

1. Background

Pandemic preparedness measures carried out by the Government of Myanmar include the following:

- Development of the *National Strategic Plan for Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response* in January 2006. Subsequently, an Operational Workplan with detailed activities and budget was developed in June 2006 and revised in 2007. Another revision of the Operational Workplan is currently being developed. The National Strategic Plan is due to be revised in 2008 after the conduct of the national simulation exercise, which is expected to take place in the second half of 2008.
- Stockpiling antivirals and PPE.
- Legislation revision: laws and administration guidance are currently under review.
- Simulation exercises.
- Cross-border collaboration and networking in the region and at the global level.

A number of TTXs have been held in Myanmar. A national TTX was conducted in October 2006 in Yangon with technical support from Mekong Basin Disease Surveillance (MBDS) in close collaboration with WHO. Additional TTXs were held in November and December 2007 in eastern Shan State after the first human infection with H5N1 avian influenza in Kyaing Tong, and in March 2008 by the Ministry of Hydro-electric Power. In addition, a one-day TTX was organized at each rapid response team training, in which 17 state or division and 37 district rapid response teams have participated to date.

2. Objectives

The objectives of the exercises were to:

- examine the feasibility of the National Strategic Plan and Operational Workplan standard operating procedures;
- identify priority actions to further improve preparedness and responses;
- test and reinforce the cooperation among relevant departments and ministries, local government and organizations;
- develop recommendations to help guide the revision of the National Strategic Plan.

3. Participating agencies and organizations

Table 10
Agencies and organizations participating in TTX organized by MBDS on 16 October 2006

Ministry of Health
Department of Medical Research
Livestock Breeding and Veterinary Department
Central Epidemiology Unit, Department of Health
Township Medical Officers (TMO)
Special Disease Control Units (SDCU)
National Health Laboratory (NHL)
Mekong Basin Disease Surveillance (MBDS)
Yangon Airport
Yangon Seaport
Yangon General Hospital
Mandalay Hospital
Waibargi Hospital
Ministry of Health, Lao People's Democratic Republic
RAND Corporation

4. Type of exercise

TTXs in central and eastern Shan State and in all rapid response team training curriculums, and drills at avian and pandemic influenza designated hospital in Yangon.

5. Preparation for the exercise

An exercise planning team was established consisting of staff from the Central Epidemiology Unit (CEU), Department of Health and other departments within the Ministry of Health, MBDS, Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) and WHO. In preparation, meetings were held among:

- departments from central and state/division, and port health authority;
- agencies, including the Ministry of Health, MBDS, ACMECS, WHO.

6. Conduct of the exercise

The national TTX began with a general introduction to the exercise and an overview of simulation exercises in

the region. Sequential deliberations followed in four steps. During the first three steps the exercise participants were divided into small groups to discuss two main questions related to each of the three different preparedness areas covered in the exercise. Each group was made up of representatives from various departments. English and Myanmar were used as working languages. After each of these steps, participants met together in plenary to summarize what their small groups had discussed. The exercise scenario started with human-to-human infection outside Myanmar, and evolved into a situation where Myanmar identified an outbreak of human infection of avian influenza. The scenario ended during the early phases of a pandemic, before reaching the proportions of a full pandemic.

The final step involved having participants return to the present to plan for potential future needs. Participants selected key actions and associated challenges identified during each step of the exercise and developed initial plans to begin addressing each of them. Initial action planning considered what near-term tasks to take, how to overcome expected challenges, who was responsible for each task, and an initial time-line to complete the tasks.

7. Evaluation

The national TTX was observed by experts from MBDS and WHO, who provided evaluation feedback after the exercise. Participants were also given opportunities to provide feedback. All participants and observers completed a pre-exercise evaluation on the first morning and a post-exercise evaluation at the end of the second day that enabled comparison of the effects of the exercise.

Evaluation of the national TTX was conducted by an expert team from RAND Corporation, WHO, MBDS and the Ministry of Health after the exercise had concluded. Other ministries also attended the workshop as observers. A summary meeting to discuss the performance of the exercise was held with the participation of key representatives from the participating agencies. The Operational Workplan plan was reviewed in light of lessons learnt in the exercise.



TTX at Kyaing Tong, eastern Shan State.

8. Lessons learnt

- **High-level government commitment, strong coordination mechanisms and collaborative working arrangements are essential.** For implementation of preparedness activities and exercises, it is important to have a coordination structure that is empowered with multi-sectional responsibilities. Such a level of coordination would foster, in the event of influenza pandemic, an effective integrated national response that would involve all technical ministers in charge of animal and human health, as well as other relevant sectors, at the national and subnational level.
- **Preparedness is a key factor for success.** While Myanmar has a National Strategic Plan and an Operational Workplan for prevention and control of an influenza pandemic, all relevant agencies and stakeholders have to be involved in contingency planning for further influenza outbreaks.
- **Regional collaboration is essential.** Attention should be given to support the integration of the country into a regional and global framework for the control of pandemic influenza, and more broadly of all transboundary animal diseases and other emerging infectious diseases, to increase cost-effectiveness and ensure the harmonization of activities and responses. Coordination with regional bodies such as ACMECS, MBDS, ASEAN and Asia-Pacific Economic Cooperation (APEC) should be enhanced.