Asia-Pacific
Economic Cooperation

Implementation of the APEC Action Plan on Prevention and Response to Avian and Influenza Pandemics: Progress Review and Building Capacity for Future Work

APEC Health Task Force

June 2007

Asia-Pacific
Economic Cooperation

APEC WORKSHOP

Implementation of the APEC Action Plan on Prevention and Response to Avian and Influenza Pandemics: Progress Review and Building Capacity for Future Work

Ha Noi, Viet Nam
7 – 8 May 2007

Canada, China, Indonesia, Peru, United States, Viet Nam

APEC Health Task Force

June 2007

HTF01 2007 Project

Implementation of the APEC Action Plan on Prevention and Response to Avian and Influenza Pandemics: Progress Review and Building Capacity for Future Work

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APEC WORKSHOP

IMPLEMENTATION OF THE APEC ACTION PLAN ON PREVENTION AND RESPONSE TO AVIAN AND INFLUENZA PANDEMICS: PROGRESS REVIEW AND BUILDING CAPACITY FOR FUTURE WORK

7 – 8 May 2007
Ha Noi, Viet Nam

AGENDA

Day 1 – Monday, 7 May 2007

08:30 – 09:00	**Registration**	
09:00 – 09:25	**Opening Session**	*Moderator: Mr. Truong Trieu Duong, Acting Director General, Department of Multilateral Economic Cooperation, MOFA*
09:00 – 09:10	**Opening Remarks by H.E. Le Cong Phung, First Deputy Minister of Foreign Affairs of Viet Nam**	
09:10 – 09:25	**Remarks by Madame Bersabel Ephrem Chair of APEC Health Task Force**	
09:25 – 09:30	**5-minute break**	
09:30 – 10:00	**Session I: Reviewing the implementation of the APEC Action Plan** Economies' presentations (*5-7 minutes each*) *(As agreed at the HTF 1 - 2007, on 6 April, the HTF Chair requested each economy to develop a 3-page report on their implementation of the Action Plan. The reports will provide inputs for HTF's report to SOM III)* *The morning session is for economies to present their progress in implementing the Action Plan*	*Chaired by Mr. Truong Trieu Duong, Acting Director General, DMEC, MOFA*
10:00 – 10:15	**Coffee Break**	
10:15 – 12:00	**Reviewing the implementation of the APEC Action Plan** Economies' presentations (*continued*) Q&A	*Chaired by Mr. Truong Trieu Duong, Acting Director General, DMEC, MOFA*

12:00 – 13:30	**Buffet Lunch** *At Le Mayeur Restaurant, Ha Noi Horison Hotel*	
13:30 – 15:00	**Session II: Achievements and obstacles in implementing the Action Plan** - Implementing the APEC Action Plan – Hong Kong, China experience *By Dr. Ronald LAM, Department of Health – Hong Kong, China* - Challeges and difficulties faced by member economies in implementing the Action Plan *By Dr. Erna Tresnaningsih Suharsa, Director for Zoonosis Disease Control, Directorate General of Disease Control and Environmental Health, Ministry of Health, Indonesia* - Lessons learned review: Response to the Avian Influenza Epidemics in Viet Nam *By Mr. Do Huu Dzung, DVM, MPhil., Epidemiologist, Department of Animal Health, Viet Nam*	*Chaired by Dr. Michael Iademarco, HHS Health Attache, US Embassy, Hanoi*
15:00 – 15:15	**Coffee Break**	
15:00 – 17:00	- PAHI: Partnership for Avian and Human Influenza, Viet Nam *By Mr. David Payne, Partnerships and Coordination Specialist, UNDP/PAHI* **Discussion**	*Chaired by Dr. Michael Iademarco, HHS Health Attache, US Embassy, Hanoi*
18:30 – 20:30	**Welcome Dinner** *At Wild Lotus Restaurant, 55 A Nguyen Du Str.* *Buses depart from Hanoi Horison Hotel at 18:15*	*Hosted by Mr. Truong Trieu Duong Acting Director General, DMEC, MOFA*

<u>Day 2 – Tuesday, 8 May 2007</u>

09:00 – 10:15	**Session III: Future Actions to enhance Avian and Influenza preparedness and required capacity building** - Current situation of Avian Influenza and Pandemic Preparedness in the region and	*Chaired by Dr. Shichuo Li, Vice Chair of the HTF*

	recommendations for APEC *By Dr. Hans Troedsson - WHO Representative in Viet Nam* - UN system views and approach for combating Avian and Human Pandemic Influenza threats *By Mr. Koji Nabae, Avian and Human Influenza Regional Coordinating Officer, United Nations System Influenza Coordination (UNSIC) Asia-Pacific Regional Hub* - Priorities areas of the Action Plan that APEC needs to focus on *By Mme Bersabel Ephrem, Canada*	
10:15 – 10:30	**Coffee Break**	
10:30 – 11:45	- Enhancing Avian and Influenza Pandemics preparedness and response- future actions for APEC *By Dr. Michael Iademarco, HHS Health Attache, US Embassy, Hanoi* - Capacity building to enhance Avian and Influenza Pandemics preparedness in APEC *By Dr. Huang Baoxu, China* **Discussion**	*Chaired by Dr. Shichuo Li, Vice Chair of the HTF*
12:00 – 13:30	**Buffet Lunch** *At Le Mayeur Restaurant, Ha Noi Horison Hotel*	
13:30 – 15:00	**Session IV: HTF's Progress report of Action Plan to the Ministers**	*Chaired by Mme Bersabel Ephrem, Chair of the HTF*
15:00 – 15:15	**Coffee Break**	
15:15 – 15:30	Briefing on the preparations for Health Ministerial Meeting *(By Australia)*	
15:30 – 16:00	*Concluding remarks by Mr. Truong Trieu Duong Acting Director General, DMEC, MOFA*	

Opening Remarks by H.E. Le Cong Phung,
First Deputy Minister for Foreign Affairs of Viet Nam

Distinguished delegates,
Ladies and Gentlemen,

At the outset, on behalf of the Ministry of Foreign Affairs, the Ministry of Health and the Ministry of Agriculture and Rural Development of Viet Nam, I would like to warmly welcome all of you to the APEC Workshop on Implementation of APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics: Progress Review and Building Capacity for Future Work**.** I would also like to take this opportunity to express our most sincere thanks to Madam Bersabel Ephrem, Chair of the APEC Health Task Force, all speakers, guests and participants from APEC member economies and relevant international organizations who have traveled thousands of miles to Ha Noi to attend this important Workshop. Your favourable response, your presence and valuable contributions will bring about fruitful outcomes for our two-day Workshop.

As you might recall, last May, in Da Nang, Viet Nam successfully hosted the first APEC Health Ministers Meeting on Avian and Influenza which adopted the Action Plan on the Prevention and Response to Avian and Influenza Pandemics. This had demonstrated strong commitments by all APEC members to address the global threats of avian and influenza pandemics. Since last year, we have seen that much work has been done individually and cooperatively within the APEC region to implement the endorsed Action Plan.

In order to review all individual work and joint efforts made by APEC member economies and identify capacity building for APEC's future work , Viet Nam proposed to organize a workshop under the theme "Implementation of APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics: Progress Review and Building Capacity for Future Work". We are of the view that this workshop will represent a good opportunity for APEC member economies to share information and experiences on the implementation of the Action Plan, to identify capacity building needs, to discuss priority areas and future capacity building activities to ensure the effective and successful implementation of the Action Plan. This workshop is also shortly organized before the 2007 APEC Health Ministerial Meeting to be held next June in Australia. The Ministerial Meeting will make assessment and provide guidance to further enhance APEC cooperation on avian and influenza pandemics. I am hopeful that after two hard working days, we could come out with valuable recommendations to submit to the upcoming Ministerial Meeting.

Ladies and Gentlemen,

Avian and influenza pandemics remain one of the major threats to the socio-economic stability and growth of our region and the world as a whole. It is clear that no matter how hard we try to achieve our core task of trade and investment liberalization and facilitation, little progress would be achieved if nothing is done to prevent serious and infectious diseases such as the avian and influenza pandemics. I understand that APEC's efforts in dealing with the emerging infectious diseases started many years

ago. And I am also proud that Viet Nam has been being an active contributor in this process.

While pandemic preparedness is an important issue to be dealt with, we should be aware of the importance of international cooperation in responding to these threats. It is my confidence that the participation of representatives from international organizations will help to create more channels for further cooperation between APEC and these organizations. Apart from that, given the divergent economic conditions in APEC, more focus should be given to capacity building, especially for the developing member economies so as to better response to avian and influenza pandemics.

Finally, I would like to thank all APEC member economies and the Secretariat for providing support for this project. My sincere thanks also go to our co-hosts for their active cooperation in preparing for this Workshop. I am looking forward to our fruitful and insightful discussion in the next two days.

May I wish all of you, even having been to Ha Noi during the Viet Nam year or being in Ha Noi for the first time, have pleasant stay and enjoy the traditional culture and the charm and beauty of our capital city.

I wish you good health and great success.

Thank you very much for your attention./.

Remarks by Ms Bersabel Ephrem

Chair of APEC Health Task Force

Good morning! As Chair of the APEC Health Task Force, I am pleased to be here to help open this important workshop. I am heartened to see the room filled with experts on this subject area as we undertake this important work for the region.

I would also personally like to thank Viet Nam for convening this meeting and for being so flexible with the dates. You have welcomed us all again to your warm and hospitable country to discuss an issue that is so important to us all.

I'd like to spend a few minutes speaking about the recent and upcoming work of the HTF on implementing the Action Plan. I'd also like to share some of my thoughts on our work and future.

Most of you would be familiar with the three priority areas of the APEC Health Task Force (HTF):

> (1) Enhancing avian and human pandemic influenza preparedness and response; (2) Fighting against HIV/AIDS in the APEC region; and
> (3) Improving health outcomes through advances in health information technology.

The HTF continues to be responsive to APEC Leaders and Ministers. At the APEC Summit last November, Ministers commended the HTF on the valuable work undertaken in 2006 in continued response to the objectives set at the APEC Ministerial and Leaders Meetings of 2005.

At the Summit, Ministers welcomed the outcome of the APEC Ministerial Meeting on Avian and Influenza Pandemics and strongly encouraged all APEC economies to work individually and cooperatively to implement the APEC Action Plan on Prevention and Response to Avian and Influenza Pandemics to prevent, prepare for and mitigate the impact of avian influenza and a possible influenza pandemic.

Indeed, 2006 was a busy year for the HTF as we worked to address the main directives from the APEC Leader's Initiative on Preparing for and Mitigating an Influenza Pandemic. The HTF sponsored activities and progressed to meet nearly all of the collective goals through activities such as:

- the APEC Symposium on Emerging Infectious Diseases in Beijing in April 2006, which reinforced the common objectives of preparedness and prevention of emerging infectious diseases

- The Pandemic Risk Communications Workshop in May 2006, which highlighted the importance and understanding of enhancing regional coordination in risk communication and built risk communication capacity among APEC economies.

- The APEC HTF Seminar on Assessing Pandemic Preparedness Plans, in August 2006 which provided a framework for assisting developing

economies in making decisions on how to assess their domestic pandemic preparedness plans.

- And in September last year, the Symposium on Functioning Economies in Times of Pandemic which will assist APEC economies to maintain economic activity and reduce business disruption in the event of a pandemic and the APEC Capacity Building Seminar on Avian Influenza: Preventing AI at its Source and a Dialogue on Indemnity which increased information sharing and collaboration amongst animal and human health Senior Officials to minimize animal disease outbreaks and therefore human infections.

The HTF has committed to work in the most collaborative fashion, and has underscored the importance of integrated planning and a coordinated approach involving the widest spectrum of actors as possible to address both the animal and human health dimensions of avian influenza. Our goals cannot be met without all APEC fora and economies working cooperatively to achieve these goals. We therefore regularly meet with:

- Task Force on Emergency Preparedness
- Life Science Innovation Forum
- Agriculture Technical Cooperation Working Group
- SME Working Group
- APEC Business Advisory Council (ABAC)

This year, the HTF's workplan is just as ambitious as the last one as we continue our collective work on AI/PI preparedness. This workshop is just the beginning of our work.

2007 is a pivotal year for the HTF as our second two-year mandate comes to a close in December of this year. The HTF members worked closely and collaboratively to develop our best advice to APEC on the future of global health security. I am pleased to say that at the SOMII meeting in April, Senior Officials agreed to the HTF recommendation that we transform into a Working Group in 2008. The work that we have begun here will continue in recognition of what we have been able to demonstrate as the value-added for APEC in addressing health security issues.

And now for a look to the future. The threat posed by Highly Pathogenic Avian Influenza and a potential human influenza pandemic has stimulated extensive international cooperation and collaboration to increase global preparedness and plan an appropriate response. Controlling the global occurrence of avian influenza as well as international pandemic preparedness planning are key elements of our global health security, economic security and development agendas.

APEC and the HTF have been recognised as a key regional partner in moving this work forward. Not only have we become a model for collective action in other regions, but we are also one of the first groups to convene such a meeting of experts to carefully evaluate what we have done; frankly discuss our achievements and obstacles;

and decide what we need to do in the future. What we develop over the next two days will be a major contribution not only to our region, but will assist other international organisations in their work. We will need to be frank and open with each other. We will need to work together in identifying the gaps and practical means to fill them. We will be setting our work agenda out for the next few years through the Health Working Group. I personally am very excited to be part of this work and I look forward to listening and learning.

Thank you.

Session I:

Reviewing the Implementation of the APEC Action Plan

Australia’s Progress Report

Australian Government
Department of Health and Ageing

APEC Action Plan

Prevention and Response to Avian and Influenza Pandemics

Australia

Ms Mary Murnane
Deputy Secretary
Department of Health and Ageing

Australian Government
Department of Health and Ageing

Implementing the Action Plan

Australian Government
Department of Health and Ageing

Business Continuity

- Business continuity guide
- Small business kit
- Infrastructure Assurance Advisory Groups in:
  - Banking and Finance
  - Emergency services
  - Energy
  - Food supply
  - Health care
  - Telecommunications
  - Transport
  - Sanitation and Garbage services
  - Safe water supply

http://www.industry.gov.au

Australian Government
Department of Health and Ageing

Establishing best practices and common approaches to risk communication

Health Communication Strategy

- General Public
- Businesses
- Key health stakeholders

Current Education Materials

- Bird Flu Brochure
- Indigenous posters
- Information Kit for general practitioners and health care workers
- DVD on Infection Control "Prepared and Protected"
- Fact sheet on Infection Control

Developing ready to use material



Education Material

Australian Government
Department of Health and Ageing

Mitigating negative effects of avian influenza on agriculture and trade

AUSVETPLAN outlines how Australia plans to eradicate Highly Pathogenic Avian Influenza (HPAI) should it occur in birds.

Strategies include:

- Stamping out
- pre-emptive slaughter of birds
- quarantine and movement controls
- decontamination of facilities in declared areas
- tracing and surveillance
- Public awareness campaign
- Personnel engaged in eradication
  - Vaccinated, antivirals and PPE

Quarantine officers at ports and international mail facilities on high alert for all prohibited poultry products, focusing on high risk AI countries.

Current government post-border activities include surveillance for AI, monitoring the health of wild birds, and improving biosecurity awareness.

