services relating to the basic necessities of life (ie, food and clean water) as soon as practical. The concept of community self-reliance will need to be promoted during this phase of the pandemic.
- A secondary focus on reinstating law and order, banking services (over the counter and EFTPOS (electronic funds transfer at point of sale)) and financial assistance services (welfare support).

Further issues relating to the support from the private sector were also discussed. Some private sector issues will require national leadership and co-ordination.

<b>Future considerations and recommendations</b>
<p>Develop national intersectoral and sector-specific policies for prioritising resources. These will need to identify guiding principles and primary and secondary areas of focus.</p>

#### 5.18.4 Community networks

There are more differences than similarities in the ability of specific communities to respond and recover during a large-scale emergency event such as a pandemic. Communities differ geographically, have different levels of public and private sector representation, and may have specific factors (for example, the mix of ethnicity or socioeconomic factors) that determine the nature and efficacy of the recovery response.

Common themes identified through workshop discussions are noted below.

- The differences between community networks in metropolitan, urban and rural settings must be considered.
- Existing community networks in each unique area should be identified and utilised.
- Where possible, any existing recovery plans should be retained and enhanced to encompass a pandemic event, in addition to other hazard-triggered events.
- Given the global scale, the repeated nature of pandemic waves, and the unique characteristics of a pandemic event (slow onset and long lead time), community-wide psychological impacts will need to be considered and managed through specific networks at national, regional and local levels for extended periods.
- Traditional business continuity management strategies will not be sufficient in most cases. Existing relationships need to be built on where possible, encompassing wider community resources and capabilities.
- Each community network must be clear about who is responsible for the planning and response to emergency events, including pandemic events.

Future considerations and recommendations
<p>It is recommended that:</p> <ul style="list-style-type: none"><li>• the Ministry of Health and the National Welfare Recovery Co-ordinating Group identify networks to assist with managing the psychological impacts of a pandemic at a community-wide level, building on existing networks and relationships</li><li>• businesses modify their existing business continuity plans to take into account the impact of a pandemic emergency on their business.</li></ul>

#### 5.18.5 Planning

The planning for the recovery after a pandemic event is critical to ensure the efficient and effective recovery of the local and wider national community.

Common themes identified during the workshop are noted below.

- Pandemic recovery planning is a priority and is a whole-of-government issue rather than the responsibility of one agency. Synergy with recovery planning for other types of hazards is essential. A co-ordinated approach at both regional and national levels is essential.

- In a pandemic, the focus will be on social and economic recovery, rather than the impacts on natural and built environments. Therefore, key agencies concerned with social issues, health, the economy and business should take part in recovery planning.
- The Ministry of Civil Defence and Emergency Management and civil defence groups have developed recovery plans for other types of hazard that can inform the development of pandemic recovery plans. The development of all hazard recovery plans, incorporating any pandemic-specific components, should be encouraged.
- Many recovery plans exist globally and should be used as guides for New Zealand's pandemic recovery planning. In addition, data on past pandemic events is valuable and must be considered as part of any recovery planning strategy. However, consideration must be given to the different characteristics of a pandemic compared with other types of emergency. For example, onset may be slower, but the pandemic will expand across many months, and come in waves, thus affecting society for a longer period.
- Planning for the transition from the 'management' phase to the 'recovery' phase during a pandemic event ideally needs to be defined more clearly in the New Zealand Influenza Pandemic Action Plan, but be flexible enough to be adapted for different circumstances. Note, however, that a combination of factors needs to be considered for moving from the 'management' phase to the recovery phase, making precise definition difficult. Recovery is an ongoing process that starts at the response phases.

#### Future considerations and recommendations

It is recommended that:

- the Ministry of Health consider the practicality of defining the transition from the pandemic management phase to the recovery phase
- the Ministry of Health, the Ministry of Civil Defence and Emergency Management, and other interested agencies meet to discuss a joint across-agency approach to pandemic recovery planning.

#### 5.18.6 Social factors

Numerous social issues will arise during the pandemic recovery phase. Staffing capacity for the delivery of all government services, and psychological support for vulnerable communities require consideration.

Key themes identified by the workshop groups are detailed below.

- The need for community support (for example, the provision of scarce supplies or financial assistance for people out of work or caring for dependents) will carry across from the response phase and must be formally co-ordinated and managed.
- Public expectations will need to be managed at national and local levels, given the long period before things return to normal. This must be led at a national level and must be enhanced and supported at a regional level.
- Special help centres or call lines will need to be maintained to give advice and direction to individuals and businesses.

