Regional situation: Human cases and outbreaks of avian influenza in poultry continue to be reported in Indonesia.

WHO has outlined five strategic elements to address the problem of avian influenza (AI).

Key issues:
- Multisectoral planning and implementation is vital
- Early detection is key to an effective response; hence training in surveillance and clinical aspects of AI starting at the grass roots level is essential
- Countries need to engage in voluntary compliance of International Health Regulations (IHR) 2005 and assess where they are in terms of core capacity requirements
- The Asia Pacific Strategy for Emerging Diseases (APSED) is a key framework for in-country and inter country collaboration to tackle emerging disease. This may also be used as a vehicle for implementing IHR 2005

This paper is presented to the Health Ministers for their review to highlight the importance of multisectoral, in-country and inter country collaboration in tackling the threat of AI and other emerging diseases as well as the need for voluntary compliance with IHR 2005 and the reprogramming of activities at country level in order to facilitate implementation of the national influenza pandemic preparedness plans (NIPPPs)
Current avian influenza situation

1. The spread of avian influenza among poultry across the globe has been rapid, with H5N1 outbreaks in birds being reported from 54 countries. Over 200 million birds have been culled. A total of 229 human cases and 131 deaths have been reported from 10 countries worldwide. Two of the 11 member countries in the Region - Indonesia and Thailand - have reported human cases since 2003. In Thailand, the last reported case developed symptoms on 25 November 2005, which brought the total number of cases in the country to 22 of which 14 proved fatal. Indonesia continues to report human cases across the country. A total of 52 cases have been reported of which 40 were fatal. Thailand and Indonesia account for approximately one third of the total global human cases.

2. Outbreaks of H5N1 in poultry have been reported from India, Indonesia, Myanmar and Thailand. The dates of the last reports of poultry outbreaks from the countries are as follows:
   - India - April 2006.
   - Indonesia continues to report H5N1 infection in poultry.

WHO strategies for Pandemic Preparedness Planning

3. WHO has outlined five strategic elements for tackling avian influenza and they are:
   (a) Reduce human exposure to the H5N1 virus;
   (b) Strengthen the early warning system;
   (c) Intensify rapid containment operations;
   (d) Build capacity to cope with a pandemic; and
   (e) Coordinate global scientific research and development.

4. The WHO Regional Office for South East Asia has been actively engaged in working with member countries to assist them in their preparedness and planning for a potential pandemic. The activities undertaken and planned are as follows:

5. Technical support was provided to member countries in the preparation of National Influenza Pandemic Preparedness Plans (NIPPPs). All 11 member countries in the Region now have draft plans and four have been approved by their respective governments for placing on the country WHO websites. Thailand’s plan has already been posted on the website. The following documents were developed and published to support countries in plan development:
   - Step-by-Step approach for preparing National Pandemic Plans.
6. A meeting of WHO country focal points and senior level government officials on avian influenza was organized in November 2005 in Bangkok to assess the current situation in terms of planning and discuss the practical issues concerning implementation of NIPPPs.

7. Proposals for supporting countries with the implementation of their plans in the areas of outbreak investigation which will include field epidemiology, rapid containment, clinical management and infection control and risk communication have been developed. Training materials are being developed and training programmes organized in these areas. Strengthening capacity in these areas will equip countries to deal with any emerging or re-emerging infectious disease and also contribute to the countries’ core capacity requirements for implementing IHR 2005. The Regional Office will follow up on assessment of in-country capacity for implementation of the national plans. It is in the process of finalizing a step-by-step guide for conducting simulation exercises to test countries’ preparedness for a pandemic.

8. India, Indonesia and Myanmar were supported in their outbreak investigation and response efforts by deploying teams to work with local teams. Technical support was also provided in the form of guidelines as well as supplies of personal protective equipment (PPE) and oseltamivir.

9. The Village Health Volunteer scheme which utilizes skills of volunteers in public health activities such as surveillance, in operation in Thailand has been studied in detail and the Regional Office will share the process across the Region for countries wishing to adopt/adapt this scheme.

10. In terms of laboratory support, training in polymerase chain reaction (PCR) laboratory techniques was organized and diagnostic supplies and reagents provided to member countries on request. Standard operating procedures for transport of specimens have also been developed and shared.

11. Member countries have been encouraged and supported to establish a stockpile of PPE for health care workers, laboratory personnel and their animal health workers as part of multisectoral planning. A stockpile of PPE is also held at the Regional Office which may be accessed by member countries in the Region in an effort to minimize the spread of infection, thereby ensuring rapid containment of the virus.

12. The following documents have been produced to assist countries in the area of stockpiling of oseltamivir and for assessing capacity for regional production of antivirals and vaccine:

   - Guidelines on managing a stockpile of oseltamivir.
   - Assessment of regional capacity for antiviral production.
   - Assessment of regional capacity in influenza vaccine development.