Australian Government
Department of Health and Ageing

Strengthening regional and international cooperation

- $152 million
- Work with WHO, APEC, FAO, OIE and ASEAN
- Support by building capacity in laboratories, surveillance and epidemiology
- Near neighbours of significant risk a priority
- APEC Pandemic Response Exercise ’06

Australian Government
Department of Health and Ageing

Exercise Cumpston ‘06

- National pandemic influenza exercise
- Series of discussion exercises and drills over six month period
- Live simulation in October 2006 including border, hospital, laboratory and community-based responses




Australian Government
Department of Health and Ageing

Future Directions and Priorities

- Implement the outcomes from exercise Cumpston '06, including refinement of planning and communications
- More detailed engagement of primary care and other sectors in all planning
- Further exercises, including whole of government

Brunei Darussalam’s Progress Report

To date Brunei Darussalam has maintained its HPAI free status both in human and in poultry.

Highlights:

- The establishment of the National Committee on Pandemic Influenza in November 2005, chaired by His Royal Highness Pengiran Muda Mahkota Pengiran Muda Haji Al-Muhtadee Billah, the Crown Prince and Senior Minister at the Prime Minister's Office. This high level Committee consists of cabinet ministers of His Majesty Government. The committee had met three times.

- Vaccination of 25 % of Brunei population, especially the high risk groups, in accordance with WHO guidelines.

- Stockpiling of sufficient Tamiflu, PPEs, essential drugs and other medical equipment.

- Converting Tutong Hospital into a designated 120 bedded isolation hospital.

- Capacity building especially for laboratory and surveillance. Training and upgrading the skills of our healthcare workers and personnel from the Agriculture Department.

- Joint multi-agency exercises are carried out to assess the capabilities, preparedness and coordination of various agencies involved. So far two table top exercises and two field exercises had been conducted. More table top exercises are being planned before a full scale exercise is carried out.

Implementing the Action Plan:

Multi-sectoral cooperation and coordination on avian and pandemic influenza

- Under the National Pandemic Influenza Preparedness Committee each ministry has developed its own plan of action to address the threat of avian and human pandemic influenza. These plans are consolidated into a National Pandemic Influenza Preparedness Plan. Within the National Plan points of integration and coordination are clearly identified to ensure timely and effective actions. The issues of containment including social distancing and quarantine; mitigating possible social and security issues; and business continuity are addressed.

- Continuous monitoring and surveillance of HPAI both on the human and poultry populations are closely co-ordinated by the Ministry of Health and the Agriculture Department of the Ministry of Industry and Primary Resources, respectively.

- Rapid response and containment to stop and limit any spread of HPAI among poultry, as well as to prevent and limit human transmission of pandemic influenza is the cornerstone of our preparedness plan. Hence, early detection and reporting is important.

- Continuous sentinel syndromic influenza surveillance in health facilities and hospitals, including at borders entry points (using health declaration forms). Reports of suspected avian influenza are quickly investigated including laboratory confirmation, patients isolated and managed as per of our protocol. We had had several false alarms but they were useful to test our readiness and effectiveness.

- Continuous surveillance for HPAI among poultry and wild birds are carried out by the Agriculture Department. Apart from commercial poultry farms, small and back yard farms are registered and monitored.

Establishing best practices and common approaches to risk communications

- Integrating risk communications are included as part of national pandemic preparedness plan.

- Most of the risk communications activities presently produced are coordinated by the Ministry of Health and Agriculture Department of the Ministry of Industry and Primary resources. The public awareness programmes involve the use of television and radio, posters, leaflets, press releases, TV documentaries and road shows.

- The Agriculture Department is working closely with the poultry firms, small poultry enterprises as well as owner of back yard farms rising their awareness and information on avian influenza.

Mitigating negative effects of avian influenza on agriculture and trade

- The Ministry of Industry and Primary Resources through the Agriculture Department continuously review and update its plan of action to mitigate the negative effect of avian influenza. Among the actions taken include:
    - public awareness (through media including press releases and TV documentaries, posters / leaflets);
    - HPAI and disease surveillance (at commercial farms, backyard farms, livestock markets and pet shops);
    - capacity building (through upgrading of laboratory capacity, the use of using rapid kits and PCR kits as screening and confirmatory tool, training of laboratory personnel and training of veterinary personnel)
    - simulation exercises involving various relevant government agencies and private sector.
    - importation regulation from AI affected countries and border inspection
    - provision of compensation programs to farmers affected by HPAI.
    - maintain a stockpile of surveillance, decontamination and stamping out equipment and consumables such as PPE, disinfectants, tests kits and carbon dioxide gas cylinders.

Working with the private sector to help ensure continuity of business, trade and essential services

- Ministry of Health and the Agriculture Department works closely with the private sectors, giving advice and assistance, where necessary, in formulating business continuity plan for the businesses; and identify areas of collaboration and cooperation in the event of a pandemic influenza occurring.

Strengthening regional and international cooperation

- Participation in various forum dealing with avian and pandemic influenza, either bilateral (such as Brunei-Malaysia), multilateral (through ASEAN, APEC), regional and international (through WHO) or involving other bodies (such as FAO, OIE).

- Brunei Darussalam is committed to combat Avian Influenza outbreak by taking part in any regional and international efforts on HPAI and Human Pandemic Influenza preparedness programmes through participating in meetings, sharing of information and other collaboration.

Canada’s Progress Report

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

CANADA'S IMPLEMENTATION OF THE APEC ACTION PLAN

Dr. Felix Li
Public Health Agency of Canada

Implementation of APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics Workshop
Ha Noi, Viet Nam, May 7 2007

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

HIGHLIGHTS

- Strengthening multi-sectoral cooperation and coordination in Canada
- Establishing best practices and common approaches to risk communications
- Mitigating negative effects of avian influenza on agriculture and trade
- Ensure continuity of business, trade and essential services
- Strengthening regional and international cooperation

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

STRENTHENING MULTI-SECTOAL COOPERATION AND COORDINATION

- Mutli-sectoral cooperation and coordination – Federal/Provincial; Depts of Agriculture, Food Inspection, Border Services, Environment; Industry
- Networks for Prevention and Response - Public Health, Agriculture, Surveillance, Laboratory, Research
- Pan-Canadian influenza portal (www.influenza.gc.ca)
- Collaborate with industry to increase global influenza vaccine production capacity
- Full cooperation with WHO Influenza Surveillance Network

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

ESTABLISHING BEST PREACTICES AND COMMON APPROACHES TO RISK COMMUNICATIONS

- Risk communications – an integral part of Canadian Pandemic Preparedness Plan
- Organized Pandemic Preparedness Risk Communications Workshop in Vietnam, May 2006.
- Follow-up workshop in 2007 to focus on developing media relations skills

§ Contribution to WHO's Risk Communications Committee; development of the WHO's Outbreak Communications Guidelines; development of an international pandemic communications framework

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

MITIGATING NEGATIVE EFFECTS ON AGRICULTURE AND TRADE

- Established Canadian standards on farm bio-security (Canadian Food Inspection Agency, Agriculture and Agri-Food Canada)
- Collaborate with OIE in developing new international bio-security guidelines for the raising, handling and transporting of potentially influenza-bearing animals
- Continues to support and adhere to the OIE science-based guidelines and the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) in instances of avian influenza.

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

ENSURE CONTINUITY OF BUSINESS, TRADE AND ESSENTIAL SERVICES

- Canada Pandemic Influenza Plan – ensure provision of health services

§ Public Safety Canada – working with business associations in 10 critical infrastructure sectors to develop business continuity plans

PUBLIC HEALTH AGENCY of CANADA | AGENCE DE SANTÉ PUBLIQUE du CANADA

STRENGTHENING REGIONAL AND INTERNATIONAL COOPERATION

- Financial contribution of over $100M in global action against avian and pandemic influenza
- Financial/Technical support to international (WHO, FAO, OIE, UNSIC) and regional (WPRO, SEARO, ADB) organizations
- Support to and capacity building for APEC and SE Asian countries in avian and pandemic flu prevention/control – Vietnam, Indonesia, China, Laos, Cambodia
- Develop the North American Avian and Pandemic Influenza Plan

China’s Progress Report

The Chinese government has attached great importance to the prevention and control of avian influenza epidemics. Since the APEC ministerial meeting on Avian and Influenza Pandemics in Da Nang on 6 May, 2006, the Chinese government has actively implemented the APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics. Generally speaking, the epidemic situations of avian influenza in China have tended to decrease significantly. From 2006 to now, total 11 outbreaks in poultry and 1 of H5N1 in migratory bird have been found. Since October 2005, total 23 human H5N1 cases have been confirmed, including 14 cases of death.

I. Implementing the Action Plan

1. To develop regulations and technical guidelines.

The Ministry of Agriculture and the Ministry of Health have compiled and issued the "*National Contingency Plan for Highly Pathogenic Avian Influenza (HPAI)*", *"Technological Standards of HPA"I, "Surveillance Plan for HPAI"*, *"The Emergency Preparedness and Response Plan for Human Infection with HPAI"*, *"Surveillance Protocol for Human Infection with HPAI"*, and "*Preparedness and Contingency Plan for Influenza Pandemic by the Ministry of Health"* etc, respectively to standardize and guide the national prevention and control of avian influenza, and response to possible influenza epidemic.

2. To persist in cooperation of multiple government sectors.

The State Council has established the National Headquarters for Prevention and Control of HPAI to instruct the national prevention and control of avian influenza. The Headquarters is composed of related ministries and commissions including Ministry of Agriculture, Ministry of Health, AQSIQ, Ministry of Commerce, and Ministry of Forestry etc., and is under the overall command of Hui Liangyu, the Deputy Premier of the State Council. Through establishment of trans-departmental cooperative mechanism for prevention and control of avian influenza, various administrative and technical resources have been effectively integrated, and the abilities for quick response to and comprehensive control on AI outbreaks and other health emergencies have been greatly enhanced.

3. To further develop vaccination policies.

A compulsory vaccination policy for whole poultry in the nation have been implemented since October 2005, The poultry for export with good animal health conditions would not be vaccinated with the permission of veterinary administrative agency at provincial level if the importing country have special requirement. Immunity effects monitoring has regularly conducted to ensure immunity effects. The ability of supplying vaccines has been further strengthened; The national vaccine stockpiles system has been established with financial supports from the state finance authority.
The Ministry of Health has strengthened research and development of human avian influenza vaccines, avian epidemic vaccines, and anti-virus drugs. In addition, substance stockpiles system for prevention and control of human avian influenza as well as response to influenza epidemic has gradually established.

4. Resolute disposing epidemic emergencies.

According to related laws and rules as well as departmental regulations, whenever an outbreak of avain influenza and human infection is confirmed the contingency plans will start to implement in corresponding levels, including identifing epidemic points, epidemic zone, and threatened zone, adopting comprehensive prevention and control measures including quarantine, slaughter, disinfection, urgent and intensive vaccination, and surveillance etc., and thus control the epidemic situations at epidemic points; adopting the guidelines of early detection, report, diagnosis, disposal and treatment for human avian influenza cases, and implement medical observation on close contacts at the same time, so as to reduce and control the spreading of diseases.

5. Strengthening quarantine supervision.

Implement strict origin-area quarantine and slaughtering quarantine system for animals and animal products, develop special administration on law enforcement of quarantine supervision, and standardize the circulating order of poultry.

6. To strictly prevent the introduction of epidemic from outside China.

Compile strict frontier quarantine system, strengthen inspection and quarantine on the cargos exiting and entering the border, the articles carried by travelers, and the goods posted, and strictly forbid the exit and entry of poultry and related products from epidemic areas. Strictly strike illegal poultry and related product import activities, and further strengthen management on frontier trades, border trades, and border channels. Monitor the epidemic situations of the world HPAI in time, and implement risk analysis system for imported poultry and related products.

7. Well carrying out epidemic situation monitoring, report and publicity.

Execute escalating report system of county, prefecture, provincial and national levels for animal and human avian influenza in China. The Ministry of Agriculture has established 450 epidemic situation surveillance and report stations all over China, which form the epidemic situation monitoring and early alert network of China together with animal epidemic prevention and supervision organs of national, provincial, prefectural and county levels. The Ministry of Health detects and monitors the outbreak of human HPAI cases and influenza-like cases through unexplained pneumonia surveillance and emergency surveillance (influenza-like cases and close contacts surveillance); meanwhile, it develops training course to improve the abilities of professional personnel for detection and diagnosis of human avian influenza cases.
The Ministry of Agriculture has publicized the national animal epidemic situation monitoring and various policies and documents etc, monthly to the society through the *Official Veterinary Bulletin*, and reported the prevention and control of Chinese avian influenza as well as related progress to the international society through the documents such as the *Vaccination of Avian Influenza in China* etc. The Ministry of Health has taken charge of reporting to related departments, international organizations, related

countries and Hong Kong, China, Macao SAR and Chinese Taipei, and of issuing to the society the information on epidemic situations of human avian influenza in time.

8. To enhance people's awareness of AI prevention, develop risk communications, and create favorable atmosphere of the mass prevention and control.

The Ministry of Agriculture and the Ministry of Health have actively developed avian influenza prevention and control technological consultations; given more attention to raising the public awareness of prevention of AI and other emerging infectious diseases; organized experts to compile scientific popularization knowledge about AI and issued to each village in forms of wallpaper, and pocket book etc.; popularized scientific knowledge of prevention & control of AI to population through media such as TV, broadcasting, newspaper and Internet etc.

9. Actively developing poultry industry.

In 2005, the General Office of the State Council issued the *Opinions on Supporting the Development of Poultry Industry*, developed the principle of combined emergency supporting measures and establishment of sustained development mechanism, and supported the restorative production of poultry industry.

10. Strengthening interregional and international communications and cooperation.

1). To take part in and organize related conferences and aid projects actively. At the beginning of 2006, China organized the "Conference to fund raising for Worldwide Bird Flu Preparedness" to promote the international cooperation progress in prevention and control of AI; Dispatching personnel to attend nearly 20 regional or international conferences/workshops held by FAO, WHO, OIE, APEC and WTO; and provided prevention & control materials such as AI vaccines etc., personnel and technical assistance to Viet Nam, Azerbaijan Republic.

2). To Strengthen bilateral communication and cooperation, and develop joint prevention and control measures. China dispatched 10 person times of experts in succession to Viet Nam for providing technical assistance discussing the matters such as cooperation in producing vaccines and exporting avian influenza vaccines etc. Coordinate and arrange the exports of avian influenza vaccines to countries such as Viet Nam, Egypt and Ethiopia etc.

3). To accelerate multilateral cooperation comprehensively, and make positive contributions to the global prevention and control of AI. China Invited WHO and FAO expert groups to inspect Liaoning Province Avian Influenza Epidemic Area and related provincial level labs. The Ministry of Agriculture has provided WHO with 21 avian influenza virus strains isolated from animal bodies. The Ministry of Health has developed active cooperation in strain sharing and joint research at WHO Cooperation Center, provided 8 representative strains from human and publicized gene sequencing data in time.

4).To organize and take part in the exercises of prevention and control of human avian influenza and of response to influenza epidemic.

In November 2006, the Ministry of Health organized joint emergency exercise for emerging infectious diseases response of four areas, those were mainland China, (specially) Guangdong, Hong Kong SAR and Macao SAR. The latter three established joint action mode for urgent response to emergency public health events at the mutual intersections of the three places. The exercise inspected the abilities for information communication and joint prevention and control. In addition, China took an active part in the pandemic exercise activities initiated by other APEC member economies as Australia, Korea etc., and accumulated enough experiences for developing pandemic preparedness and response.

II. **Future direction and priorities**

(Please refer to the paper: Capacity Building to Enhance Avian and Influenza Pandemic Preparedness in China; not in detail here)

1. Continuing implement intensive/compulsory vaccination. Supervise and urge each place to develop plans for implementation of vaccination policy, standardize its procedures and perfect the archives as soon as possible to ensure the quality of vaccination. Meanwhile, strengthen supervision on vaccine quality, and improve in production and supply of vaccines.