- The decision as to when to reopen educational institutions will be a significant social consideration that will stimulate associated actions. The consensus of the workshop groups was that early childhood centres and primary schools should open first, as this will free up parents to resume paid work, helping communities to move toward a state of normality. Times may vary across the country, reflecting local circumstances.
- If a vaccine exists, it will be pertinent for teachers and students returning to school to be vaccinated. This will reduce the potential for re-infection during future pandemic waves. However, priorities for vaccination will need to be determined by the epidemiology of the pandemic virus at the time: children may not be the key group affected or associated with transmission.
- The impact of senior students providing temporary cover to fill skill and resource gaps in the workforce during the recovery phase would require careful consideration. Students may choose to stay in the work force and take the place of previous employees who are unable to return to work. This will have positive and negative flow-on effects for the education sector and the workforce, potentially altering the age and skill base of regional and national workforces.
- Psychological impacts on society and communities are expected to be extensive. However, effective public information strategies to develop a high level of community awareness will minimise the extent of any long-term negative impacts. Only a minority of affected people will require special care from health professionals.
- Burnout as a result of people working extensive hours will also be a risk. The effect that prolonged periods of stress can have on an individual, and their families as well as the wider community, must be considered and appropriately managed.
- The co-ordination of community volunteer networks will require ongoing planning.
- Government agencies will not be able to deliver their usual services for an extended period. There will be an ongoing need for the clear prioritisation of services and public expectations will need to be carefully managed.

<b>Future considerations and recommendations</b>
<p>In the recovery phase:</p> <ul style="list-style-type: none"> <li>• maintain support mechanisms developed in the response phase in order to provide relevant social and economic support to affected individuals, vulnerable communities and businesses, and to phase out support over a period</li> <li>• develop national policy for reopening education facilities</li> <li>• balance the benefits of parents returning to the workforce against the costs that may result from lifting controls too soon, thus precipitating further outbreaks</li> <li>• develop information packs for stakeholders and communities to help them deal with psychological problems</li> <li>• develop guidance for general practitioners and other health professionals who may need to offer psychological support and care</li> <li>• maintain staff and volunteer rosters to avoid the risk of burnout</li> <li>• provide labour market guidelines to facilitate an orderly, prioritised recovery.</li> </ul>

**5.18.7 National health sector factors**

National health sector issues specific to pandemic recovery were also discussed during the workshop. Common themes identified by the workshop groups are as follows.

- Staffing capability and capacity: the processes and practices adopted during strike action may also apply during a pandemic event. Workshop groups identified a need for retired health sector representatives to be encouraged back into the workforce in order to bolster health sector resources. Selection would be based on skill requirements and availability across the country.
- Health sector staff will need to continue to be redeployed to maintain critical services. This requires the ongoing relaxation of certain occupational regulations.
- Recovery starts locally and District Health Boards already have service prioritisation plans for emergencies that can be enhanced and adopted for national usage. Priority service frameworks (for example, national minimum service levels) will need to be identified at a national level to help ensure consistency across District Health Boards. Such decisions will undoubtedly be difficult to make. Professional bodies, unions and ethics committees should be part of this process. Decisions will need to be made promptly, in the interests of community wellbeing.
- Most health supplies, including pharmaceuticals and vaccines, rely on international supply chains. Ongoing prioritisation and rationing will be necessary. Prioritisation policies will need to be developed at a national level to help ensure consistency across District Health Board districts.
- Where possible, local manufacturing capacity should be supported to minimise shortfalls.
- The supply of staff and supplies should be tracked nationally and by district to adjust priorities to needs during the recovery period.
- Health staff, in common with employees in other sectors, will need time to recover.
- Public expectations must be managed.

<b>Future considerations and recommendations</b>
Health recovery plans need to address issues concerning shortage of staffing and supplies. In the recovery phase the Ministry of Health will need to continue to prioritise the provision of health services and supplies (including pharmaceuticals) to ensure consistency of service provision across the country. The Ministry of Health in liaison with the Industry Capability Network should consider the development of a list of potential local manufacturers of critical supplies.

## **5.19 Other considerations relating to a pandemic event**

This section highlights issues that do not align with the individual performance indicators, but were identified through the evaluation process as needing further consideration.

### **5.19.1 WebEOC**

Participants largely saw the piloting of the web-based emergency management software (WebEOC) as a positive move forward. Issues raised included:

- WebEOC needs to be further developed and refined on the basis of the lessons learnt during the exercise
- the integration of WebEOC with other systems needs to be considered to avoid duplication and improve efficiency
- all relevant agencies such as Public Health Services need access to WebEOC
- an ongoing training programme is required
- a backup is needed if WebEOC (or other information technology systems) go down.

