Public Health Crisis Preparedness and Response

TABLE-TOP EXERCISE AGAINST THREATS FROM EMERGING INFECTIOUS DISEASE

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Objectives of the exercise

- Find types and amount of resources needed at the time of emergency
- Develop optimal strategies for decision makers to utilize existing limited medical resources to minimize the threats
- Pull out appropriate manual to follow in the public health emergency from the exercise experiences
## Central Control Support Committee (1)

<table>
<thead>
<tr>
<th>Organization</th>
<th>Functions</th>
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| **National Security Council**                          | • Planning and coordination for the establishment of control system for emerging infectious diseases  
                                                      | • Planning and coordination for the establishment and application of the national emergency warning system |
| **Office for Government Policy Coordination**           | • Management of the Central Safety Control Committee  
                                                      | • Establishment and coordination of a cooperative system among various government agencies |
| **Ministry of Planning and Budget**                     | • Timely budget support for emerging infectious diseases control                                                                          |
| **Government Information Agency**                       | • Coordination of publicity within the country                                                                                           |
| **Ministry of Education & Human Resources Development** | • Health management in schools  
                                                      | • Temporary closure of schools                                                                                                           |
Participants (150 people)

- officials from 16 cities and provinces, public health centers and KCDC
  - 16 cities and provinces were divided into 4 regional teams
- central governmental officials from 14 agencies including NSC
- health experts from 3 medical institutions, 5 civil groups such as Korean Medical Association
- Politics & Military game experts from Korea Institute for Defense Analyses (KIDA)
- Professor of Korea University Medical College
- Observers from WHO and MHWL, Japan
Participating Organizations

- National Security Council Secretariat
- The Office for Government Policy Coordination
- Ministry of Planning and Budget
- Government Information Agency
- Ministry of National Defense
- Ministry of Government Administration and Home Affairs
- Ministry of Agriculture and Forestry
- Ministry of Health and Welfare
- Ministry of Labor
- National Intelligence Service
- National Police Agency
- National Emergency Management Agency
- The Armed Forces Medical Command
- National Veterinary Research and Quarantine Service
- National Medical Center
- Seoul Medical Center
- Inchon Medical Center
- Korean Medical Association
- Korean Hospital Association
- The Korean Society of Infectious Disease
- The Korean Pediatric Society
- The Korean Society for Pediatric Medicine
Team “Control”

Provide Scenarios
Score and Evaluate

Team “Disease”

Submit Control Measures taken

Team “Response”

Team “committee”
Introduction

Numbers of cases

Scenarios

Simulation
• Parameters
• Disease nature
• Country factors

Resource Study
Recognize the Limitation

Set Simulation
Phase 1–4

Epidemiologic Tree
Previous Experience
Traffic, geographic...

Score & evaluation
Interactively

Prepare a Strategic Plan how to solve it NOW
Develop a Manual updated
Projected number of cases in Capital area by Model maker

- 1,000,000
- 2,000,000
- 3,000,000
- 4,000,000
- 5,000,000
- 6,000,000
- 7,000,000
- 8,000,000

Month/day

- NO isolation
- Isolation (L)
- Isolation (M)
- Isolation (H)
Phase of EID Pandemic

Phase I
Suspected Patients is discovered

Phase II
Outbreak in some region

Phase III
Outbreak in the whole country

Phase IV

Public Health
Give the warning
- Enhance quarantine & surveillance
- Research into the track of the epidemic
- Secure the isolation facilities
- Prepare a plan to secure additional medical resources
- Send a manpower to help quarantine

Give the alarm
- Prevent the diffusion within the region
- Enhance watch over the epidemic
- Quarantine the patients in groups
- Secure isolation facilities and manpower in quarantine station
- Prevent the infection within medical centers
- Secure resources and distribute them appropriately

Mobilize the medical Personnel
- Issue a mobilization order for healthcare manpower
- Secure isolation facilities for quarantine
- Use local medical centers as a base hospitals
- Seek the military force’s help to get medical manpower and medical centers

General Administration
- Run the Central Countermeasure Committee
- Close schools in the contagious region
- Enhance management in vulnerable areas