2. Further intensify capability of monitoring and early alert. Grasp and analyze the distribution and variation of AI viruses in time through epidemic situation monitoring and epidemiological investigation, and improve abilities for early alert and predication.

3. Firmly prevent the introduction of epidemics from outside China. Further monitor and control the epidemic situations in border areas. Closely cooperate with the AQSIQ, customs and frontier defense etc., and strengthen port and non-port channel management, as well as joint defense and control in border areas.

4. Strengthen the prevention and control of AI in the markets of live poultry.

5. Strengthen the information exchange/reporting system on epidemic situations. Establish and strengthen the mutual notification mechanism of epidemic situation, and ensure the rapid, transparent and correct epidemic-situation communications among each member economy of APEC.

6. Strengthen risk communications. Compile risk communication policies for prevention and control of AI as well as for pandemic response aiming at different objects (including the public, decision-makers and professional personnel etc.), develop risk communication materials, implement health education policies, and improve comprehensive cognition.

7. Strengthen cooperation in scientific and technological research & development.

Enhance surveillance and response techniques, as well as the abilities for producing vaccines and medicines, establish epidemic vaccine stockpiles and transfer mechanism, and improve the accessibility of vaccines and antiviral drugs.

Report on the Implementation of the "APEC Action Plan on Prevention and Response to Avian and Influenza Pandemics" of China

Ministry of Health, China
Yu Hongjie

Highlights

- Attach great importance to the prevention and control of avian influenza and pandemic response
- In the mainland of China, Epidemic situations of animal and human avian influenza tended to decrease

Implementing the Action Plan

- Develop regulations and technical guidelines
  - *National Contingency Plan for HPAI*
  - *The Emergency Preparedness and Response Plan for Human HPAI and Pandemic*
- Persist in cooperation of multiple sectors
  - *Establish the National Headquarters for Prevention and Control of HPAI, under the overall command of the Deputy Premier of the State Council.*

Implementing the Action Plan

- Develop immunity policies
  - Implement compulsory immunity for the whole national poultry and develop immunity effect monitoring regularly.
- Persist in disposing sudden epidemic situations decisively
  - Including quarantine, slaughter, disinfection, emergent and strengthened immunity, and surveillance etc.

Implementing the Action Plan

- Implement strict original-area quarantine and slaughtering quarantine system for animals and animal products
- Compile strict frontier quarantine system, strike illegal poultry and related product import activities

Implementing the Action Plan

- Well carry out epidemic situation monitoring, report and publicity
  - Surveillance network both in animal and human
  - publicized the national animal and human epidemic situation timely
- Enhance people's awareness of prevention, develop risk communications
  - By mass media, leaflets, and booklets etc

Implementing the Action Plan

- Actively develop poultry industry
  - Developed the principle of combined emergency supporting measures and stable development mechanism establishment

Implementing the Action Plan

- Strengthen interregional and international communications and cooperation
  - *Take part in and organize related international conferences and aid projects actively*
  - *Strengthen bilateral communication and cooperation, and develop joint defense and control*

Implementing the Action Plan

- **Strengthen interregional and international communications and cooperation**
  - ***Accelerate multilateral cooperation comprehensively, and make positive contributions to the global prevention and control of avian influenza***
  - ***Actively organize and take part in the exercises of prevention and control of human avian influenza and of response to influenza epidemic***

Thanks for your attention

Hong Kong, China's Progress Report

APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics:

Progress in Hong Kong, China

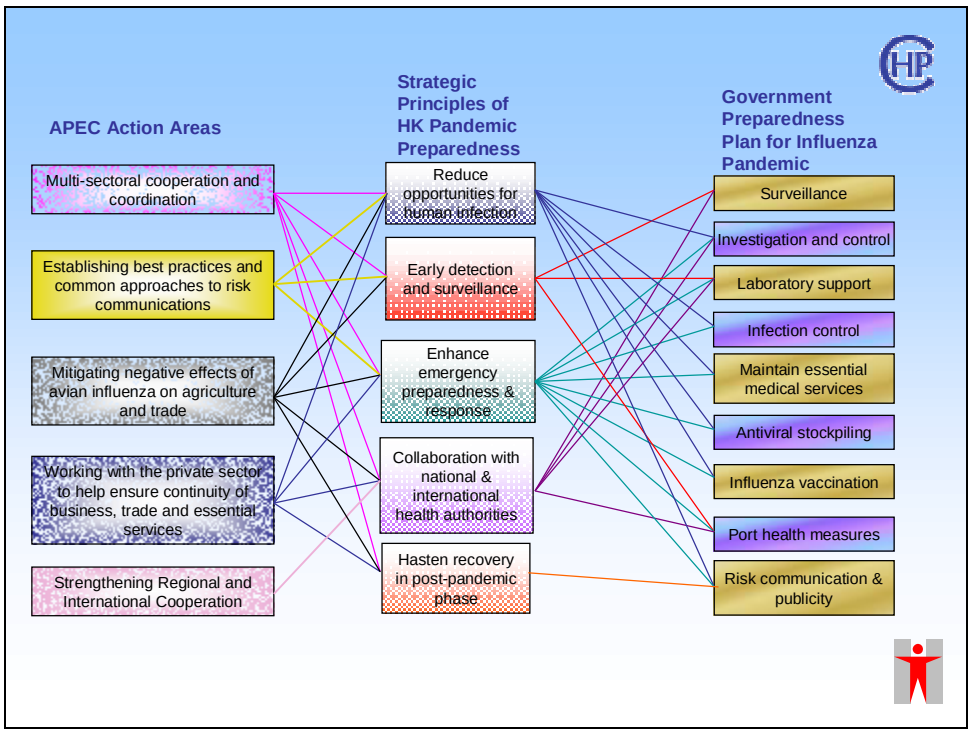
Dr Ronald Lam
Department of Health
Hong Kong, China

7-8 May 2007

Contingency planning : Preparedness Plan for Influenza Pandemic

http://www.chp.gov.hk/

2



Multi-sectoral cooperation and coordination: Surge Capacity

- Doctors
- Nurses
- Pharmacists
- Paramedical professionals
- Social Workers
- Non governmental organisations

4

Multi-sectoral cooperation and coordination: Drills & Exercises

- Drills and Exercises

  To ensure workability of our plans

  – Nov 2004: Exercise MAPLE

  – July 2005: Exercise CEDARS

  – Nov 2005: Exercise POPLAR

  – June 2006: APEC Pandemic Response Exercise

  – Sept 2006: Exercise CYPERSS

  – Nov 2006: Exercise GREAT WALL

5

Establishing best practices and common approaches to risk communications

– Risk communication Infrastructure
  - Outbreak Intelligence Centre
  - Emergency Response Centre
  - Emergency Hotline Centre
  - Risk Communication Centre

– Responsive risk communication strategies:
  - Forums, briefings to different sectors
  - dedicated website
  - electronic media

6

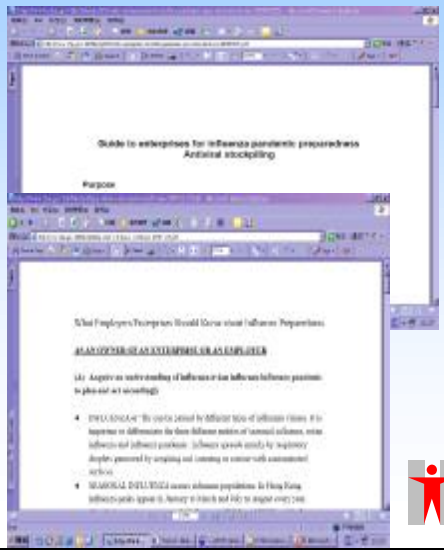
Mitigating negative effects of avian influenza on agriculture and trade

- Vaccination of chickens
- Enhanced biosecurity
- Market rest days
- Segregation measures
- Poultry workers: infection control training & guidelines
- Reduce holding capacity of live poultry farms
- Banning of backyard poultry

7

Working with the private sector to help ensure continuity of business, trade and essential services

- Maintaining essential service
  - Meetings, briefings, etc
- Guidelines on business continuity
  - Back up support for key staff, core operations
  - Stockpile PPE, antivirals
- Joint exercises



8

Strengthening Regional and International Cooperation

- WHO
- APEC
- PRC ministries
- Other health authorities

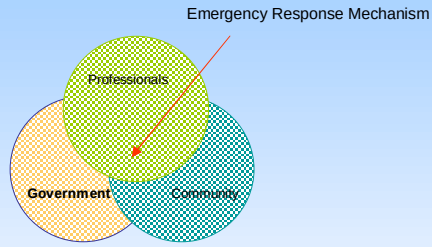
9

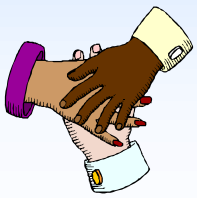
Future directions

- Constant review of pandemic preparedness plan
- Conduct exercise & drills
- Develop central slaughtering

10

- International, inter-sectoral and inter-departmental collaboration





11

Thank you

Indonesia’s Progress Report

INDONESIA

PROGRESS REPORT of IMPLEMENTATION of APEC ACTION PLAN on the PREVENTION and RESPONSE to AVIAN and INFLUENZA PANDEMICS

Hanoi,Vietnam 7-8 May 2007

INTRODUCTION

- December 2005 developed National Strategic Plan on AI Control and Influenza Pandemic Preparedness.
- National strategies on AI control :

1. Highly Pathogenic Avian Influenza (HPAI) Control in Animals
2. Management of Human Cases of AI
3. Protection of High-Risk Groups
4. Epidemiological Surveillance on Animals and Humans
5. Restructuring the Poultry Industry System
6. Risk Communication, Information and Public Awareness
7. Strengthening Supporting Laws
8. Capacity Building
9. Action Research
10. Monitoring and Evaluation.

1. MULTISECTORAL COOPERATION AND COORDINATION ON AVIAN INFLUENZA CONTROL AND INFLUENZA PANDEMIC PREPAREDNESS

- Through Presidential Regulation No.7/2006 a National Committee on AI Control and Influenza Pandemic was established in March 2006. This committee is chaired by Coordinating Minister of People Welfare, Vice chairman : Coordinating Minister of Economy, Minister of Agriculture and Minister of Health. Members : nine ministers and stake holders including NGO and private sector).Similar committees are being established at provincial and district levels.
- Strengthening regional capacity for early detection and response through integrated AI surveillance of human and animal.Integration is under taken by piggybacking existing PDS/ Participatory Disease Surveillance,PDR/ Participatory Disease Response mechanism established by MOA and FAO.

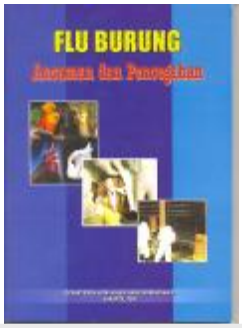
2.ESTABLISHING BEST PRACTICES AND COMMON APPROACHES TO RISK COMMUNICATION

- Conduct integrated risk communication, Information and Public Awareness by disseminating information of AI prevention and control (AIC), Influenza pandemic preparedness (IPP) through :- printed and electronic media, with single brand theme/icon of campaign, to be familiar with all component of communities, -socialization to the special group (leader, professional, religious leader etc).
- Empowering community to participate on AIC and IPP through development of alert village (desa siaga) in the whole country.
- TOT on risk communication to the spoke persons at provincial and district level.

Ministry of Communication and information

Sticker

Poster



Guide book

Ministry of Health

Brochure 1

Brochure 2

Poster

Flyer

Standing banner

Ministry of Health

Pocket book
What is AI, AI transmission prevention & AI patient handling
available in Visual driven and text

UNICEF
"Tanggap" / Response with 4 key messages
- Separate poultry from human,
- Wash hands with soap
- Cook poultry products well
- Go to health facility if AI symptom occurs

Poster : Tanggap with 4 key messages

Poster : Tanggap with 4 key messages

Flyer : Tanggap with 4 key messages

3.MITIGATING NEGATIVE IMPACTS OF AVIAN INFLUENZA IN AGRICULTURE AND TRADE

- Poultry vaccination in sector 3 and 4
- Biosecurity
- Stamping out/depopulation
- Control of poultry movements
- Separation of non commercial poultry from human settlement

4.WORKING WITH THE PRIVATE SECTOR TO HELP ENSURE CONTINUITY OF BUSINESS,TRADE AND ESSENTIAL SERVICES

- Advocacy
- Socialization, technical consultation
- Facilitate development of business continuity plan
- Simulation : Table Top Exercise

5.STRENGTHENING REGIONAL AND INTERNATIONAL COOPERATION

- Sharing information on AI control through ASEAN Plus three Emerging Infectious Diseases web site (www. ads-net.org) hosted by Indonesia.
- Regional/ASEAN anti viral (oseltamivir) stock piling in Singapore, donated by Japan.
- Sharing information with WHO through WHO web site and specimen sending to WHO CC /H5 Reference Lab.
- Joint epidemiological investigation and response on AI Cluster between Indonesia and International expert coordinated by WHO.
- PDS/PDR: collaboration with FAO, USAID, AusAID
- Capacity building in lab diagnoses for animal with Australia (BSL 3 and networking)
- Various bilateral collaboration : KfW, CIDA, Singapore, China, USA, Netherlands etc.

5.STRENGTHENING REGIONAL AND INTERNATIONAL COOPERATION (2)

- Multi center clinical research on Oseltamivir dosage (Indonesia,Thailand and Vietnam) supported by Oxford University UK, Wellcome Trust and US NIH.
- Development of rapid antigen diagnostic kit for human, with Temasek Singapore.
- Production of AI vaccine for human using Indonesia's H5N1 strain, with Baxter, USA and Japan


TERIMA KASIH, SYUKRON
THANK YOU VERY MUCH

Japan’s Progress Report

HIGHLIGHTS

(*provide examples of those initiatives that have advanced your planning and preparedness efforts*)

Implementing the Action Plan: (*provide input as indicated in the presentation at the HTF meeting*)

1. Multi-sectoral cooperation and coordination on avian and pandemic influenza

(1) Enhance regional capacity for early detection, diagnosis and response by increasing cooperation between animal and human health laboratory and surveillance networks;

- Japan has strengthened the collaboration and taken appropriate measures and surveillance on outbreak of avian influenza in birds among the ministries concerned such as those of Agriculture, Forestry and fisheries, Health, Labor and Welfare, and Environment.

- In line with "the Biosecurity Standards of Husbandry Practices on Highly Pathogenic Avian Influenza" according to the Domestic Animal Infectious Disease Control Law, livestock hygienic centers are supposed to inform both livestock branch and public health branch when any suspect case is detected.

(2) Increase the prompt reporting of avian and human cases and the sharing of biological specimens among bilateral and international veterinary and public health networks, consistent with international rules and established practices;

- Japan has established the system to report the avian and pandemic potential influenza cases to WHO promptly in accordance with IHR (International Health Regulation) and, also to the OIE immediately after they are determined as notifiable avian influenza according to the OIE Terrestrial Code.

(3) Foster through joint training, integrated investigation, quarantine and control of avian and human cases;

- As a joint training across the ministries and local governments, the Central Government and Prefectural Governments have conducted desk-top and functional simulation exercises for HPAI preparedness to test the communication and response among the ministries concerned and local governments. Japan is planning to conduct further training for pandemic influenza response under various conditions.

(4) Promote public-private partnership; and encourage the business sector to participate in and play a vigorous role in the prevention and control of avian influenza and preparedness for pandemic influenza;

- Japanese government regularly holds a meeting with business sector represented by ABAC and exchange information and views on various issues including avian influenza and pandemics.