### **5.19.2 Code activation**

The New Zealand Influenza Pandemic Action Plan codes caused confusion during the exercise, in particular their links to the regional co-ordination structure. Exercise participants observed that it was unclear what role the regional co-ordinator played in code activation and whose responsibility it was to stand up the regional structure. Some regional co-ordination structures were stood up before Code Red activation, and some regions activated Code Red at their regional level before Code Red was activated nationally, causing confusion at both national and regional levels.

The actions of non-health sector agencies during code activations were also confused. There were instances where the New Zealand Influenza Pandemic Action codes did not align with the action for other agencies. For example, Code Yellow is a stand-by code in the health sector, but means full deployment for border agencies. Some agencies have resolved this problem by developing specific actions for their agency that align with the New Zealand Influenza Pandemic Action Plan's phases and codes.

The issue of codes requires further consideration. However feedback from participants generally supports the retention of codes in order to help inform action in different sectors.

### **5.19.3 Regional co-ordination**

Most respondents believed the regional co-ordination structure was worth retaining to focus on strategic issues. A common suggestion across the regions for improving the regional co-ordinators' effectiveness was to ensure the regional co-ordinators were part of the National Health Co-ordination Centre team in order to assist with logistical issues. This would also assist with ensuring the consistency of the co-ordination messages and key decisions.

However, some participants questioned the need for a regional co-ordination structure. They raised issues such as:

- the significant time delays between the making of and disseminating of national decisions
- inefficient reporting, with the regional structure often becoming a bottleneck for information flowing up from and down to District Health Boards and Public Health Units
- the variability of the application of the regional structure throughout the country
- WebEOC making the regional structure redundant.

#### **5.19.4 Medical supplies and distribution**

The vaccine for an influenza pandemic is unlikely to arrive for 6–9 months after a pandemic outbreak is announced by the World Health Organization. At this time it is important that a clear mass vaccination plan is in place to ensure the vaccine is distributed effectively when it does arrive.

Non-pandemic-related medications and other medical supplies may also be in short supply due to a disruption in international supply chains. It is necessary to consider options for bridging supply shortages should these occur. Options should include developing national prioritisation criteria, using local manufacturers, and having memoranda of understanding with suppliers and distributors.

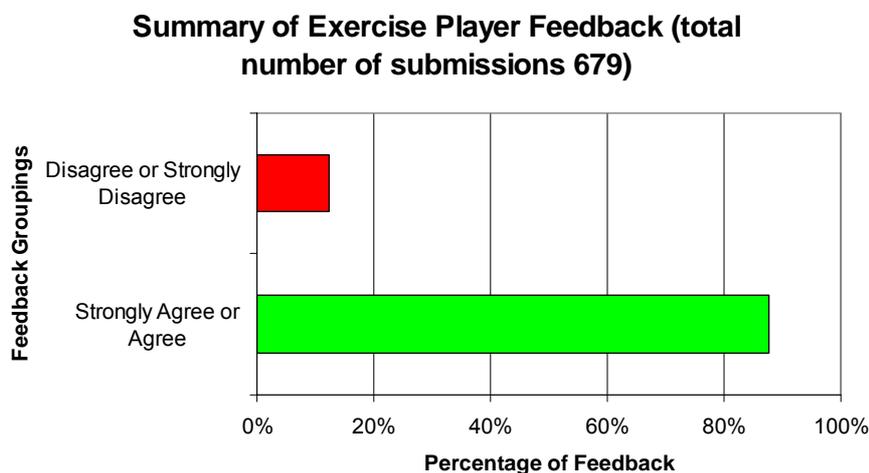
## 6 Summary of Player Feedback on Exercise Play

All exercise players were given the opportunity to provide feedback on Exercise Cruickshank. Feedback focused on the development, design and delivery aspects of the exercise as well as overall preparedness. The following key questions were put to players.

- Was the scenario realistic?
- Did you have adequate training and preparation to fulfil your role in the exercise?
- Did your team cope well with the problems that they were presented with?
- Are you now more comfortable with your role in pandemic management?
- Do you better understand the arrangements for pandemic management?
- Do you better understand the role of other agencies in pandemic management?
- Was your time used well?
- Were the facilitators knowledgeable about the material and did they keep the exercise on target?
- Was the Exercise General Instructions: Common Elements document a valuable tool?

Over Days 1–3 of Exercise Cruickshank, 679 individual player evaluation forms were received. This was a tremendous response, and is indicative of the high level of engagement and interest from participants involved in the exercise.