Control the traffic and close schools in the regions
- Prohibit any events and gatherings
- Broadcast emergency breaking news

Control the traffic and close schools on a nationwide scale
- Strengthen the public security and safety net
- Provide the necessities of life

Declare emergency state
- Secure alternative medical manpower and facilities
- Call the military medical manpower and the military medical facility

Marshall Law

Objective of response
Prevent the influx the disease into the country
Prevent the nationwide spread of the disease
Minimize the numbers of patents and death
Early rehabilitation of the basis of public healthcare
Supporting technologies

- **Pre-made news coverage** (video clips of TV breaking news and a newspaper)
- **Web software to exchange documents** (*Smart E-mails*)
- **Web page** for the exercise communication
  - Computerized program for risk management exercise
  - Automated counting of medical resources use
- **Video Conference and Conference Call**
  - Web-based Live-broadcast of the exercise
  - Connects Central Countermeasure Committee, 16 provinces and other relevant agencies
- **Web-based cell phone communication system**
  - To send public health emergency messages, orders and instructions
Development of exercise guidelines
Exercise progress

Disease team

① Presentation of offense message
③ Submission of response plans
⑤ Delivery of latter-stage response plans

Response team

① Delivery of offense message
③ Submission of response plans

Control team

④ Submission of evaluation report on the response plans
⑤ Instruction of latter-stage countermeasures

Central Countermeasures Committee

Central Control Support Committee

Central Working Group

Advisory Committee
대응팀 - 환자에 대한 조치 -

가용일반병상: 6484병상, 가용중환자실: 189병상, 가용창고병실: 775병상
가용대체의료시설: 500병상, 가용환자관리소: 0인분

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Scenario of the next phase according to the score of the response

[ the score of the response ]   [ Scenario of the next phase ]

More than two of the four region got the score ‘bad’

One of the four region got the score ‘bad’

None of the four region got the score ‘bad’

Scenario A

Scenario B

Scenario C
Major Issues of Discussion

- When and who should wear Personal protective equipment
- Time and method of distributing central stockpiles
  - Medical supplies, daily necessities
- Improving capacities of hospitals
- Alternatives to the lack of public health workers for infection control
  - KCDC, cities, provinces, counties, districts, 911 drivers
- Information Management
- Optimization of Decision-Making Channels
- Isolation
  - Who should be isolated and where?
- Restriction of transport and public gatherings
Lessons Learned

- **Need to develop risk management manuals**
  - Identify ways to secure and distribute medical resources and define roles of relevant agencies in the EID pandemics

- **Set priorities to secure and use adequate amount of medical resources**
  - What is the most cost-effective amount of medical stocks?
  - How can we obtain and store medical resources?

- **Reinforce relevant laws**
  - Legal grounds for implementing necessary measures (making decisions, mobilizing medical staff and resources) should be included in the *Communicable Disease Prevention Act*
  - Revision of IHR to effectively address emerging infectious diseases response based on reality

- **Establish infrastructure for initial response to outbreaks**
  - Rapid Response Team, isolation facilities and remobilization of medical equipment for caring for severe cases

- **Promote interagency collaboration and cooperation**
Epilogue

Core Success Factors

- **Initial stage**: CEOs should recognize its need and exert **LEADERSHIP**
  - Decision Making at Uncertain times

- **Pre–exercise preparations**: active involvement of managers at middle level
  - Is it absolutely necessary to conduct this exercise?
  - The existing guidelines are good enough—why do we need a new manual?
  - We are doing our best in securing necessary budget and orders by official documents will be enough if needed.

- **Active participation and well–organized team**
  - War game experts joined the event
  - Active participation of relevant agencies
    - Resolve interagency conflicts and develop skills to negotiate with the communities
Future plans

- **2006 exercise**: 28–30 June in Seoul
  - WPRO and APEC economy will be invited to the exercise and the international workshop (30 June)

- **Objective of the exercise**
  - Test the developed manual for crisis management of Pandemic
  - Test interactive decision making process under the public health emergency and uncertainty with resource limitation

- **Extend participants from private sectors**

- **Implement field exercise at school and hospital**

- **Update manuals**
Thank you