(5) Support efforts to monitor the H5N1 virus and to conduct relevant epidemiological studies, biomedical research for the development and production of vaccines and therapeutic drugs, and, to promote greater access to medicines in times of a pandemic;

- After the development of "Pandemic Influenza Preparedness Action Plan", the Government of Japan has been promoting the establishment of guidelines including those for epidemiological studies and for the usage of vaccines and antivirals, enhancement of border control measures, stockpiling of antivirals , and vaccine development.

- In May 2006, Japan assisted in the stockpiling of 500 thousand courses of antivirals and provided personal protection equipment for 700 thousand people to enable a timely response in the event of an outbreak of pandemic influenza in ASEAN countries ($46.8 million in total). In April 2007, Japan, in cooperation with WHO Western Pacific Region Office (WPRO), supported a simulation exercise for rapid containment of outbreaks with pandemic potential that encompassed the utilization of the stockpile.

- Japan has extended grant aid up to 891 million yen for improvement of safety laboratory for avian flu virus detection in Viet Nam in September 2006.

- Japan is supporting capacity building through dispatching Japanese experts in fields such as early detection, diagnosis, and research for avian flu.

(6) Work with the FAO, the OIE, and the WHO to coordinate the development and implementation of practical, science-based biosecurity guidelines among economies, as appropriate.

- Japan contributes to OIE and FAO for capacity building in areas of national veterinary services, notification system, and contingency plan against avian influenza.

2. Establishing best practices and common approaches to risk communications

(1) Integrate risk communications as part of domestic and regional pandemic preparedness planning;

- Based on the 'Guideline on Risk Communication' made by the advisory committee regarding pandemic influenza in March2007, both national and local governments are preparing the risk communication strategies.

(2) Contribute to the development of protocols for efficient and transparent information sharing among economies and international organizations in support of the International Health Regulations (IHRs) and recognizing OIE Codes;

- An avian influenza case is reported to the OIE immediately after it is determined as notifiable avian influenza according to the OIE Terrestrial Code.

- The government of Japan has been contributing to the development of protocols for efficient and transparent information sharing among economies and international organizations in support of the International Health Regulations (IHRs).

(3) Develop effective partnerships with the media and other key stakeholders for the exchange and dissemination of accurate and timely information that encourages appropriate public health and animal husbandry practices by individuals and communities to protect against infection;

- Japan, in cooperation with UNICEF, is supporting public awareness campaigns encouraging children and families in high-risk areas to change behavior patterns that put them at risk of infection, among the APEC economies, in China, Indonesia, Papua New Guinea, Philippines, Thailand, and Viet Nam. ($9.3 million)

- In response to AI outbreaks including in foreign countries/zones, Central Government issues Notice for AI preparedness to Prefectural Governments. Prefectural Governments shall convey the Notice to any related persons/agencies such as farmers, agricultural agencies, relating industries. Central Government (the MAFF) also provides several information regarding avian influenza on its website. (*A)

- Japanese government has been providing information to the media by the spokesperson at regular press conference and to the public through the website. Based on the 'Guideline on Risk Communication' made by the advisory committee regarding pandemic influenza in March2007, both national and local government are preparing the risk communication strategies.

(4) Support joint communication efforts with public and private sectors in at-risk economies;

- The same as (*A).

- We have been providing information about avian and pandemic influenza to the public and private sectors by websites, guidelines, lectures and so on.

(5) Support the development of regionally-based projects on risk communications, including training programs, to determine locally appropriate risk communications approaches;

- Japan contributes to OIE and FAO for capacity building in areas of national veterinary services, notification system, and contingency plan against avian influenza.

Japan conducted HTF Capacity Building Seminar on preventing Avian Influenza last September.

- Based on the 'Guideline on Risk Communication' made by the advisory committee regarding pandemic influenza in March2007, both national and local governments are preparing the risk communication strategies.

(6) Coordinate with appropriate UN agencies, as applicable, to ensure harmonization of messaging and activities.

- The government of Japan has been collaborating with the UN agencies such as WHO, UNICEF and UNSIC to ensure harmonization of prompt messaging and actions.

3. Mitigating negative effects of avian influenza on agriculture and trade

(1) Call for appropriate reform of those commercial poultry production systems with low to minimal biosecurity (e.g. live bird markets) to reduce the incidence of infection;

- Any poultry farms are requested to comply with "Biosecurity standards of husbandry practices on highly pathogenic avian influenza" according to Domestic Animal Infectious Disease Control Law. (*B)

(2) Promote the development of disease-free zones consistent with international standards;

l The same as (*B)

l When an HPAI case occurs in Japan, Japan implements stamping-out as primary policy for regaining the OIE status of NAI free country.

(3) Establish incentives to promote higher levels of biosecurity for transition poultry farming;

l The same as (*B)

l Central Government provides monetary support for improvement of capacity building against avian influenza in local areas.

(4) Promote adequate systems in each economy to encourage timely and complete reporting of disease and implementation of appropriate disease control measures;

l Desk-top exercises etc. for HPAI preparedness have been conducted by Central Government and Prefectural Government.

l The same as (*A)

(5) Share reports on domestic measures to mitigate the negative effects of avian influenza to enhance efforts to control and interrupt transmission of H5N1 in poultry;

l The same as (*A)

(6) Implement tested interventions (e.g., surveillance, culling, and confirmation with international organizations such as the WHO , FAO and OIE) to reduce the burden of infection in poultry;

l When an HPAI case occurs in Japan, Japan implements stamping-out as primary policy for regaining the OIE status of NAI free country. Japan conducts several measures on poultry including early warning systems based on the OIE guidelines.

(7) Carefully evaluate, document, and widely disseminate findings from these interventions, as well as from pilot interventions;

l On occurrence of HPAI in Japan, Japan forms epidemiological investigation team consisted of experts and compiles/publishes the investigation report.

(8) Encourage the coordination of business resumption protocols and trade and travel management practices that are based on the best available science, and are in accordance with recommendations from the relevant international standard-setting bodies and meet the WTO obligations.

l We always gather scientific knowledge from researchers and authorities concerned and provide appropriate information as needed thorough the media including the website.

4. Working with the private sector to help ensure continuity of business, trade and essential services

(1) Welcome and support APEC Business Advisory Council's (ABAC) work in industry and business emergency planning and preparedness;

l Japanese government regularly holds a meeting with ABAC and exchange views on various issues including industry and business emergency planning and preparedness for Avian and Influenza Pandemics.

(2) Urge that the public, private, and non-governmental sectors work cooperatively in ensuring that the continuity of business and essential services are part of domestic preparedness plans; (Pending)

(3) Support the development of information exchange on management of travelers to increase transparency and minimize risk to trade and travel;(Pending)

(4) Continue to support the development of protocols to facilitate the continuity of business (with particular attention paid to the needs of small and medium size enterprises and micro-enterprises), essential services, and trade during a pandemic; (Pending)

(5) Urge the APEC business community to take into consideration the highly interconnected nature of the APEC economies and the complexity of global trade when developing business continuity and economic impact plans. (Pending)

5. Strengthening regional and international cooperation

(1) Share information on planned activities and the results of initiatives undertaken in order to draw lessons learned from the experiences in addressing the problem;

l Japan appropriately disseminates necessary and useful information on planned activities and the results of initiatives in various ways including internet. One of the initiatives which Japan has been implementing in HTF is a 'Compilation Report on Domestic Avian Influenza Measures of APEC member economies'. It is expected to contribute to sharing information and experiences for preventing AI among APEC member economies.

(2) Pursue consistent approaches with international organizations and support existing global coordinating mechanisms;

l In December 2006, Japan pledged additional $67 million at the International Ministerial Conference on Avian and Human Influenza in Bamako on top of $155 million pledged at the Beijing conference in January of the same year. Through these commitments, Japan provided support to coordinated efforts by international organizations such as WHO, UNICEF, UNHCR, WFP, IOM, and OCHA in fighting against avian and pandemic influenza, totally approximately $39 million.

(3) Encourage facilitation of entry, such as pre-authorized visas and customs, of WHO rapid response teams requested by the host economy, and their necessary equipment to pandemic outbreak sites;

l When the WHO rapid response teams need to enter Japan, we are prepared to give full facilities regarding the issuance of visas, for example, by promptly issuing them with minimum documents requirement, except for those who are not admitted to Japan by law.

l The Pre-Arrival Examination System has been introduced by Japan Customs. This system can be utilized for necessary equipments importation in the event of pandemic outbreak.

(4) Align donor support with member economies' own strategies in the first four areas of the action plan;

(5) Link with the major donors, such as World Bank and Asian Development Bank, to coordinate long term funding and planning efforts to agriculture business recovery.

l Japan has been supporting Avian and Human Influenza control and preparedness through World Bank's Japan fund.

- Through the ADB, Japan is helping to fight avian influenza by building capacity in such areas as national planning, vaccination systems and animal quarantines in Asia and the Pacific.

FUTURE DIRECTIONS AND PRIORITIES

(*provide a brief summary of those issues that your economy will focus on in the short to medium term*)

Based on the Pandemic Influenza Preparedness Action Plan and guidelines, Japan will further intensify the measure to prevent and control avian and pandemic influenza, such as stockpiles of vaccines and antivirals, and enlighten the public and private sectors by providing necessary and appropriate information. Japan will give its continuous support to the APEC activities for the HPAI preparedness and responses.

Malaysia’s Progress Report

Malaysia is fully committed to the APEC Action Plan on the prevention and response to avian (among poultry and humans) and influenza pandemic. These commitments were reflected in our efforts to prevent and control avian influenza when it occurred 2004 and 2006. The Government has taken prompt action in instituting preventive measures. Although avian influenza was detected amongst poultry in Malaysia in 2004 and 2006, **there have not been any cases of avian influenza H5N1 amongst humans.**

The Ministerial Committee on the Prevention of Avian Influenza, co-chaired by the Minister of Agriculture and Agro-based Industry and the Minister of Health has been established since 2005. The close cooperation and collaboration between multi agencies ensure that there was no bird-to-human transmission of the disease.

The key factors to the successful control of HPAI outbreaks in Malaysia were as follows; i) prompt notification, ii) immediate investigation, iii) fast confirmation, iv) immediate quarantine, v) swift depopulation and vi) thorough decontamination. The affected farmers have been adequately compensated. Selling of live birds inwet market is prohibited in many places. Currently, vaccination of birds with H5N1 vaccine is prohibited in Malaysia. Meetings with private sector have been carried-out to promote appropriate reform of those commercial poultry production system with low to minimal biosecurity to reduce incidence of avian influenza infection.

It also firmly believes in transparency with the public and international community in dissemination of information. The outbreaks among poultry have been reported to OIE promptly. Any suspect cases among humans during the outbreaks have been notified to WHO. Biological specimens isolated from birds have been sent to the WHO Collaborating Centre (Hong Kong) for further tests and the information has been shared with other countries. Laboratory capacity especially of the Veterinary Research Institute and the Institute for Medical Research has been strengthened for early detection, diagnosis and response. Other regional laboratory capacities has also been strengthened for influenza surveillance networks.

As the prolonged outbreaks of avian influenza can trigger an influenza pandemic, the Ministry of Health has taken proactive steps to prepare the “National Influenza Pandemic Preparedness Plan”. Organizational response is very important in providing policy direction, coordination and implementation of the action plan in dealing with influenza pandemic. Three main committees have been established under this preparedness plan. Each of these committees, which are multisectorial and multi disciplinary in nature, has its own terms of reference and authority. Other strategies for the prevention and control of avian and influenza pandemic include; i) public health response, ii) medical response, iii) laboratory response and v) risk communication. As part of pandemic preparedness, appropriate risk communication has been developed. The Health and medical staff, representatives from business sector and foreign mission in Malaysian have been briefed on the national pandemic preparedness. The Ministry of Health with cooperation of the Society of Occupation and Environmental Medicine of the Malaysian Medical Association have developed the Recommendation on Influenza Pandemic Preparedness for Industry in Malaysia. This recommendation is meat to assist the private sector in developing pandemic preparedness plan. In

addition, the Ministry of Health has worked closely with the private sector in providing technical inputs into their plan. Malaysia has made the National Plan and protocols available to other countries by placing these protocols in its website. Malaysia has also developed an effective partnership with media and other stakeholders for the exchange and dissemination of information especially during outbreaks.

Activities done at the preparedness level are very important to ensure that, should the influenza pandemic occur, the impact of the influenza pandemic is minimal. In this regard, the Ministry of Health is in the process of stock pilling anti-virals, vaccines, personal protective equipments and upgrading hospitals and laboratory facilities and enhancing capacity building (especially human resources). Simulation exercises have been carried-out at the district, state and national level since early 2006 to ensure the plan is workable and practical. Malaysia also involved in the APEC Pandemic Response Exercise 2006 to test the communication procedures among APEC economies during pandemic. The prevention and control of any pandemic require cooperation between agencies at national, regional and international level. Representatives from Malaysia have and will be participating in several meetings, workshop and forums to discuss issues pertaining to the influenza pandemic.

Avian & Influenza Pandemic – Implementation of APEC Action Plan (Malaysia)

Ministry of Health Malaysia

Avian Influenza in Malaysia

- 2 episodes of Avian Influenza outbreaks among poultry:
  - 2004 – involved 5 districts in Kelantan State
  - 2006 – involved 3 states (KLFT – 1 district), (Perak – districts) & (P. Pinang – 1 district)
  - reported promptly to OIE & WHO, virus isolated shared with others
- Avian influenza free since end of June 2006
- No avian influenza cases among humans

Ministry of Health Malaysia

Avian & Pandemic Influenza – Multi-sectoral Cooperation & Coordination

- Ministerial Committee on the Prevention of Avian Influenza
  - co-chaired by Minister of Agriculture & Agro- based Industries & Minister of Health
  - members – many agencies

- National Influenza Pandemic Preparedness Plan
  - multi-sectoral & multi disciplinary
  - 3 committees
  - members – many agencies, government & non-government

Ministry of Health Malaysia

Avian & Pandemic Influenza – Establishing Best Practices

- Appropriate risk communication developed as part of pandemic preparedness.
- Risk communication – according the pandemic phases
- Recommendation on Influenza Pandemic Preparedness for Industry in Malaysia – developed in cooperation of MOH & SOEM
- National plan & protocols available in website
- Effective partnership with media for exchange & dissemination of information esp. during outbreaks

Ministry of Health Malaysia

Avian Influenza – Mitigating Negative Effects

- Key factors success

  prompt notification, immediate investigation, fast confirmation, immediate quarantine, swift depopulation, through decontamination

- Compensation given to farmers
- Promote appropriate reform of commercial poultry production
- Disease-free zones developed

Ministry of Health Malaysia

Conclusion

- Many components of Action Plan have been implemented

Ministry of Health Malaysia

Papua New Guinea’s Progress Report

1. HIGHLIGHTS

- *Initiatives that respond to the five main activities in the Action Plan and / or the specific objectives.*

PNG economy has already undertaken initiatives that, has advanced its planning and preparedness efforts. For example, in November 2006 the PNG economy completed its National Preparedness and Response Plan or National Contingency Plan for Preparedness and Response for Influenza Pandemic as drafted in collaboration with the World Health Organization, the OIE, the FAO and neighbouring member economies like Australia and New Zealand.

2. Implementing the Action Plan

- *Multi-sectoral cooperation and coordination on avian and pandemic influenza*

The PNG economy has accomplished this task by completing its National Preparedness and Response Plan as mentioned above. The economy did this in collaboration with the WHO, the OIE, the FAO, and the economies of Australia and New Zealand at the regional and international levels. PNG economy also worked with the economy of Japan in terms of providing Japan a copy of its "Compilation Report on Domestic Avian Influenza".