Overall, the feedback had a positive tone. The graph below is a consolidated summary of the feedback ratings for all the questions, and reiterates the positive perception that players had in relation to the exercise.



The following sections summarise the findings and ratings from player feedback forms received for each individual exercise day. These come from both health and non-health sector organisations. The tables in the subsequent sections of this report below summarise the ratings by day, including a summary of the key themes evident on each day.

## 6.1 Day 1 – keep it out

Response statistics		143 individual evaluation forms received					
#	Question summary	Ratings summary					
		Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Not answered
1	The scenario was realistic	24	89	12	4	11	3
2	I had adequate training and preparation to fulfil my role in the exercise	20	89	27	5	0	2
3	My team coped well with the problems that we were presented with	51	81	5	0	4	2
4	I am now more comfortable with my role in pandemic management	31	99	6	2	3	2
5	I now better understand the arrangements for pandemic management	27	107	5	0	3	1
6	I now better understand the role of other agencies/ organisations in pandemic management	14	90	24	2	11	2
7	Time was used well	16	71	39	8	8	1
8	The facilitators were knowledgeable about the material and kept the exercise on target	49	65	6	1	19	3
9	The exercise general instructions: common elements document was a valuable tool	13	68	19	1	35	7
	<b>Total</b>	<b>245</b> <b>19%</b>	<b>759</b> <b>59%</b>	<b>143</b> <b>11%</b>	<b>23</b> <b>2%</b>	<b>94</b> <b>7%</b>	<b>23</b> <b>2%</b>

## **6.2 Day 1 comments and considerations**

Common themes in response to additional questions asked included the following.

### **6.2.1 How well did existing plans, procedures and documentation cover the parts of the exercise that you were involved in?**

The feedback provided in response to this question was generally positive. The following points note the key themes raised in response to this question.

- More extensive training must be considered before any future large-scale exercises. Training needs to focus on both exercise play and control aspects.
- Better access is needed to emergency response plans. The relevancy of specific plans and the robustness or adequacy of plans were questioned.
- People need to be conversant with the contents and structures of the New Zealand Influenza Pandemic Action Plan, so they can put the plan into operation.
- Communication and reporting up, down and across agencies need to be strengthened.

### **6.2.2 How well did your prior training in pandemic management address the role(s) that you were asked to undertake?**

A wide array of feedback was received in response to this question, for example:

- 'Prior training day had me prepared to address role and issues.'
- 'I found preparation much better than Exercise Makgill.'
- 'Not at all. By Day 1 I still had no idea (and still don't, apart from what is in the job description) what I would be expected to do, although I had a good understanding of the overall management of the exercise.'

### **6.2.3 How well prepared do you think you and your organisation were for this simulated exercise?**

A similar range of responses was received as for the question above:

- Very well prepared.
- Hard work in preparation allowed for a good result.
- Could be better.
- Poorly, well prepared but poor educational management.

Before the exercise, the Ministry of Health provided regional and national training for staff in relation to the co-ordinated incident management system and the roles and responsibilities in the emergency operation centres. It was expected that other agencies including local health agencies would provide an appropriate level of training to their emergency operation centre staff.

### 6.3 Day 2 – stamp it out

Response statistics		228 individual evaluation forms received					
#	Question summary	Ratings summary					
		Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Not answered
1	The scenario was realistic	46	158	9	0	11	4
2	I had adequate training and preparation to fulfil my role in the exercise	39	147	38	0	2	2
3	My team coped well with the problems that we were presented with	90	133	3	0	2	0
4	I am now more comfortable with my role in pandemic management	59	158	5	0	3	3
5	I now better understand the arrangements for pandemic management	53	164	6	0	3	2
6	I now better understand the role of other agencies/organisations in pandemic management	28	158	23	1	15	3
7	Time was used well	34	144	35	1	13	1
8	The facilitators were knowledgeable about the material and kept the exercise on target	69	131	2	0	24	2
9	The exercise general instructions: common elements document was a valuable tool	32	125	16	1	46	8
	<b>Total</b>	<b>450</b> <b>22%</b>	<b>1318</b> <b>64%</b>	<b>137</b> <b>7%</b>	<b>3</b> <b>0%</b>	<b>119</b> <b>6%</b>	<b>25</b> <b>1%</b>

## **6.4 Day 2 comments and considerations**

Common themes in response to additional questions asked included the following.

