



Republic of Korea

Flufighter

1. Background

The Government of the Republic of Korea has developed the *Pandemic Influenza Preparedness and Response Plan*, which consists of the following seven components:

1. command and control, coordination
2. risk communication
3. surveillance
4. medical services
5. vaccine and antivirals
6. public health measures
7. training and education, research.

To date, the government has conducted two major simulation exercises to test and revise the plan, on 31 March 2005 and on 11–12 October 2006. In addition, local pandemic influenza exercises took place in 2007.

This section features the exercise that took place in October 2006.

2. Objectives

- a. To improve the national crisis response capability:
 - to improve decision-making abilities of related officials in the central government and local authorities;
 - to help to make decisions on prioritizing distribution of limited medical resources;
 - to encourage local authorities to make prompt and proper responses in a competitive environment.
- b. To protect national health and establish a social safety network:
 - to help the general public understand the response system for pandemic influenza;
 - to establish an international collaborative system for control of pandemic influenza.



KCDC Crisis Command and Control office provides a single point of coordination for response to public health crisis and enables videoconferencing with WHO.

3. Participating agencies and organizations

Table 13
Participating agencies and organizations

Principal participants

Experts from the Ministry of Health and Welfare, and the Korea Centres for Disease Control and Prevention (KCDC)

Officials from 16 cities/provinces, 4 quarantine stations

Related agencies

Government Information Agency

Ministry of Education and Human Resources Development

Ministry of Foreign Affairs and Trade

Ministry of National Defence

Ministry of Government Administration and Home Affairs

National Police Agency

National Emergency Management Agency

Ministry of Agriculture and Forestry

Ministry of Justice

Ministry of Environment

Ministry of Labour

Korea Coastguard

Office of National Security Council

Emergency Planning Commission

Korean Hospital Association

Korean Society of Preventive Medicine

National Intelligence Service

4. Type of exercise

Full-scale exercise (Functional exercise at national level combined with drills for rapid response teams).

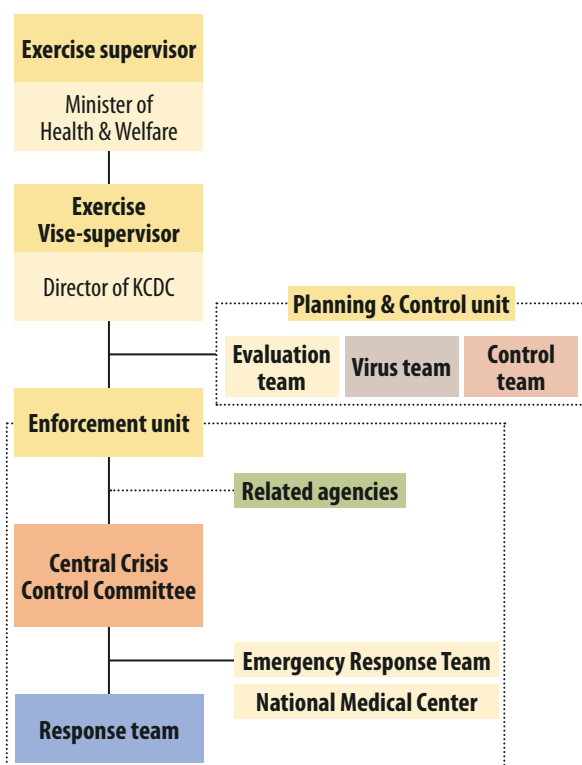
5. Preparation of the exercise

The Minister of Health and Welfare and the Director of KCDC led the exercise as Supervisor and Vice-Supervisor,

respectively. The exercise organizational structure was mainly composed of a Planning and Control Unit and an Enforcement Unit. The former planned, prepared and controlled the exercise while the latter conducted the exercise and submitted response plans. The Planning and Control Unit consisted of a Control Team controlling the exercise, a Virus Team preparing scenarios and messages, and an Evaluation Team assessing response plans.

The Enforcement Unit was divided into the Central Crisis Control Committee, which provided measures on the central government level; a Response Team, composed of quarantine stations in 16 cities/provinces; and related agencies. The Emergency Response Team and the National Medical Centre in the Central Crisis Control Committee implemented on-site exercises.

Figure 5 Exercise organizational structure



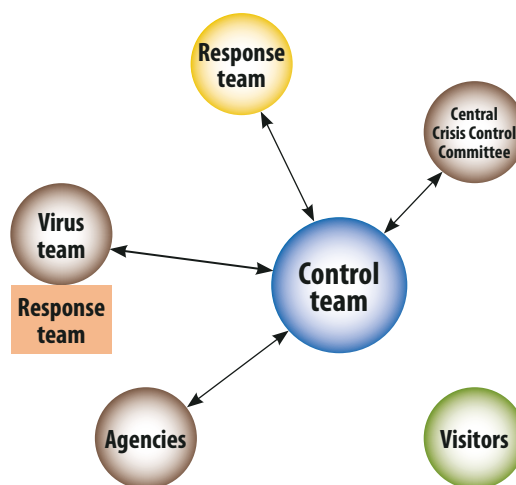
6. Conduct of the exercise

The exercise primarily took place at KCDC, where liaison officers of central government agencies and officials from metropolitan and provincial governments convened. Five unfolding scenarios were developed that started from a suspected human-to-human infection overseas and then moved to imported cases, which caused local outbreaks all over the country.