At the domestic level, the collaboration to do this Plan was between the public health sector and the agriculture sector through the National Agriculture Quarantine and Inspection Authority (NAQIA).

The next phase is to develop the Operational Plans. There will be two such plans.
One Operational Plan caters for the human health sector. The operational plan for the human health sector is currently being worked on by the economy.

The other Operational Plan focuses on the animal health sector. The draft avian influenza response plan in the animal sector has been completed with Standard Operating Plans (SOPs) and is in its final stages of developing the Operational Plans at the provincial level.

Government Agencies responsible for developing these plans are the Department of Health, and the National Agriculture Quarantine & Inspection Authority (NAQIA) respectively.

- *Establishing best practices and common approaches to risk communications*

The Papua New Guinea economy is planning this activity according to its National Preparedness and Response Plan. The economy has identified UNICEF (PNG) as the leading UN Agency to assist PNG economy in the identification, development and implementation of the risk communication system for Papua New Guinea.

The subcommittee for risk communication is in progress of the system and a draft system has been circulated for consultation. Hence the progress has started.

- *Mitigating negative effects of avian influenza on agriculture and trade*

Papua New Guinea's economy most immediate response is to prevent the entry of the disease through Trans-border transmission and the Government through NAQIA has already in place an early warning surveillance system through quarterly sentinel flock active surveillance system; dead bird passive surveillance system for domestic and wild water bird and currently developing to enhancing its rural disease reporting network system with the aim of enhancing its dead bird surveillance and early detection system. NAQIA has already established surveillance capacity in the animals in collaboration with the Australian Quarantine Inspection Services.

Since the development of the draft national influenza pandemic plan, there has been significant improvement in surveillance capacity in animals, in collaboration with the health sector.

- *Working with the private sector to help ensure continuity of business, trade and essential services*

This is an important area. As per the National Plan, important key stakeholders and non-health stakeholders have been identified. Their roles and responsibilities during a pandemic, delineated. What is left to be done is to hold more awareness meetings with these sectors and get them to draw up action plans. A meeting is planned before June this year including media people.

From the agriculture perspective a subcommittee has been identified to look into this issue. Progress is needed in this area.

- *Strengthening regional and international cooperation*

PNG economy is working closely with the Secretariat of the South Pacific Community (SPC) through the Pacific Regional Influenza Pandemic Preparedness Project (PRIPPP) to develop a regional response plan for the Pacific Island economies. The action plan was completed in 2006. The Secretariat of the South Pacific Community also worked with the economy to develop a host country MOU that PNG economy would counter-sign with the SPC. The Secretariat of the South Pacific Community will also work with the local economy to develop response capacity and to test the response plans. A regional task force has been established recently under the project to ensure regional support is sustained.

As per this plan, SPC has provided an in-country Pandemic Preparedness Specialist to assist PNG economy in its day to day response. The officer is now working with the National Influenza Task force. In this plan SPC would provide both medical and veterinary epidemiologists and a SPC based laboratory specialist for the upgrading of both the medical and veterinary laboratories to support the surveillance and diagnostic capabilities. Recruitment for the posts has been advertised and the officers are already on the ground.

3. FUTURE DIRECTIONS AND PRIORITIES

- Fully complete all necessary Standard Operating Procedures (SOPs) for both human and animal health.

- Fully integrate the National Plan (i.e. human and animal health plans).

- Complete provincial influenza preparedness and response plans. Target six high risk provinces, including provinces directly lying on the Papua New Guinea Indonesian Border. Field testing of the National and Provincial Plans. This is being planned for February to March 2008.

- Complete the setting up of rapid response teams.

- Establish disease surveillance and early warnings systems.

- Implement International Health Regulations (2005) by conducting review of relevant domestic legislations to accommodate the IHR.

- Ensure that appropriate and adequate PPE drugs and supplies are procured and stored in identified settings.

- Wide collaborations with Non-Government Organizations and business community.

- Endorsement of the Avian Influenza and Pandemic Response Plans.

- On-going surveillance in animals.

- Testing of the response plans, both at the national and provincial levels.

Chinese Taipei's Progress Report

HIGHLIGHTS
(*provide examples of those initiatives that have advanced your planning and preparedness efforts*)

Implementing the Action Plan: (*provide input as indicated in the presentation at the HTF meeting*)

Multi-sectoral cooperation and coordination on avian and pandemic influenza

With a view to preventing the invasion of highly pathogenic avian influenza (HPAI) in a more comprehensive fashion, the administrative level of influenza pandemic preparedness and response has been raised to the highest security level. An apex "Security Meeting" chaired by the highest level of the administration was set up to give strategic instructions that later the top executive authority and departments under will have to follow. Since August 2005, there have been three of such meetings.

In order to effectively implement the top-level strategy, a cabinet level of inter-agency working group has been established in 2004. The working group meets and reviews preventive measures monthly. Since 25 October 2005, the top executive authority has held the "Coordination Meeting for Avian Influenza Prevention and Control" on a regular basis. The head of the top executive authority has assigned a convener to supervise the event. All related departments are attended to discuss and make decisions on cross-sectoral or imperative issues related to avian and influenza pandemics. Up to April 2007, there have been 26 of such meetings.

In the meantime, three simulations of HPAI eradication exercises have been held in 2004, 2005 and 2006. The aims of these exercises are to test the contingency plan for the control of HPAI and to strengthen the communication and cooperation among human and animal health authorities, and private sectors such as poultry producers.

Establishing best practices and common approaches to risk communications

Chinese Taipei has implemented a series of communication programmes to educate people how to prevent influenza infection. The current campaign focuses on promoting respiratory hygiene, cough etiquette and frequent hands washing. We also encourage people to wear masks and take days off from work when developing influenza symptoms, and to avoid contacting with poultry or paying visits to affected areas.

Apart from the undertakings above, gathering of global disease information and restriction on the importation of birds and their products from the avian influenza virus infected areas have also been carried out, so have stringent quarantine procedures at international airports and harbours. Hopefully, these undertakings could curb the smuggling of birds.

The abovementioned simulations of HPAI eradication exercises also helps to gather various sectors and departments, and pull their resources together to develop a stronger cooperative relationship to combat the pandemics more effectively. Therefore, the importance of these exercises is to simultaneously test and build up better communications and cooperation across departments and sectors, as well as set out contingency plan for controlling of HPAI.

Mitigating negative effects of avian influenza on agriculture and trade

There are several measures taken to mitigate the negative effects caused by avian influenza. Firstly, bird-proof netting systems at poultry and pig premises have been implemented with subsidies.

Field official veterinarians visit poultry farms from time to time in order to help poultry producers to strengthen their bio-security measures.

For the control of pandemic outbreaks, ring vaccination will be taken into consideration. The Council of Agriculture has prepared 40 million doses of H5 subtype AI vaccines and 30 million doses of H7 subtype AI vaccines for poultry to be used for ring vaccination in a buffer zone.

The ban on on-site slaughtering and selling of live birds in traditional/open markets has been implemented since 1 April 2007. For the first six months there are series of promotional and education programmes. After that a penalty will be given should any case is found against the ban. This will minimise human-poultry contacts, and the infection from each other. In addition, it will certainly lower the number of cases of Avian Influenza and the probability of emergence of new type of Avian Influenza. However, vendors have not been left without any assistance; there are funds available for them to purchase cold-storage equipments. Also, there are subsides from the COA to set up regional medium to small dressing plants for hygienic dressing. These measures mark an effort of cross-departmental cooperation, since it has mustered the resources from the Ministry of Economic Affairs, the Department of Health and relevant local authorities.

In the meantime, the Council of Agriculture (COA) has appealed to the farmers to reduce poultry density in order to avoid any infections during the high season of bird migration,

For maintaining normal consumption and stabilising the market price of poultry, the COA always aims to disseminate correct information on avian influenza and on related production and marketing adjustment measures. It also holds regular promotional events.

Education programmes are conducted constantly for poultry producers to give them the knowledge about how to prevent the introduction of viruses. The COA also carries out price stabilisation projects jointly with the Animal Industry Foundation, the Poultry Association, the Ducks Association, the Geese Association, the Poultry Processors Association and other organizations from private sectors.

Working with the private sector to help ensure continuity of business, trade and essential services

In order to reduce influenza morbidity and mortality while maintaining essential social functions during a pandemic, Chinese Taipei has joined the latest school of thought regarding functioning economy in times of influenza pandemics. In April 2007 guidelines were drafted for private sectors, especially business community, to help them operate as normal as possible under the abovementioned circumstance. They also aim to help organizations and businesses develop their own response plans in advance so they can reduce absentee levels and financial losses during pandemic period.

Assistances are also provided to the private sector in establishing poultry slaughterhouses in order to supply customers with safe meat sold at conventional markets.

Besides, funds, loans and related financial assistances have been in place to help the business sector maintain normal operations in the times of influenza pandemics.

Strengthening regional and international cooperation

At the present stage, it is widely believed that only through containing the spread of virus at the early phase can we interrupt or delay the occurrence of influenza pandemic.

Therefore, Chinese Taipei has actively established relationships with other APEC member economies as well as participated in relevant global collaboration initiatives on prevention and treatments. So far, we have attended the activities like "APEC Pandemic Response Exercise 2006" held by Australia, "PI Exercise 2006 and International Workshop" held by WHO and Korea, "Japan-WHO Joint Meeting on Early Response to Potential Influenza Pandemic in Asia", and "International Training for Rapid Containment of Potential Pandemic Influenza" held by WHO. By attending the abovementioned conferences and workshops, Chinese Taipei is able to share experience and information on avian flu and pandemic preparedness with regional and international experts to facilitate cross-border cooperation.

In addition, Chinese Taipei has designated the Centers for Disease Control as an IHR Focal Point according to the International Health Regulation 2005. Its objective is to cooperate with other economies for the information sharing in the future.

In the meantime, as a member of the World Organization for Animal Health (OIE), Chinese Taipei has been actively participating in the activities held by the organization, and working closely with other members, especially those in Asia in controlling the outbreaks of avian influenza.

FUTURE DIRECTIONS AND PRIORITIES

(*provide a brief summary of those issues that your economy will focus on in the short to medium term*)

So far, Chinese Taipei is free from highly pathogenic avian influenza, and we will continue to conduct the surveillance programme, and implement preventive measures exhaustedly. Hopefully, we can successfully maintain our AI-free status and the health security of the Asia-Pacific region.

In the future, the Centers of Disease Control and the related authorities will continue to enhance the highest level of preparedness. The Strategy Plan and associated SOPs will be constantly undated based on the latest information, and an evaluation mechanism will be established to assess local authorities' plans. Furthermore, relevant exercises will be conducted to regularly test the strengths and weakness of the overall pandemic planning.

Preparedness of Influenza Pandemic

Vincent Bin-Shenq Ho MD, MPH

Chinese Taipei

Background

Since 1997

H5N1 virus spreads within fowls

↓

Human cases occur

⋮

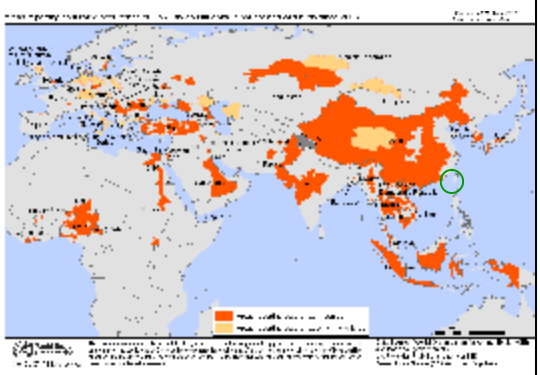
↓

H5N1 virus evolves into an easily-spreading form

⋮

↓

Influenza pandemic



- The global pandemic alert is still maintained at **phase 3**

Current WHO phase of pandemic alert

Inter-pandemic phase	**Low risk of human cases**	**1**
New virus in animals, no human cases	**Higher risk of human cases**	**2**
Pandemic alert	**No or very limited human-to-human transmission**	**3**
New virus causes human cases	**Evidence of increased human-to-human transmission**	**4**
	Evidence of significant human-to-human transmission	**5**
Pandemic	**Efficient and sustained human-to-human transmission**	**6**

Chinese Taipei phases of pandemic response

Classification	Activation time
Phase 0	Detection of avian influenza virus H5 or H7 domestically or confirmed human cases of avian flu abroad.
	1. Lowly pathogenic avian flu occurred in poultry domestically
	2. Highly pathogenic avian flu occurred in poultry domestically
Phase A1	Confirmed human-to-human cases abroad
Phase A2	Suspected domestic cases of fowl / animal-to-human transmission, imported infection or lab infection
Phase B	Confirmed domestic human-to-human cases
Phase C	Large-scale domestic human-to-human transmission

Administrative mechanisms

Apex security meeting
(3 times)

Coordination meeting
(26 times)

Preparedness meeting
(52 times)

Emergency mobilization

Epidemic Command Center

- based on Communicable Disease Control Act
- commander assigned by top executive authority

Outline of strategies

Four strategies

- **Early detection**
- **Intervention of transmission**
- Antivirals
- **Influenza vaccine**

Five lines of defense

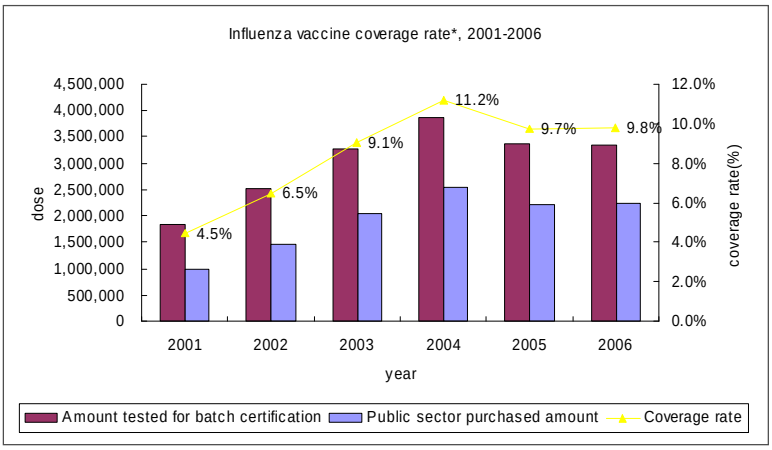
- **Containment abroad**
- **Border quarantine**
- **Community epidemic control**
- Maintaining normal functioning of medical system
- **Individual and family protection**

Antivirals

- Neuraminidase inhibitors stockpile
  - Oseltamivir (Tamiflu) & Zanamivir (Relenza)
  - Cover 10% population
- Antiviral strategy
  - Phase 3: Treat H5N1 patients, prophylaxis in close contacts
  - Phase 4~5: Targeted or ring containment
  - Phase 6: Reduce morbidity and mortality

Influenza vaccine

- Routine promotion of the annual flu vaccination
  - Contribute to capacity-building in the manufacture, delivery and administration of pandemic vaccine



Influenza vaccine (cont.)

Short-term

Stockpile of 190 thousand doses of H5N1 vaccines

↓

Mid-term

Establish emergency manufacturing line in 2008 Q3

↓

Long-term

- Build up the first flu vaccine plant by the end of 2009 with an annual manufacturing capacity of 16 million doses
- Build-Own-Operate (BOO in short)

PPE (personal protective equipment) preparedness

- Estimate PPE demand **è** Determine safety stockpile **è** Manage and monitor information **è** Reallocation and delivery

PPE stockpile and allocation

Items	Level 1	Level 2	Medical facilities	Total
N95 equivalent or higher-level masks (pcs)	500,000	500,000	1,000,000	2,000,000
Surgical mask (pcs)	1,750,000	1,750,000	3,500,000	7,000,000
Flat mask (pcs)	75,000,000	0	0	75,000,000
Protection clothes (suit)	200,000	200,000	400,000	800,000

PPE preparedness (cont.)