### **6.4.1 How well did existing plans, procedures and documentation cover the parts of the exercise that you were involved in?**

Common themes included:

- greater clarity was needed about information flows, information expectations, bottlenecks and protocols
- information and reporting templates need to be reviewed, and training needs to be provided to ensure staff understand how to use the templates appropriately and effectively.

### **6.4.2 How well did your prior training in pandemic management address the role(s) that you were asked to undertake?**

A limited number of comments were received in response to this question for Day 2. Common themes relate to the application and applicability of the co-ordinated incident management system and associated training programmes. The lack of exposure to, and awareness that individuals have of, the co-ordinated incident management system, means training is vital to ensure the successful response to any emergency situation. This training and awareness is the responsibility of each individual agency.

### **6.4.3 How well prepared do you think you and your organisation were for this simulated exercise?**

A limited number of comments were received here in response to this question for Day 2. Common themes included a need to improve staff awareness and provide greater clarity about communications.

## 6.5 Day 3 – manage it

Response statistics		308 individual evaluation forms received					
#	Question summary	Ratings summary					
		Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Not answered
1	The scenario was realistic	40	189	50	17	5	7
2	I had adequate training and preparation to fulfil my role in the exercise	35	191	67	8	4	3
3	My team coped well with the problems that we were presented with	78	215	9	0	4	2
4	I am now more comfortable with my role in pandemic management	60	218	18	4	5	3
5	I now better understand the arrangements for pandemic management	67	217	21	2	1	0
6	I now better understand the role of other agencies in pandemic management	36	192	64	3	11	2
7	Time was used well	35	176	72	13	7	5
8	The facilitators were knowledgeable about the material and kept the exercise on target	80	194	13	5	12	4
9	The exercise general instructions: common elements document was a valuable tool	23	164	27	4	69	21
	<b>Total</b>	<b>454</b> <b>16%</b>	<b>1756</b> <b>63%</b>	<b>341</b> <b>12%</b>	<b>56</b> <b>2%</b>	<b>118</b> <b>4%</b>	<b>47</b> <b>2%</b>

## **6.6 Day 3 comments and considerations**

Common themes in response to additional questions asked included the following.

### **6.6.1 How well did existing plans, procedures and documentation cover the parts of the exercise that you were involved in?**

- Documentation was incomplete and caused confusion about plans, policies and statutory powers. This led to confusion over interagency or interorganisation roles, responsibilities, authorities, expectations and accountabilities.
- Awareness about other agencies and their plans and policies was limited, which led to confusion during the exercise.
- The timeframes imposed were unrealistic and people would be unable to meet them during a real event.
- There was a lack of awareness about and an absence of communications and information from some agencies.

### **6.6.2 How well did your prior training in pandemic management address the role(s) that you were asked to undertake?**

Common themes related to a lack of emergency operations centre training, more training needed in system data entry (for EpiSURV) and more training needed on individual emergency operations centre roles, expectations and obligations.

### **6.6.3 How well prepared do you think you and your organisation were for this simulated exercise?**

The consensus was similar to that in Days 1 and 2.

## **7 Analysis: Exercise Control**

### **7.1 Summary of evaluator feedback**

The sections below summarise the feedback received from the evaluators present at national Exercise Control during the individual exercise days.

The following are quotations from the feedback received from the national Exercise Control evaluators.

#### **7.1.1 Evaluator 1**

I thought [Exercise Control] was professionally run with sufficient space and resources to allow staff to manage the exercise as it unfolded. It was relatively quiet and well organised, allowing everyone to easily get on with their specific roles and responsibilities. Setting up an Exercise Control is never an exact science and having just returned from observing a major Australian Government exercise for APEC, I can confidently say that the set-up and layout was world class.

All Exercise Control staff knew their individual roles and responsibilities, and were able to quickly deal with any last-minute issues or problems. These sudden demands on Exercise Control staff are entirely normal and were handled well. [Exercise] Makgill was fraught with problems and I was very blunt in my evaluation comments for the Exercise Control, Exercise Aim, Objectives, etc. At [Exercise] Cruickshank, it was clear from the start that those lessons had indeed been learnt.

I commend the Ministry of Health staff that planned Exercise Cruickshank. Everything about the running of the exercise was to the highest of standards.