Participants were divided into different teams, including a Response Team, Control Team and Virus Team, and were requested to respond to a number of injects under

each scenario that were given through a special web site set up for the exercise.

Figure 6 Response plan



A significant feature of this exercise was provision of a virtual environment close to the real world. Five 'breaking news' video clips were developed for viewing by the participants at the onset of every scenario to provide a realistic atmosphere and a sense of urgency. A mathematical model was used that could result in 1040 different outcomes in the number of patients and deaths, depending on how participants responded to a series of injects. Mock media interviews were used to test the performance of local public health professionals.

7. Evaluation

An evaluation committee was established to assess the performance of the participants. Process indicators were developed prior to the deployment, which could score the performance of participants on a scale of 0–5 for each action. Outcome indicators were also developed which consisted of the number of patients and deaths, based on mathematical modelling.

8. Lessons learnt

8.1 Preparation for and conduct of the exercise

The exercise revealed that it is essential for the planners to take a teamwork approach when they are preparing for a large-scale exercise. The planners must ensure an effective distribution of tasks throughout the whole process to develop the scenario and training guidelines, attract participants to the exercise and set up equipment and exercise sites. It is particularly important to secure administrative assistance, which could be key to the success of the exercise. If departments find it hard to tackle a task on their own, they must take a task-force approach.

It is also necessary to establish cooperation among different ministries in order to secure their help in conducting the exercise and to reflect their opinions in the exercise. It is also important to forge a team of experts in infectious diseases and preventive medicine who can provide technical input into the exercise design.

Participants' ability to manage crisis situations was enhanced through new approaches introduced through exercise guidelines, reference materials and pre-exercise workshops. However, after the exercise it was clear that more should have been done to make these methods more concrete and detailed. Thus it was recommended to other departments preparing such crisis management

exercises that they focus on how to improve the participants' ability to manage crisis situations.

8.2 Pandemic preparedness

There is a need to develop manuals that identify ways to secure and distribute medical resources and define the roles of relevant agencies in the event of a pandemic. Also, priorities must be set to secure and use adequate medical resources.

The infrastructure for the initial response to an outbreak must be well established and should include rapid response teams, isolation facilities and mobilization of medical equipment for severe cases.

Table 14 Exercise time-frame				
Day 1: October 11 (Wednesday)				
Hours	Required time	Stages	Other remarks	Detailed schedule
08:30–09:00	30 min	Registration		Participants registration, exercise garments distribution
09:00–09:10	10 min	Opening ceremony		National ceremony, KCDC head greetings
09:10–09:20	10 min	Schedule introduction		Participants & schedule introduction
09:20–09:30	10 min	Transfer to the location		Public notice & transfer
09:30–10:30	1 hour	Situation phase 1		09:30–09:40 Video data & situation description (10 min) 09:40–10:30 Situation 1 exercise (20 min) –10:00 Emergency response team leaves for the location
10:30–12:30	2 hours	Situation phase 2	Emergency response team	10:30–10:40 Video data & situation description (10 min) 10:40–12:30 Situation 2 exercise (110 min)
12:30–13:30	1 hour	Lunch	Onsite exercise	
13:30–17:00	3 hours 30 min	Situation phase 3		13:30–13:40 Video data & situation description (10 min) 13:40–17:00 Situation 3 exercise (200 min) –14:00–16:30 Media exercise –16:10–16:20 Video conference (Epidemics response center head - emergency response team)
17:00–17:30	30 min	Break & preparation		Transfer and public notice

Day 2: October 12 (Thursday)				
Hours	Required time	Stages	Other remarks	Detailed schedule
09:00–09:30	30 min	Schedule introduction		Public notice & transfer
09:30–12:30	3 hours	Situation phase 4	National medical center Onsite exercise	09:20–09:30 Video data & situation description (10 min) 09:30–12:30 Situation 4 exercise (180 min)
12:30–13:30	1 hour	Lunch		
13:30–15:30	2 hours	Situation phase 5		13:30–13:40 Video data & situation description (10 min) 13:40–15:30 Situation 5 exercise (110 min) –14:00–14:10 Video conference (National medical center director – KCDC head)
15:30–16:00	30 min	Break & preparation		Transfer & break
16:00–17:30	1 hour 30 min	General discussions		Final evaluation