Management Information System (MIS)

Medical system preparedness

- Primary health care facilities
  - To care mild patients during pandemic period
- Contract hospitals for infectious disease
  - 23 hospitals and 18 support medical centers
  - Evacuation plans for pandemic flu treatment
- Large-scale care center
  - By expropriating other hospitals or facilities
  - Local authorities are planning the location, manpower and equipments

Medical Network for Prevention and Control of Infectious Diseases

"Infectious Disease Prevention and Control Hospital" activation authority → **Centers for Disease Control**

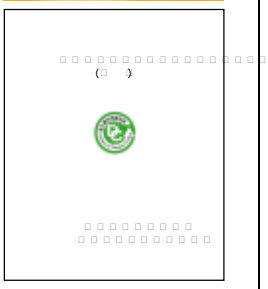
"Infectious Disease Prevention and Control Hospital"(23 hospitals) activation authority: CDC

Taipei Command Center Commander: Chang ShangChuan CDC 1st branch	Northern Command Center Commander: Lin TsoYan CDC 2nd branch	Middle Command Center Commander: Wang JenHsien CDC 3rd branch	Eastern Command Center Commander: Lee JenChi CDC 6th branch	Southern Command Center Commander: Chuan YinChing CDC 4th branch	Kao-hsiung/PingTung Command Center Commander: Liu YungChing CDC 5th branch
General KeeLung Hospital, DOH	General TaoYuan Hospital, DOH HsinWu Region, Region	General TaiChung Hospital, DOH	General HuaLien Hospital DOH	NTU Hospital YunLin Region	Kaohsiung City MingShen Hospital
Taipei Joint Hospital HoPing Region	General MiaoLi Hospital, DOH	General NanTao Hospital, DOH	General TaiTung Hospital DOH	General ChiaYi Hospital, DOH	General ChiShan Hospital, DOH
Taipei County Hospital SanChung Region	General HsinChu Hospital, DOH	General FunYuan Hospital, DOH		General ShinYin Hospital, DOH	General PingTung Hospital, DOH
General YiLan Hospital, DOH	General ChuDon Hospital, DOH	General Changhua Hospital, DOH			General PengHu Hospital, DOH
General KinMen Hospital, DOH					
LianChiang County Hospital					

Communication

Message communicated with the public

- Proper consumption of poultry products
- Respiratory hygiene and cough etiquette
- Appropriate use PPE
- How to seek medical attention



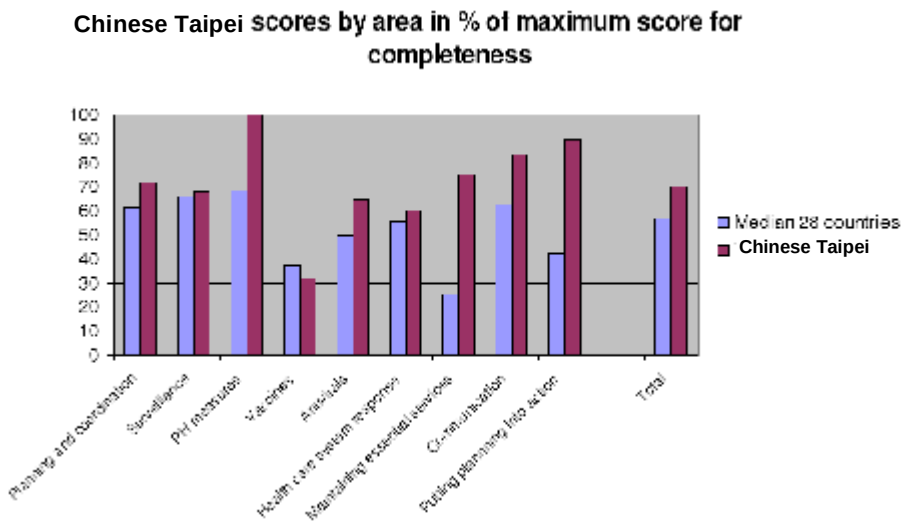
Recommendation provided to business continuity planning (BCP)

Mitigating potential impacts on agriculture and trade

- Bird-proof netting system at poultry and pig premises
- Field official veterinarians to strengthen bio-security measures
- Ban on on-site slaughtering and selling of live birds in traditional/open markets
- Stringent quarantine procedures at international airports and harbours
- Ring vaccination plan ready
- Price stabilization project
- Information/education/communication to poultry producers and workers

Exercises

- Table-top exercise on pandemic phase 4 (Jul. 2005)
- Table-top exercise on pandemic phase 5~6 (Dec. 2005)
- Drill on control measures for passengers arriving into the airport (Apr. 2006)
- Drill on “not moving patients, but moving medical teams” in off-shore islands (Aug. 2006)
- Drill on PPE emergency distribution (Oct. 2006)
- Exercise on local authority’s response during phase 4~5 (Nov. 2006)



Mapping Chinese Taipei preparedness by Dr. Coker

-- High quality, clear document

-- A number of innovative approaches from which other countries could learn

Chinese Taipei CDC **è** Flu net

http://www.cdc.gov.tw

Thanks for your attention

vincentbsh@cdc.gov.tw

Thailand’s Progress Report

The unprecedented spread of highly pathogenic avian influenza H5N1 has affected poultry population in many countries including some countries of APEC economies. The poultry outbreak brought about economic consequence due to the disruptions to poultry industry and the loss of livelihood and food security, accompanied with illnesses and deaths among humans.

An influenza pandemic is a rare but recurrent event. A pandemic occurs when a new influenza virus emerges. Because the virus is new, the human populations have no pre-existing immunity.

The main challenge is to combat Avian Influenza (AI) and minimize disruptions. National authorities are responsible for developing appropriate public health policies and communication strategies that could be widely implemented by partners in all sections including the empowerment of the community to protect themselves and their families. Thai Government has been dealing with AI as a national agenda, addressing the problems with multi-sectoral and integrated approaches. The activities undertaken that correspond to 5 key areas of APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemic are summarized as following:

1. Multi-sectoral cooperation and coordinating on avian and pandemic influenza

The information sharing including AI surveillance network in human and poultry have been strengthened. The AI surveillance system has been set up in every province on top of existing disease notification system. There are 1,030 of surveillance and rapid response teams (SRRT) responsible in every district for disease investigation and rapid control. The unusual sickness and deaths in poultry are immediately reported by more than 800,000 village health volunteers.

The regional laboratories have been improved in capacity to be able to confirm and report the H5N1 infections within 48 hours. The virological surveillance for human influenza mutation has been established including with studies related to resistance to Oseltamivir of H5N1 strain.

The medical stockpiles and distribution system have been developed. Currently, there are 0.25 million doses of antiviral drug (Oseltamivir) reserved at the central stockpile and a number of doses distributed to 911 regional government hospitals. The antiviral drug research and development are ongoing to increase drug production capacities in-house.

War room meetings have been maintained to continuously maximize the efficiency of coordination and command on AI control under inter-ministerial and multi-sectoral collaborations.

Integrated mechanisms for coordination of AI response have been strengthened consequential to simulation exercises at national, ministerial, provincial, district and sub-district levels. At present, 57 provinces have conducted a tabletop exercise on AI response and pandemic preparedness. Most of the departments in Thai MOPH have initiated their simulation exercises. The exercises at central levels were connected to the regional centers by telephone, fax and teleconference. At ministerial level, the Ministry of Public Health has recently finished a simulation exercise, which was participated by the executive members of the ministry.

At the national level, the national committee for AI and pandemic influenza preparedness recently agreed to plan for a national simulation exercise on influenza pandemic preparedness. The Nation Strategic Plan for AI and Influenza Pandemic Preparedness year 2005-2007 (available at website http://thaigcd.ddc.moph.go.th/AI_Nationalplan_en_05_07.html) is being revised for formulating the 2nd version which expands to cover the years 2008-2010.

2. Establishing best practices and common approaches to risk communication

Risk communication was integrated as a strategy in the Nation Strategic Plan for AI and Influenza Pandemic Preparedness.

The "Knock Door" campaign by village health volunteers are carried out to directly educate people on personal care and protection from the communicable diseases. The village health volunteers have been trained and supported for communication with local people on basic knowledge of disease control. Health education materials were produced and disseminated to all schools. Furthermore, youth network on AI control has been initiated in 12 model schools.

Information and recommendation of AI and human influenza have been disseminated through MOPH website (http://www.moph.go.th) and various mass media such as newspaper, radio and television including hotline service which is available 24 hours.

3. Mitigating negative effects of avian influenza on agriculture and trade

Active surveillance system in poultry has been strengthened. The X-ray campaigns, active disease search were carried out at least twice a year. Prompt control of poultry infection is activated by the report of unusual sickness or deaths of the poultry, and is based on pre-emptive culling with compensation. The movement of poultry and poultry products is strictly controlled. Infected farms and the surrounding holdings will be cleaned and disinfected.

The poultry farming system has been restructured. For commercial farms, the farming system is encouraged into compartmentalization and biosecurity. For free range ducks, the farmers are supported for building of housing by providing soft loan with low interest.

Joint assessment of interventions for AI control in animals has been conducted by FAO, Department of Livestock Development and external experts.

4. Working with the private sector to help ensure continuity of business, trade and essential services

A guideline for pandemic influenza preparedness planning for business sector has been developed and disseminated to provinces, business sectors etc. In addition, the training courses for private sector on business continuity planning in times of pandemic have been conducted to expand proficient network for influenza pandemic preparedness.

5. Strengthening regional and international cooperation

Thailand has participated in several multi-lateral and bi-lateral meetings on international cooperation and also cooperating wtih international organizations such as WHO, FAO, OIE and IEIP. The supports of these international bodies have been translated directly and indirectly into the development and implementation of policy, strategy and guidelines for the national and regional AI response.

APEC

Thailand as a member country is cooperating with APEC in order to prevent and response to influenza pandemics. In addition, Thailand has joined APEC to endorse action plan on "The Prevention and Response to Avian and Influenza Pandemics" and APEC Initiative on Preparing for and Mitigating an Influenza Pandemic.

Thailand actively took part in capacity building seminar on AI to prevent AI at its source and participated in APEC Pandemic Response Exercise in 2006. Furthermore, we provided final comments on the Guideline for Functioning Economies in Times of Pandemic (FETP).

ASEAN +3

Thailand serves as coordinating center for capacity building on disease surveillance. Thailand is also an active counterpart in existing surveillance network and early warning system and diagnostic capacity have Thailand as a coordinator.

ACMECS (Ayeyawady - Chao Phraya - Mekong Economic Cooperation Strategy)

Thailand as the coordinating country for ACMECS public health sector has proposed establishing National Focal Point and Contact person from each ACMECS country member for coordinating the implementation of the ACMECS Health Sector's Plan and facilitating real-time information sharing among the member countries.

Joint action programs have been developed between Thailand and Cambodia and Thailand and Lao PDR on Communicable Diseases and Disease Outbreak Response along the Border (1) to strengthen collaboration and network, (2) to enhance capacity of SRRT and community health volunteers, and (3) to increase knowledge and awareness of border population and the community on AI and other infectious diseases.

Moreover, a number of training workshops have been conducted to strengthen capacity of health personnel on early recognition and prompt containment of AI and other emerging infectious diseases, these include training for SRRT trainers, in-country training for SRRTs, and AI laboratory investigation workshop.

MBDS(Mekong Basin Disease Surveillance Project)

MBDS has been established in order to facilitate the collaboration among health ministeries of six Mekong Basin Countries information sharing on disease surveillance. Surveillance and rapid response building is a main activity package in which Thailand has participated, especially through Field Epidemiology Training Program and Geographical System development. Thailand through the ministry of Public Health also sense to

coordinate linkage between MBDS and US-CDC. Regarding MBDS simulation exercise on influenza pandemic preparedness, Thailand coordinated an exercise in Thailand on 25 August 2006 and participated in the joint regional table top exercise during 12-15 March 2007 in Cambodia.

Prospective

The timing and severity of the next pandemic are cannot be predicted. Furthermore there are still important gaps in our knowledge about the spread of influenza, and hence the effectiveness of control measures. In addition, the new virus that emerges may have novel features. Thailand stands firm with its commitment to join global efforts to fight AI. The responses to the human AI situation in Thailand can be summarized as follows:

1. Strengthen the alert and response system including involving village health volunteers (VHVs) in active case detection.
2. Expand laboratory capacity.
3. Ensure adequate stockpiles of diagnostics, medicines (antivirals and others), human influenza vaccines, and other medical supplies.
4. Apprise the public with updated information on current AI situation.
5. Support several research studies related to AI.

Lesson learnt

The major success factors for AI control are:

1. Strong leadership and support of the Government
2. Close co-operation between public health and animal health authorities, and among partners in multi-sectors
3. Proactive risk communication to the public and strong public involvement
4. Extensive international collaborations, especially with WHO, IOE, FAO, APEC, ASEAN control etc.
5. Existing infrastructure (surveillance, laboratories, disease control, hospital infection, trained personnel)

United States' Progress Report

HIGHLIGHTS
The U.S. National Strategy for Pandemic Influenza, the Implementation Plan for the National Strategy, progress reports, and a wealth of other information on U.S. planning and resources for avian and pandemic influenza, including international activities can be found at www.pandemicflu.gov.

Implementing the Action Plan:

Multi-sectoral cooperation and coordination on avian and pandemic influenza
The U.S. has engaged in a broad range of bilateral and multilateral initiatives to build cooperation and capacity to fight pandemic influenza internationally. For example we continue to work through the APEC Health Task Force to develop initiatives and protocols to facilitate collaboration in response to a developing pandemic. In addition, we are near completion of an integrated U.S. Government strategy for priority countries. The strategy will be updated as risk assessments change and as future developments warrant changes in priority countries.

All priority countries have established early-warning networks for H5N1 in animals and conform to disease definitions and diagnostic standards for influenza established by the World Organization for Animal Health (OIE). More than 75 percent of priority countries have human influenza early-warning capabilities and all abide by international case definitions; more than 75 percent meet laboratory standards for human diagnosis. We have provided technical assistance to strengthen national surveillance systems in all priority countries, support to international organizations for human and animal health to promote early warning surveillance for influenza outbreaks in member countries, and technical training to strengthen human and animal diagnostic laboratories in the detection of influenza virus in priority countries.

The U.S. has implemented numerous efforts to build response and containment capacity in at-risk countries, and to reinforce broad acceptance of the International Health Regulations and related protocols and standards of the WHO. We are finalizing protocols on the response to and containment of outbreaks and have developed a curriculum to teach principles of rapid pandemic response to public health personnel in other countries. Agreements with Institute Pasteur and Gorgas institute have been developed, including $1,550,066 obligated to Institute Pasteur and $775,000 to Gorgas Institute for projects under this item. To ensure that all priority countries have the ability to rapidly transport influenza samples to the WHO for analysis, we have provided $400,000 to WHO to conduct five training workshops focused on proper transport of dangerous materials, as well as to provide consultations with priority African partners regarding the proper protocol for specimen transport.