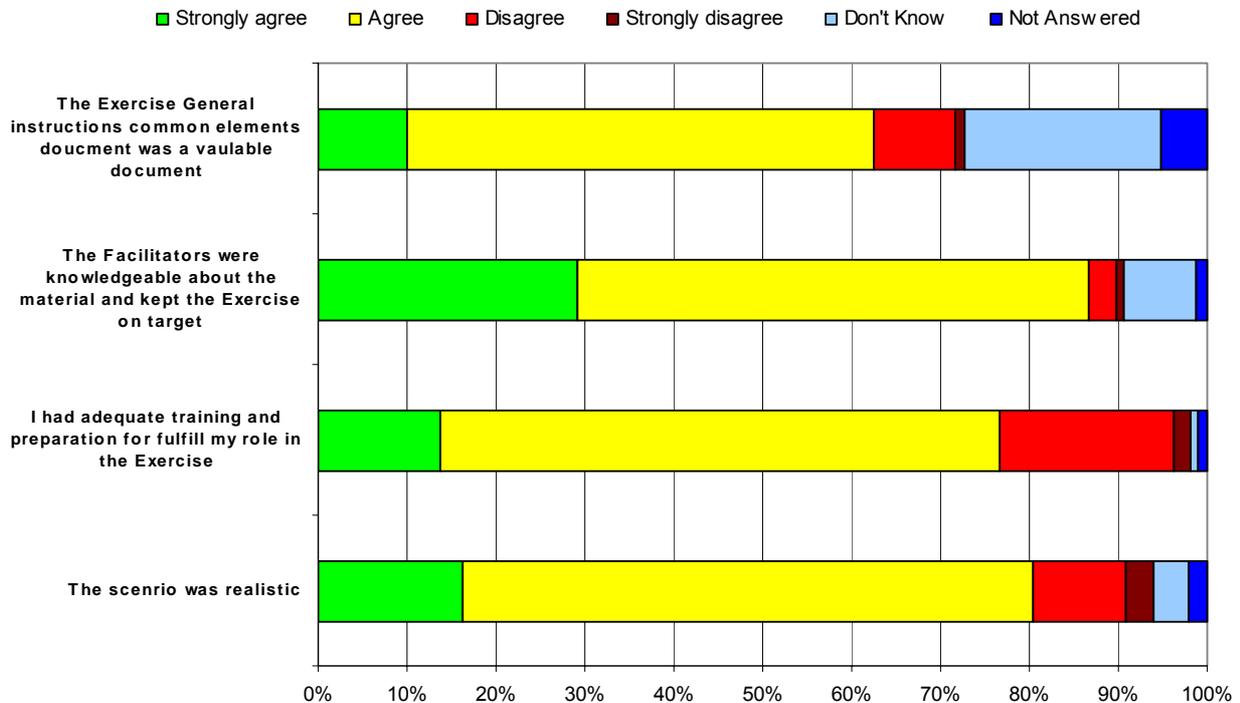
#### **7.1.2 Evaluator 2**

National Exercise Control conducted a well planned and well documented exercise. There were over 60 exercise inputs (injects) on Day 2 and over 70 on Day 3. If there is any criticism at all it is that there was probably too much written material for the players to absorb in the timescale. But this criticism is very minor to the overall way in which the exercise was conducted. Exercise Control made good use of technology, which occasionally let them down, and I was particularly impressed with the establishment of a website for control and information purposes.

Also I believe an exercise of this scope should involve the real Domestic and External Security Committee, Official Domestic and External Security Committee and politicians in the decision making process, as opposed to this being handled by Exercise Control. Everyone at this level gets involved in the LAWMAN/RESOLUTION series of Counter Terrorism Exercises, and it has enormous benefits in people working together and becoming familiar with the various processes. Exercise CRUICKSHANK is too important for them not to be involved. It would also have the added benefit that agencies/organisations reporting late to these bodies would then very quickly learn the value of prompt and accurate reporting.

## 7.2 Player feedback on EXCON

A number of exercise components were commented on by players through the exercise player evaluation forms and those relating specifically to Exercise Control are noted below. The graph summarises the distribution of feedback received from exercise participants, relating specifically to Exercise Control, of which the feedback is generally positive.



## 7.3 Common themes

The following sections summarise the common themes and findings that were communicated to the Ministry of Health via assessment reports, exercise control evaluation forms (local level) and hot and cold debriefs in relation to Exercise Control.

The feedback acquired was predominantly qualitative, and this information has been summarised into broad categories.

Most participants believed the exercise was valuable, and in order to retain the current level of focus and momentum, it is recommended that the Ministry of Health establish a continual exercise programme. The frequency, scale and scope of any future exercises would depend on what needed to be assessed.

### 7.3.1 Design

#### Realism

Although the overall flavour of feedback about the exercise was positive, players did raise concerns about aspects of the realism of the exercise, including:

- the number of cases and expected response timeframes
- going to Code Red on the morning of Day 3, when in reality this would have occurred much earlier
- a planning group was not used, so no long-term planning was done.