13. Some Member countries have been supported in their efforts to stockpile oseltamivir and an informal meeting on the regional production of oseltamivir was held in the Regional Office on 30 and 31 March 2006. There was an exchange of information between current and potential manufacturers in the Region and with Ministry of Health representatives and WHO staff about production capacity, ability to upscale production, proposed prices and other pertinent issues such as intellectual property rights. A meeting of vaccine
manufacturers focusing on the capacity for seasonal influenza vaccine production in the Region was also organized by the Regional Office in June 2006.

14. Information material for the public, poultry workers and policy-makers on ways to reduce human infection from infected birds has been developed. Some of these are:

- Preventing Bird Flu: Some Questions and Answers.
- Bird Flu: What you need to do and know.
- Preventing Bird Flu: Precautions poultry farm workers should use.
- Public Health Interventions for Prevention and Control of Avian Influenza.

15. These were translated into local languages for wider dissemination and to create awareness in countries experiencing outbreaks of AI in poultry. Regular web updates on the current AI situation are posted, in addition to a regional weekly outbreak update which is disseminated to selected recipients detailing outbreaks and rumours within the Region.

16. Research is considered a priority area as there are many unanswered questions about the epidemiology, including risk factors of the disease. There are also gaps in research in the area of antivirals and vaccines. A bibliography of articles published on AI has been published and is a useful reference which also highlights further gaps in research. The Regional Office also actively participated in the first two meetings of the Asian Research Partnership on Avian Influenza in December 2005 and April 2006. Indonesia and Thailand are currently members of this partnership which has prioritized six areas for research.

17. In terms of antivirals and vaccines, a number of research gaps including the need for more information on optimal dose and frequency of oseltamivir have been highlighted. In addition, countries have also been advised to promptly submit virus samples to reference laboratories in order to facilitate the availability of a suitable pandemic strain vaccine.

18. The Regional Office for South-East Asia in collaboration with the Regional Office for the Western Pacific negotiated funds from the Asian Development Bank. The Regional Office is utilizing these funds to provide technical support to countries in the Region and, to this end, an epidemiologist and laboratory specialist are in place while efforts are continuing to fill other vacant positions such as a veterinarian and communications officer. Efforts to mobilize resources are continuing and the Regional Office has held discussions with several donors and helped in developing proposals to support the implementation of activities outlined in the Regional Pandemic Preparedness Plan. Following the outbreaks of AI among poultry in India, a mission briefing was organized which generated considerable interest among donors.

**Lessons learnt**

(a) Multisectoral coordination, especially with the animal health sector is very important in planning and implementation at country level and the success of such collaboration has been demonstrated in some countries of the Region in their efforts to control H5N1.
(b) Early detection is key to minimizing morbidity and mortality as patients may be given antivirals within the 48-hour window period and steps taken to minimize spread.

(c) Containment planning will need commitment at the highest level as the police and the military may be required to assist the health sector with rapid containment measures.

(d) Preparation for a pandemic will also help manage other emerging diseases as the national systems and capacity are being strengthened.

(e) Health promotion messages to the public and health care workers are needed, including those at the most peripheral of levels.

(f) Infection control measures need strengthening in order to minimize transmission of the infection from poultry to humans and subsequently from human to human.

Issues for consideration

(a) Member countries need to continue to engage in multisectoral collaboration and coordination in the revision and implementation of NIPPPs

(b) Member countries must immediately comply, on a voluntary basis, with IHR 2005 and assess their core capacity requirements; the Regional Office is assisting in this process.

(c) The Asia Pacific Strategy for Emerging Diseases (APSED) will be used as a tool to strengthen capacity within and between countries and fulfil the requirements of IHR 2005; a bi-regional meeting is proposed for later this year, preceded by a Technical Advisory Group meeting to discuss the APSED in July 2006 in Manila.

(d) Member countries need to implement and test their plans through simulation exercises; an exercise development guide is under development.

(e) Resource mobilization efforts need to continue and member countries should also engage in resource mobilization to support delivery of their plans.

Conclusion

19. It is likely that a pandemic virus will emerge from the Asia Pacific region given the continued H5N1 outbreaks in poultry and the close proximity of humans and poultry in the region. Every country is therefore at risk and should be prepared to deal with a potential pandemic.

20. Countries in the South-East Asia Region have made significant progress in terms of developing multisectoral NIPPPs. However, the challenge lies in the implementation of the plans. Implementation, in turn, relies on resources, both human and financial within countries. The Regional Office is providing technical support to member countries to strengthen capacity in the areas of field epidemiology, laboratory support, clinical management and infection control and risk communication. However, this must be supported by multisectoral collaboration, especially between the animal and human health sectors within countries. It is essential to build our own infrastructure despite limited financial resources and therefore it may be necessary to re-programme activities at country level in
order to achieve this. Countries should immediately engage in voluntary compliance with IHR 2005 and consider the Asia Pacific Strategy for Emerging Diseases as a tool for intercountry collaboration and for implementing IHR 2005 in order to tackle the threat of a pandemic as well as other emerging diseases.

References


Fifty-Ninth World Health Assembly WHA 59.2 Agenda Item 11.1 26 May 2006. Application of the International Health Regulations 2005