Establishing best practices and common approaches to risk communications
The U.S. has distributed information on avian influenza vaccines and vaccination to the two primary international animal health organizations (FAO and OIE), to multiple national and international animal health industry and trade associations, and to representatives of international vaccine manufacturers. Information is also being provided directly to governments and poultry industries in key priority and at-risk countries. Our dissemination of vaccine efficacy information will be ongoing as

experiments with new vaccines are completed. In addition, a training symposium is being developed for distribution in Asia, Africa, and Central and South America.

To prepare for meeting requests from interested countries, the U.S. has collaborated with academic institutions to develop a multi-media training module on animal vaccines and vaccination strategies. International partners have been educated on animal vaccines' efficacy and application strategies, as well as potential organizational models, for collaborations that are necessary to implement a national animal vaccination program.

A coordinated public affairs strategy based on WHO guidelines that were developed with U.S. assistance has been shared with an extensive list of public affairs contacts we have established throughout the U.N. system, the World Organization for Animal Health, the World Bank, and regional organizations. We have provided this contact list and the reference to U.S. planning documents posted on www.pandemicflu.gov to all. We are working with our partners to increase the sharing of communications plans.

Information on pandemic preparedness and U.S. international policy and activities for broad domestic and international audiences has been posted on U.S. Government web sites, including www.pandemicflu.gov, www.state.gov/g/avianflu, and www.usinfo.state.gov. Key U.S. officials have also reached out to the American public through speeches in public fora. Through international media orientation, TV documentaries, web sites, news stories, and enhanced Voice of America broadcasting we have reached an estimated audience of more than 300 million.

Mitigating negative effects of avian influenza on agriculture and trade

To address the challenging issue of compensation, we have developed a replicable compensation model in partnership with the World Bank, FAO and the Government of Indonesia. This program will be launched in early 2007, and will integrate compensation into ongoing community-based surveillance and response efforts. We are also working with international organizations such as the World Bank to research and recommend compensation strategies, including non-monetary incentives, and to develop approaches to indemnity programs that could be used in other priority and high-risk countries.

Working with the private sector to help ensure continuity of business, trade and essential services

The U.S. Department of State (DOS) and Department of Commerce (DOC), in collaboration with CDC, drafted a checklist entitled "Pandemic Preparedness Planning for U.S. Businesses with Overseas Operations," which has been vetted with the three business associations engaged in avian influenza outreach: the National Associations of Manufactures, the Business Round Table, and the U.S. Chamber of Commerce.

The International Trade Administration (DOC) in conjunction with the Bureau of East Asian Affairs (DOS) developed informational guidance for small/medium businesses targeting APEC countries. The guidance was derived from the CDC checklist, the APEC Business Advisory Council (ABAC) checklist, and various private sector business checklists. The guidance was endorsed at the Small and Medium Enterprises Ministerial Meeting. The guidance has been placed on the APEC website for use by all APEC member economies.

Strengthening regional and international cooperation

We have encouraged the multilateral development banks to undertake programs to improve health surveillance systems, strengthen countries' response to outbreaks, and boost health systems' readiness, and they have responded quickly. The World Bank has pledged up to $500 million for country programs to counter pandemic influenza and is administering a multi-donor trust fund. The Asian Development Bank has pledged up to $470 million, focusing on regional approaches to prevent and control pandemic influenza. The World Bank is also playing a critical role in tracking and coordinating donor funding.

We have encouraged the IMF to enhance its surveillance of countries and regions, including further assessment of the macroeconomic and financial vulnerability to an influenza pandemic. To this end, the IMF published an analysis in early 2006 on the potential economic impact of a pandemic, and it continues to look at pandemic risks in select countries. The IMF has also conducted regional seminars to promote and share information on effective contingency planning.

In collaboration with the IMF and the multilateral development banks, we plan to ensure that financial assistance to affected economies is provided on terms consistent with the goals of restoring economic activity and maximizing economic growth (within existing international financial agreements). The IMF stands ready to help address countries' balance of payments needs in response to a pandemic. The World Bank is tracking donor commitments for avian influenza programs, and the Asian Development Bank is taking the lead in coordinating donor actions in Asia.

FUTURE DIRECTIONS AND PRIORITIES
(*provide a brief summary of those issues that your economy will focus on in the short to medium term*)

Viet Nam’s Progress Report



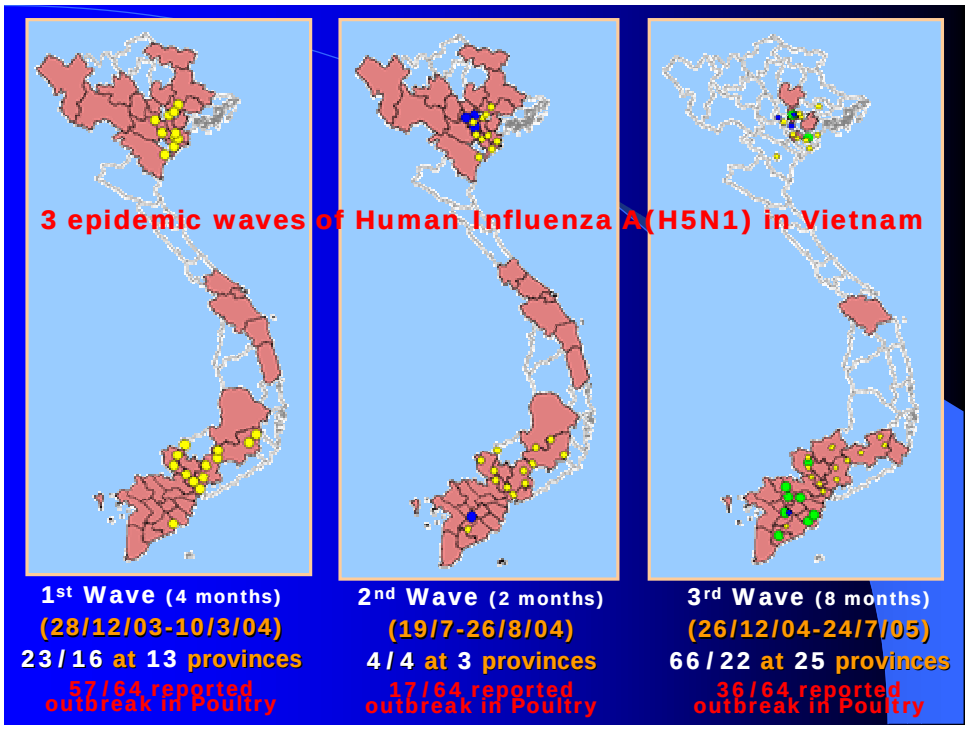
REPORT ON THE PROGRESS OF IMPLEMENTATION

APEC ACTION PLAN ON THE PREVENTION AND RESPONSE TO AVIAN & INFLUENZA PANDEMICS

MINISTRY OF HEALTH, VIETNAM, 2007

SITUATION OF AVIAN INFLUENZA IN VIETNAM

1. Vietnam first reported high pathogenic Avian Influenza outbreak in December, 2003;
2. At the peak of epidemic, 24% communes and 60% provinces affected;
3. From December 2003 to March 2004, 17% poultry died or exterminated (45 million);
4. From December 2006 to March 2007, epidemics in poultry reported in 11 provinces;
5. From December 2003 to November 14th 2005, 3 epidemic waves recorded in 32 provinces with 93 cases and 42 deaths (case fatility 45.1%); 97% patients directly or indirectly exposured to infected poultry;
6. No new cases since November 14th 2005.



NATIONAL ACTION PLAN

Principle

Commitment to *2005 Leaders' Initiative*

General Objective

To reduce the risk to human health from highly pathogenic avian influenza (HPAI)

Specific Objectives

- To minimize the incidence of, and mortality caused by avian influenza;
- To reduce the risk of an influenza pandemic occurring;
- To strengthen capacities of the health sector in detecting, preventing and responding to newly emerged diseases, specially diseases transmitted from animals

IMPLEMENTATION OF THE APEC ACTION PLAN

Multi-sectoral Cooperation and Coordination on Avian and Pandemic Influenza

1. ENHANCEMENT OF COORDINATION CAPACITY, NATIONAL LEVEL

- Vietnam Government promulgated 10 documents related to AI prevention and control;
- Vietnam Government assigned 11 delegations of Ministers to inspect the implementation of epidemic prevention measures at local level;
- National Steering Committee for Avian and Human Influenza Prevention met every 2 weeks in order to promote the execution of epidemic prevention activities;

IMPLEMENTATION OF THE APEC ACTION PLAN

Multi-sectoral Cooperation and Coordination on Avian and Pandemic Influenza

- MOH released document No. 1258/TB-BYT, December 29th, 2006, on the AI situation and epidemic prevention measures;
- Vietnam Administration of Preventive Medicine issued an Urgent Telegram guiding the AI affected provinces to reinforce monitoring, detecting and preparing to prevent human infection;
- MOH coordinated with Ministry of Agriculture and Rural Development, to hold meeting to assess the execution of the national activity coordination program for Avian and Human Influenza.

IMPLEMENTATION OF THE APEC ACTION PLAN

Multi-sectoral Cooperation and Coordination on Avian and Pandemic Influenza

2. STRENGTHENING DISEASE SURVEILLANCE, EARLY WARNING & RESPONSE SYSTEMS

- During epidemic, Institutes of Hygiene and Epidemiology (NIHE) / Pasteur Institutes at 4 regions took intuition 24 hours/day, in charge of guiding, monitoring and daily reporting to MOH;
- MOH established 10 epidemic response standing teams at Surveillance Sub-Committee and Treatment Sub-Committee;
- Local Authorities guided to launch environmental sanitation campaigns in January – February 2007;
- 55 training courses on EWARS organized for Provincial Preventive Medicine staff, 744 computers will be provided to provincial and district surveillane units;
- Medicines and disinfectant chemicals supplied to support local Institutes of Hygiene and Epidemiology / Pasteur Institutes and provinces in epidemic control enhancement.

IMPLEMENTATION OF THE APEC ACTION PLAN

Multi-sectoral Cooperation and Coordination on Avian and Pandemic Influenza

3. STRENGTHENING CAPACITIES FOR LABORATORY (equipment, guidelines, technical training, research)

- One BSL3 lab provided to NIHE; two mobile labs (BSL2), two mass decontamination systems, 36 PCR/REALTIME PCR systems will be provided to preventive institutes and provincial labs/hospitals;
- Medicines, chemicals and equipments for epidemic prevention and control purchased and ready in store at all central/provincial/district levels.

IMPLEMENTATION OF THE APEC ACTION PLAN

Multi-sectoral Cooperation and Coordination on Avian and Pandemic Influenza

- **4. RESEARCH ON EPIDEMIOLOGY AND VACCINE DEVELOPMENT BEING CONDUCTED AT NIHE/PASTEUR INSTITUTES**
- **5. PROMOTING DONOR COORDINATION**
  - Joint Government-UN Program
  - IEC Working Group with UNICEF
  - Technical support from UNDP, FAO, WHO, OIE, WB, ADB
- **6. STRENGTHENING BORDER QUARANTINE ACTIVITIES WITH NEIGHBORING COUNTRIES:** CHINA, CAMBODIA, LAOS

IMPLEMENTATION OF THE APEC ACTION PLAN

Establishing Best Practices and Common Approaches to Risk Communication

1. Improving community's knowledge, IEC and Behavior Change

- Maintaining & strengthening IEC working group (health & veterinary);
- Conducting surveys with IEC target population, identifying needs/gaps
- Implementing community mobilization measures;
- Developing and distributing IEC materials and Mass Media Campaigns.

Specific activities:

- Messages and information frequently broadcasted via mass media: Vietnam Television, Voice of Vietnam…;
- Health Education Communication Centers of 64 provinces guided to conduct propaganda & distribute leaflets, posters;
- AI situation, executed prevention activities and epidemic daily information submitted to the Government and MOH website.

IMPLEMENTATION OF THE APEC ACTION PLAN

Example of Avian Influenza Information, Education, and Communication (IEC) in Vietnam

Joint United Nations Programme to Fight Highly Pathogenic Avian Influenza, United Nations Children's Fund and the Government of Vietnam collaborated with WHO, FAO, and UNDP to develop the communication program.

Essential Messages

- What is known about H5N1
- How H5N1 is transmitted
- Known risk factors for H5N1
- Prevention measures: personal & food hygiene

- **Television spots**: national popular channels with movie stars, 45-60 seconds.
- **Radio spots**: National Radio Voice, 30 seconds.
- **Training Courses**: authorities, technicians, population, etc.

IMPLEMENTATION OF THE APEC ACTION PLAN

Establishing Best Practices and Common Approaches to Risk Communication

2. Organizing annual national workshops on developing and revising IEC for AI pandemic control plan

3. Participating the regional pandemic control NETWORK (Thailand, Cambodia, Laos...); developing storage, international and national aid mechanism

4. Sharing information; exchanging experiences and lessons with other nations

IMPLEMENTATION OF THE APEC ACTION PLAN

Mitigating Negative Effects of HPAI on the Health Care Sector

1. IMPROVING TECHNICAL QUALITY AND EFFICIENCY OF CURATIVE CARE PREPAREDNESS

- Guidance book on Avian Influenza A (H5N1) Diagnosis and Treatment improved, printed and distributed;
- 23 training courses on the use of ventilator organized for 720 hospital staff;
- About 1000 ventilators, 140 patient monitors, mobile X-ray machines, 72 blood analyzers, bio-chemistry analyzers, 80 pulse oxymeters providing for hospitals at different levels.

2. DEVELOPMENT OF POLICIES AND STRATEGIES

- Supporting the development of Law for prevention and control of communicable diseases and implementation guidelines;
- Organizing annual national workshops on the development and revision of AI pandemic control plan;
- Assessing incentive regulations for health workers at high risks.

IMPLEMENTATION OF THE APEC ACTION PLAN

Working with the Private Sector to Help Ensure Continuity of Business, Trade and Essential Services

INVOLVEMENT OF CIVIL SOCIETY AND BUSINESS SECTORS

- Developing Partnership for Avian and Human Influenza Control with representatives from scientific research community, civil society, INGOs, mass organizations, and business, including animal food processors, manufacturers and suppliers of laboratory equipment, drugs and vaccines.

IMPLEMENTATION OF THE APEC ACTION PLAN

Strengthening Regional and International Cooperation

1. INTERNATIONAL FINANCIAL SUPPORT

- About 60 million USD for 'Avian Influenza Prevention and Pandemic Preparedness' 2007-2010, funded by the international community

2. REGIONAL SUPPORT AND COOPERATION

- Supports and cooperation received from UNDP, WHO, FAO, OIE, UNICEF, WB, ADB, EC, KFW... and Global AI Surveillance Program
- Cross-border cooperation promoted with neighboring countries

IMPLEMENTATION OF THE APEC ACTION PLAN

Measures for the Up-coming Time

1. To mobilize the whole politic system, forces, levels, particularly the local level, to participate in epidemic prevention and control;
2. To maintain activities of the Steering Committees for epidemic prevention at all levels;
3. To assign the People's Committees at all provincial/district/commune levels to stamp-out Avian Influenza locally, preventing the epidemic from widespreading;
4. To maintain active surveillance, early detecting, timely reporting and active prevention in all provinces;

IMPLEMENTATION OF THE APEC ACTION PLAN

Measures for the Up-coming Time (cont.)

5. To more frequently and continually enhance mass media, further propagandize to households, individuals, livestock grassroots on 4 measures for protecting humans from avian influenza infection, and measures for prevention in the community;

6. To maintain and strengthen environmental and livestock farm sanitation campaigns; pasteurizing the environment, breeding areas, merchandising market places, and poultry slaughter-houses;

7. To direct localities to coordinate with Ministry of Agriculture and Rural Development in order to strictly carry out anti-influenza vaccination for poultry, especially for new-born poultry;

IMPLEMENTATION OF THE APEC ACTION PLAN

Measures for the Up-coming Time (cont.)