Although it is accepted that there may have been an opportunity to build more realism into the exercise, the broad scope and extent of agency involvement always meant some level of artificiality would exist.

#### Acronyms

The heavy use of acronyms throughout the exercise caused confusion. Given that several participants involved in an exercise such as this do not come from the health or emergency sectors, full text descriptions should be used wherever possible rather than health-related acronyms.

#### Mapping participants

The Ministry of Health's approach to allow agencies to practise their own independent exercises during Exercise Cruickshank caused some confusion. Although during the design phase of the exercise, the Ministry had requested feedback on the scope of involvement from those agencies indicating they would take part, this feedback was limited. The result was a map of exercise participants that did not fully reflect the actual participants. As a result, players in the National Health Co-ordination Centre and National Crisis Management Centre were not clear about which and to what extent other agencies were playing. This caused confusion and wasted time and must be addressed before any future exercise.

#### Scope of play

The scope of play and interpretation of the exercise was different across playing organisations. On occasion during the exercise days, independent exercise injects from District Health Boards and other agencies encroached into Exercise Cruickshank, causing confusion at a national level. This was due partly to the flexibility for individual agencies to run independent exercises, and partly due to the inexperience of some planners when planning their independent exercises. Although the Ministry of Health made it clear during pre-exercise briefings and between exercise days that independent exercises were not to encroach on the core scenario and injects of Exercise Cruickshank, on occasion this still occurred.

The notional dates used in the exercise caused confusion. It has been suggested that for future exercises, notional dates should be considerably different from the actual date or be the actual date. This may reduce some of the confusion that participants experienced in going from Days 1–3.

The non-government organisation sector was not fully engaged or tested as part of Exercise Cruickshank. Although the non-government organisation sector was not part of the scope of this exercise, it has been perceived as having an important role in the response, which requires testing, so should be included in future exercises.

### Setting up emergency operations centres

Procedures for setting up emergency operations centres were not tested. Given that agencies knew when the exercise was happening, they had the opportunity to set up emergency operations centres before the exercise days. Informal feedback about the setting of up emergency operations centres suggests that this could be done relatively quickly in many localities (within 3–6 hours). Future exercise should test this. This could also be tested by activating the National Health Co-ordination Centre for smaller health emergencies.

### Artificiality of the exercise

The artificial nature of the exercise meant not all staff time was dedicated to the type of work required if the event were real. Some time was spent on work that would already have been done in earlier stages of the pandemic. As a result, work that was more relevant to the particular phase being practised was sometimes delayed. To mitigate the impact of this on future exercises, a single phase rather than multiple phases could be tested.

## 7.3.2 Communication

### Email

The notional Officials Committee for Domestic and External Security Co-ordination (being played by Exercise Control) did not have a separate email address, so information for the committee was sent through the general Exercise Control email address (along with other information not related to the committee). This caused confusion for participants when responding to the notional committee.

### Classified information

A consideration for the future could be the transmission of classified material. Some of the Ministry of Foreign Affairs and Trade cables may have been too sensitive to discuss at a RESTRICTED or CONFIDENTIAL level, particularly those referring to New Zealand's political stance in relation to other countries. There are channels specifically catering for the transmission of highly classified material and the Government Communications Security Bureau could advise on the most appropriate ones to use.

## Text messaging

Participants felt the text messaging function used during Exercise Cruickshank was an efficient and effective method of communicating with exercise facilitators and evaluators. Messages (limited to 256 characters) could be sent to multiple recipients at once from a single email account. During the regional debriefs, it became clear that the use of text messaging as a means for mass communication should be considered as part of a real emergency response programme. For text messaging to be effective, the cell phone numbers held must be correct and complete. However, the experience of other agencies in other emergency events has not been as positive, and should be taken into account.

### **7.3.3 Human resources**

The exercise relied on evaluators and facilitators at the different sites to monitor progress against the performance indicators for the day, and to prompt players to address actions associated with those performance indicators if no action was being taken. Feedback on these roles was generally positive.

### **7.3.4 Systems, tools and processes**

#### Extent of exercise documents

Documentation for this exercise (co-ordinating instructions, facilitator instructions and general instructions and so on) was extensive. Exercise Control received requests for more information from players during the planning phase, so several documents (for example, the co-ordinating instructions) became lengthy. On the other hand, the number and length of documents confused some players, particularly agencies playing only a small part on the days.

