
Indonesia Field Simulation Exercise for the containment of an influenza pandemic epicenter

in Dangin Tukaddaya Village, Jembrana, Bali
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This presentation uses as a source simulation materials provided by the Ministry of Health of the Republic of Indonesia, and credits UNICEF Indonesia for the simulation pictures.

Background

- Until April 2008 the cumulative number of avian influenza human cases in Indonesia had reached 132 cases with 107 deaths.
- Pandemic influenza threat has not disappeared and Indonesia, as other countries, has to anticipate its arrival and prepare for it.
- National Strategic Plan for Avian Influenza Control and Influenza Pandemic Preparedness (2006-2008) as an integrated framework for pandemic preparedness.
- Some sector specific plans and guidelines exist , including guidelines and protocols for containment.

General Simulation Objectives

- Test the operational capacity and capability of Indonesia to promptly and effectively contain an epicenter of human-to-human transmission of a novel strain of influenza virus.
- To have well-tested Indonesia's capability in implementing influenza pandemic containment epicenter at its original place.

Specific Objectives

- To have well-tested capability at the central, provincial, district and local levels to rapidly respond to any pandemic influenza signals.
- To have well-tested and effective protocols and operational plans which will be used to contain epicenter of pandemic influenza.
- To have available positive inputs that can be used to strengthen the influenza pandemic epicenter containment plan.

Simulation participants

- The exercise involved almost 1,000 planners and participants from all government levels and sectors (multiple agencies and ministries from the Government of Indonesia, the Bali Provincial government, and Jembrana and Tabanan District government, the airport authorities, the police, and the military).
- In addition, there were more than 50 observers from international organizations and more than 150 local observers at the event.

Simulation participants

- the National Commission for AI and Pandemic Influenza
- the Ministry of Health
- the Coordinating Ministry for People's Welfare
- the Ministry of Social Welfare
- the Ministry of Research and Technology
- the Ministry of Environment
- the Ministry of Internal Affairs
- the Ministry of Foreign Affairs
- the Ministry of Transportation
- the Ministry of Communication and Information
- the Ministry of Agriculture
- the Ministry of Finance
- the Ministry of Education
- Armed Forces
- Police Forces

Style of the exercise

- This was a full-scale field simulation exercise, and a first of its kind in the world in comparison to several functional exercises that had been conducted in various countries and regions.

Preparation of the Exercise

- The Ministry of Health Indonesia prepared for the exercise over the period of more than 8 months.
- The planning process was deemed just as important as the final simulation itself as it built planning and organizational capabilities, and the brainstorming sessions were invaluable to understand the concepts during epicenter containment.
- Substantial effort was made to develop the capability and capacity of the simulation team to ensure smooth conduct of the simulation, and to train the local officials in simulation organization. This included the core simulation center, controllers, simulators, evaluators, and administrators.

Activities included in preparation

- Finalizing the overall guidelines for epicenter containment
- Finalizing the draft protocols and standard operating procedures across 9 working groups (corresponding to 9 key areas identified and elaborated later) at the central government level
- Central level table-top exercise to test the relevance of the protocols and standard operating procedures across different scenarios

Activities included in preparation

- Table-top for local participants to test the adaptation of the generic central level protocols and standard operating procedures into the local context
- Field assessment with local participants to test the implementation of the contextualized protocols and operating procedures
- Dry run and final preparations
- Simulation exercise proper
- Evaluation and integration of lessons learnt into the final programs

Conduct of the exercise



Conduct of the exercise

- The three-day exercise took place in multiple locations in Bali.
- The exercise scenario illustrated the Government of Indonesia operational plans for rapid response and containment of human-to-human transmission of H5N1 influenza.

Scenario Exercise Day 1

Timeframe: November 9-11, 20XX:

- Epidemiological investigations in the community and health care facilities identified patients with suspect human to human transmission. Patients with novel influenza illness presented at the community health center and local hospital and were managed and referred to the influenza referral hospital. Reporting of these cases was performed according to command protocols. Local, and later provincial and national, rapid response investigation teams were sent to conduct case investigation and management of contacts. In addition, 2 healthcare workers at the referral hospital in contact with the cases were found to be ill, and emergency measures had to be initiated.

Scenario Exercise Day 2

Timeframe from November 12-14, 20XX:

- The Regent and their stakeholders initiated necessary preventive measures in the face of epidemiological signals of human-to-human transmission. On November 14, virological results indicated that the H5N1 virus has mutated to a form that allows efficient human to human transmission. After WHO consultation with the Government of Indonesia, it was decided that the global pandemic alert phase will be changed from phase 3 to phase 4. The government operated the epicenter containment and quarantine efforts from November 14 until there were no cases found within a two week period since the last case. During this time the ports (land, sea and air) were actively operating perimeter control of human and logistic traffic departing from the containment area.

Scenario Exercise Day 3

Timeframe from November 14-December 10 20XX:

- Epicenter containment activities are now in full swing, encompassing all components of the key areas of containment.
- By December 10, 2 weeks have passed since the last case of pandemic influenza was detected, and advisors recommend that the epicenter containment can be lifted. The simulation exercise ended at the time of withdrawal of area quarantine and announcement by the Minister of Health of successful containment of the pandemic influenza epicenter.

Conduct of the Exercises

- The exercise covered 9 key areas identified by the government of Indonesia as key to the containment of an epicenter.

Conduct of the Exercise

1. Command and coordination
2. Risk communication
3. Logistics including essential supplies and services
4. Surveillance
5. Antivirals / PPE / vaccines
6. Medical response
7. Non-pharmaceutical intervention
8. Area quarantine
9. Port health

Command and coordination



Risk communication



Logistics, supplies and services



Surveillance and early detection



Antivirals, PPE, Vaccines



Medical care



Non-pharmaceutical



Closure of schools



Area quarantine



Area quarantine



Port health



Evaluation

- The more than 50 international and over 150 local observers provided feedback and shared their observations on the conduct of the simulation and activities undertaken.
- An evaluation meeting discussed this feedback and considered resulting next steps for pandemic preparedness.

Evaluation

- There are also plans to produce the final guidelines, protocols, and operational procedures for epicenter containment in Indonesia based on the feedback and evaluation.
- These will be packaged into a training program for all provinces and districts. Train-the-trainer sessions will be conducted where master trainers will be trained to perform advocacy and conduct pandemic preparedness training and simulations at the various provinces and districts.
- There are also plans for the development and testing of similar operating procedures for a full scale pandemic, as this will be synergistic with epicenter containment.

Observations

- There was universal agreement from all observers that the exercise was extremely well planned and conducted, and that it made significant contributions to local and national planning efforts.
- Participants consistently showed imagination and initiative in devising innovative solutions to problems that arose during the simulation.

Lessons learned

- Simulation resulted in a number of lessons learned and recommendations arising on all areas covered.
- The simulation report will be prepared and key lessons included in the final epicenter containment documents.

Simulation report

- In addition to the final report a video for the simulation including the planning process and evaluation will be prepared.
- Also: Simulation Exercise Booklet on Influenza Pandemic Responses in Asia Pacific (UNSIC in collaboration with Asian Disaster Preparedness Center and Keenan Institute Asia)

Thank You.....