#### Injects

The exercise was based around minimal injects, the focus being on exercise interaction driving exercise play. Overall, participant feedback indicated that the approach worked well and should be standard practice in the future. However some believed that more injects were required to fully test response capability (eg, queries from the public and media).

On occasion, players thought timeframes for responding to injects were unreasonable or impractical for gathering the required information from the sector. It is important to agree before an emergency on stakeholder expectations of what can and cannot be provided and the timeframes involved in gathering information and communicating with the sector.

## 8 Observer Programme

### 8.1 Background

The Ministry of Health established a formal observer programme as part of Exercise Cruickshank. The purpose of this programme was to invite representatives from various countries and agencies with an interest in, or that would benefit from, observing New Zealand's response to a pandemic event simulated as part of Exercise Cruickshank.

Fifteen representatives from Australia, the Pacific Rim and New Zealand attended the observer programme. In addition, there were representatives from the World Health Organization, foreign commissions and various national agencies.

### 8.2 Programme details

The observer programme ran over Days 2 and 3 (16 and 17 May 2007), as these showed key operational phases for the health sector. Observers had a chance over the two days to see pandemic response activities in a Wellington hospital and at the National Health Co-ordination Centre at the Ministry of Health National Office. During this time, the Ministry of Health's responsibilities as overall co-ordinator of the government sector through the National Crisis Management Centre were also observed. Although numerous exercise activities were occurring across the country, the focus for observers was kept to activities within the Wellington region.

### 8.3 Observer feedback

All observers were given the opportunity to provide feedback on their individual and collective observations of Days 2 and 3 of the exercise. This feedback has been incorporated into the analysis section of this report wherever possible.

Key comments from observers include the following.

Observer commentary detail
'From what I observed, the facilities and communication equipment seemed adequate. It was enlightening to see the use of WebEOC software that enabled real time posting of updates, events etc. that can be viewed by most all of those who needed the information.'
'There seemed to be a real 'buy in' by many non-health areas in participating in the exercise to the point where it appeared that the emergency management facilities used, that ordinary are run by other agencies, were used quite effectively by the health sector as the lead agency.'
'The utilisation of an international recognized incident management system is noteworthy as it demonstrated the willingness of New Zealand to learn by others mistakes and its ability to massage the system to meet the needs of New Zealand.'

### Observer commentary detail

'New Zealand should also be commended for having such a transparent observer programme. Observers were not rushed, allowed to ask questions of the front line workers and it seemed that suggestions for improvement were taken seriously.'

'The response seemed very co-ordinated. That said there seemed to be a lull in activity towards the end of the exercise.'

'Exercise Cruickshank was very well organised and it was certainly comprehensive. All the equipment was working and everyone appeared to know their roles. The proximity of Ministries and government offices also helped. The fact that all Ministries would be using [the co-ordinated incident management system] is a real bonus. Plus, the [information technology] was working on the day. This is essential as [information technology] underpins everything.'

'I was particularly struck at how realistic the scenes were at Wellington Hospital, the community-based assessment centre and the school. At the school the preparation had been worked all the way through. Notes had been taken home to parents explaining what the school would be doing, and Newlands Intermediate were actually going ahead with closure to put their plan for evacuation into action. Children were being taught hygiene precautions, etc. And at the community-based assessment centre they had started from scratch with ordering the screens to build the individual interview booths (and judging how easy this was), gowning and masking the staff and bringing in testing kits. The hospital had done valuable research on the procurement of infant Tamiflu doses, and thought through the best way of keeping potentially infectious people out of hospitals.'

One respondent observed that although the objective was met there were issues of staff who would not want to work in a real pandemic situation (or demanding Tamiflu) coupled with logistics of who gets [personal protective equipment], training in [personal protective equipment] use, Tamiflu, disinfection, and risk communication does pose a risk to the individual if not completed adequately.

Overall, the observer feedback was positive and encouraging, particularly from the World Health Organization's representative. New Zealand is seen to be organised, prepared and proactive in response to the threat of a pandemic outbreak.

## 9 Conclusion

Exercise Cruickshank was the largest exercise of its type undertaken in New Zealand. It encompassed government agencies at all levels.

The overall aims of Exercise Cruickshank were to:

- strengthen intersectoral readiness to keep out, stamp out, manage and recover from pandemic influenza in accordance with the New Zealand Influenza Pandemic Action Plan
- identify areas for improvement in the New Zealand Influenza Pandemic Action Plan.

Exercise Cruickshank successfully achieved its objectives and was seen to be a worthwhile and constructive exercise that will enable New Zealand to improve its ability to plan for, respond to and recover from a pandemic event.