8. To closely manage veterinary hygiene, set up veterinary quarantine stations at traffic points in order to control poultry transporting, purchasing and slaughtering;

9. Health sector is responsible for reserving medicines, equipments and chemicals in order to timely supply for epidemic control;

10. To direct and consolidate treatment network at all levels, esp. provincial/ditrict levels; strengthen training for guidance on diagnosis and treatment of human AI according to health sector regulations;

11. To reinforce monitoring, detection and preparation for preventing human infections.

IMPLEMENTATION OF THE APEC ACTION PLAN

Measures for the Up-coming Time (cont.)

International Cooperation:

- To closely cooperate with countries in region & international organizations in exchanging information and implementing epidemic control activities;
- To appeal to international agencies, esp. WHO, UNDP, FAO, UNICEF, for issuing policies and strategies, best practices, funds and equipments for epidemic control and for studying and production of human anti-A(H5N1) influenza vaccine.

IMPLEMENTATION OF THE APEC ACTION PLAN

Future Priorities in the Health Sector

1. Maintaining participation of NSCAI;
2. Improving technical quality of the surveillance and response system;
3. Improving technical quality and efficiency of curative care preparedness;
4. Strengthening behavior change communication in health facilities and the community;
5. Strengthening preventive health system at local levels;
6. Supporting research on epidemiology and vaccine development;
7. Enhancing regional and international coordination and cooperation.


THANK YOU FOR YOUR
ATTENTION !

Session II:

Achievements and Obstacles in Implementing the Action Plan

Implementing the Action Plan

By Dr. Ronald LAM

Department of Health, Hong Kong, China

Implementing APEC Action Plan - Hong Kong , China experience

Dr Ronald Lam
Department of Health
Hong Kong, China

7-8 May 2007

Previous HPAI Outbreaks among poultry

- 1997
- 2001
- Early 2002
- Late 2002
- Early 2003

2

Past avian influenza human infections

H5N1

-

Year	No. of patients	Local/imported	No. of deaths
1997 2003	18 2	Local Imported	6 1

H9N2

-

Year	No. of patients	Local/imported	No. of deaths
1999	2	Local	0
2003	1	Local	0
2007	1	Local	0

3

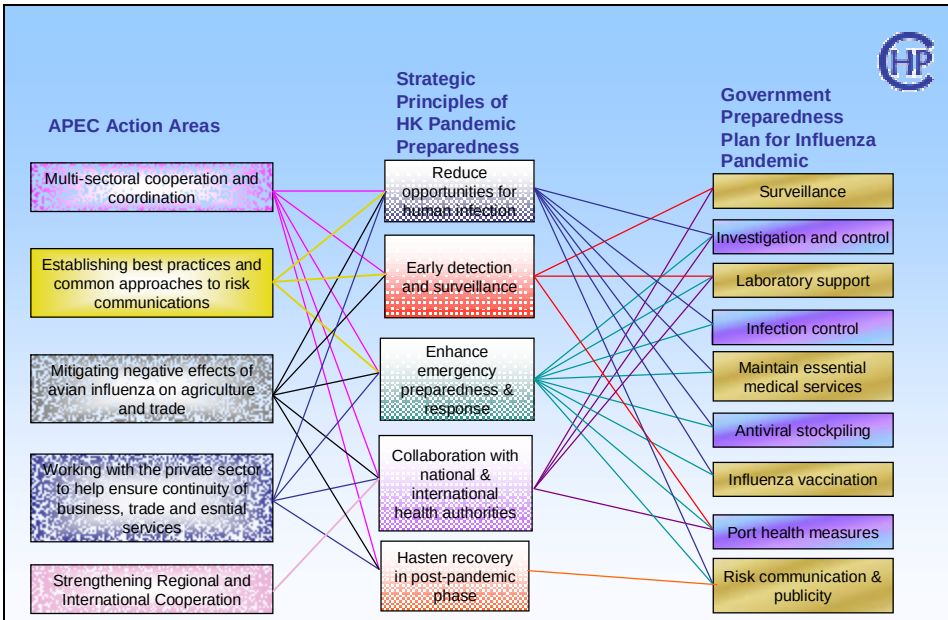
H5N1-infected wild birds in 2007

Top Political Commitment from HKSAR Government

Mr. Donald Tsang, the Chief Executive of Hong Kong, China, chaired the Emergency Response Level Steering Committee meeting during Exercise Poplar on 24 Nov 2005

Mr. Donald Tsang, the Chief Executive of Hong Kong, China, visited the Emergency Response Centre on 16 Mar 2006

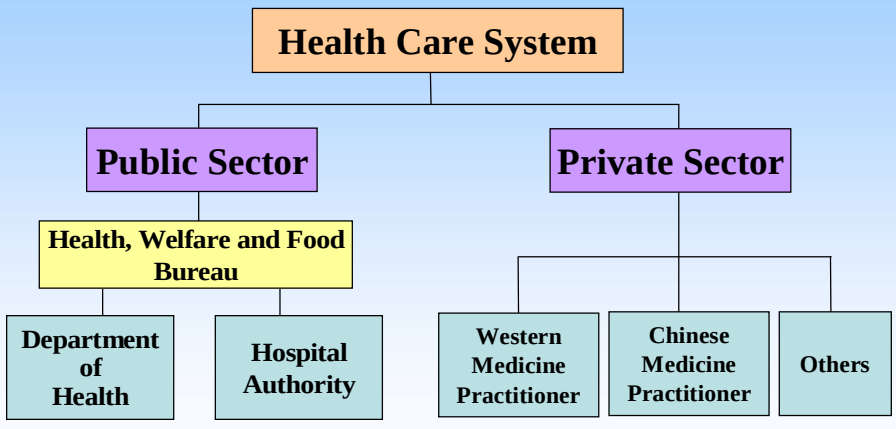
5



Multi-sectoral cooperation and coordination

7

Health Care System



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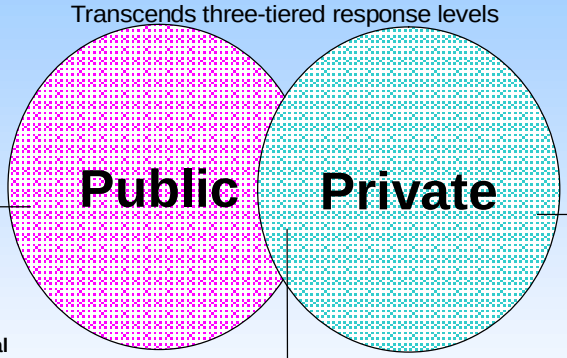
Health sector plan: public- private collaboration

Integrated public and private response
Transcends three-tiered response levels



Designated Medical Clinics

Public health actions

- **Epidemiological investigations**
- **Quarantine**
- **etc**

Maintain routine service

Surge capacity pool

Interface:

Surveillance

Clinical Service reprovision

Infection Control Training

Risk Communication

Surge Capacity

- Establish mobilization mechanism
- Provide tailor-made training schemes:
  - Doctors
  - Nurses
  - Pharmacists
  - Paramedical professionals
  - Social Workers
  - Non-governmental organisations

10

Challenges

Survey findings:

Concerns over volunteer service by private medical professionals

Main issues identified
1. Infection control
2. Timing of engagement
5. Insurance and legal liability

11

Improvement

- Exemption of registration in public health emergencies
- Review employment policies
- Set up risk communication channels

12

Mitigating negative effects of avian influenza on agriculture and trade

13

Objective and policy

- Objective
  - to minimise opportunities for human infection.
- Policy
  - to separate humans from live poultry and to minimise the contact between the public and live poultry.

14

New measures

- Reduce the number and density of market stalls, licences & tenancies of poultry farmers & wholesalers through a voluntary buy-out package by extra-gratia payment
- Ban keeping of backyard live poultry
- Enhance pet bird shop inspection

15

Long –term measures

- Central slaughtering plant
- Compulsory termination policy

16

Challenges

- Resistance from Trade
- Unemployment and livelihood
- Cultural practices of using freshly slaughtered chickens

17

Improvement

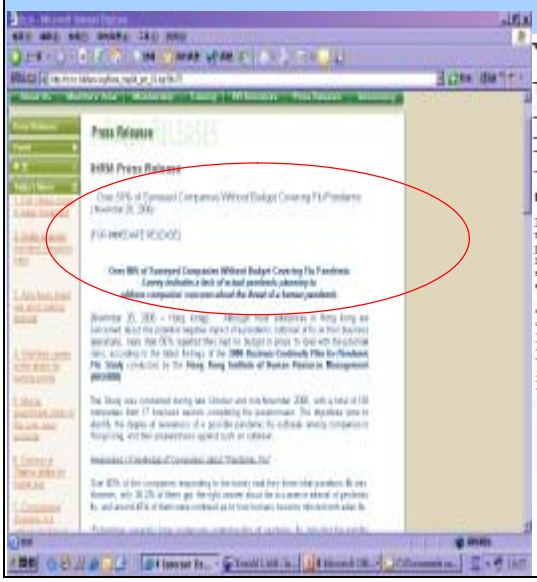
- Public consultation with Trade, professionals, the public, Legislative Council
- Compensation packages & special grants/loans
- Retraining schemes for employees
- Pilot scheme on central slaughtering

18

Working with the private sector to help ensure continuity of business, trade and essential services

19

Problems : business continuity preparedness (BCP)



Workers in the dark on plans for pandemic

Mary Ann Benitez

Just one in 10 employees is aware of their company's flu preparedness plan and would be able to implement it should an outbreak occur, a survey by the American Chamber of Commerce has found.

Yet two-thirds of the 80 senior executives questioned in the survey said they were confident their companies could respond effectively to a flu pandemic. Results of the survey, conducted after a bird flu seminar on November 29, were released yesterday.

Source: South China Morning Post

Our Actions to Support BCP

Meetings and briefings on BCP to business sectors / industries

- Utility
- Banking and Finance
- Telecommunications
- Media
- Pharmaceutical
- Transport
- Mortuary
- Health
- Travel and Tourism
- Aviation
- Food and supply
- Hotel

Infection Control

- Forums and workshops
- Guidelines and consultation

21

Our Actions to Support BCP

- Professional advice from the Government: BCP should be developed with reference to the three-tier response system of the Government's Preparedness Plan for Influenza Pandemic.

Antiviral stockpiling guideline to enterprises

BCP pamphlets to employers and enterprises

22

More and more enterprises in HK are developing BCP upon our advice

23

Participate in Joint Exercises and Drills

Examples of joint exercises on avian influenza

- March 2006: Airport Authority & Airline
- March 2007: Private transport sector

24

Establishing best practices and common approaches to risk communications

25

Accuracy of Information
—
Speed of Release

Empathy
+
Openness

CREDIBILITY

+

TRUST

=

Successful Risk Communication

Barbara Reynolds. Crisis and Emergency Risk Communication. 2002

26

Risk communication infrastructure

To response quickly and effectively

- Clear command and co-ordination structure
- Command/ co-ordination/ communication centres

Risk Communication Centre

Emergency Response Centre

Outbreak Intelligence Centre

Emergency Hotline Centre

27

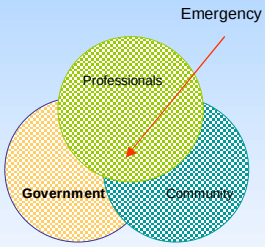
Mass Media as partner

- Daily briefings
- Media training
- Designated spokespersons
- Risk communicators
- Different channels of communication

28

Challenges ahead

- Sustain community awareness
- Ethical allocation of scarce resources
- Regulation, Intellectual Property and Liability
- Changing science of avian flu



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Thank you

Challenges and Difficulties in Implementing the Action Plan

Dr. Erna Tresnaningsih Suharsa
Director for Zoonosis Disease Control,
Directorate General of Disease Control and Environmental Health,
Ministry of Health, Indonesia

INDONESIA

CHALLENGES AND DIFFIFULTIES IN IMPLEMENTING THE ACTION PLAN OF PREVENTION AND RESPONSE to AVIAN and INFLUENZA PANDEMICS

Hanoi, Vietnam 7-8 May 2007

GENERAL CHALLENGES

- AI is a new disease, lower understanding among community and decision makers, early symptom likely seasonal influenza/ILI, no rapid diagnostic kit with highly sensitivity and specificity.
- Limitation of resources (personnel, logistic, finance)
- Big country (archipelago country) with various social, ethnicity, economic and cultural background **à** coverage <

GENERAL CHALLENGES

- Decentralization era and autonomous era in the district level (33 prov, 454 districts).
- Anticipation of AI & Pandemic Influenza has to compete with recent emerging problems/ disasters in term of budget allocation and attention

ANIMAL HEALTH CHALLENGES

- Control in back yard farming in city & village areas due to chickens is a source of income of the community.(as result of government campaign on income generating for family planning program)
- Slaughtering poultry in wet market and in home.
- Lack of infra structure in animal health in provincial level and especially in district and sub district level.
- Lack of veterinary authority and human resources especially in active surveillance (PDS/PDR)
- Vaccination: low coverage, completeness and availability of vaccine and lower of operational cost.
- Lack in poultry traffic control and quarantine inter city, provincial and inter island.
- Regulation especially poultry industry system, and back yard farming among community in district level.

PUBLIC HEALTH CHALLENGES

- Lack of early diagnosis & prompt treatment (due to no rapid test /diagnostic & late in hospitalization **à** average 5 days from onset).
- Weakness in integrated surveillance between animal and human although the guide line already available. (no integrated report of epidemiological investigation & response in outbreak of AI)
- Limitation of hospital equipment for 100 referral hospital of AI.
- On going process for developing 2 BSL-3 Laboratory in Jakarta and 8 regional laboratory of AI with PCR examination capacity.

PUBLIC AWARENESS

- Limited public awareness due to limitation in public awareness campaign or risk communication.

  à Need harmonization of messages and intensify, regularity, sustainability of campaign.

- 65 % respondent aware of bird flu consider it only affect “other regions” and not their own.

  75 % respondent knows bird flu but has no planned to do anything to curb it spread


TERIMA KASIH, SYUKRON
THANK YOU VERY MUCH

Lessons Learned Review:
Response to the Avian Influenza Epidemics in Viet Nam

Hoang Van Nam and Do Huu Dung

Department of Animal Health,

Ministry of Agriculture and Rural Development (MARD), Viet Nam

Background

From the first confirmation of HPAI in Vietnam in December 2003, there were four major waves of epidemic disease with continuing sporadic outbreaks in between these waves. HPAI has caused the death of millions of poultry, as a result of infection and of control measures. Humans have also been infected. In Viet Nam up to November 2005, there have been 93 confirmed human cases, 42 of these fatal. After many months in which almost no outbreaks of HPAI were reported, a series of outbreaks in late 2006 and early 2007 indicated that there is persistent circulation of virus both in the south and the north of the country. Outbreaks have been identified always in unvaccinated flocks, particularly in ducks in the South and chickens flocks in the North.

Viet Nam is currently moving towards strategies aimed at control and risk reduction over a longer time scale. These include different strategies using vaccination and strategies aimed at changing the poultry husbandry and marketing system. These latter will probably have greatest effects on the smallholder commercial and backyard poultry producers. Control measures must have a sound epidemiological basis, but should also take account of stakeholder issues. As serious as the repercussions of AI were, and continue to be, management of the outbreak also provided a valuable opportunity to learn from experience. The objective of this review was to: i) learn the most from the experience; ii) avoid repetition of errors and emulate success; and iii) identify potential improvements that may be implemented and institutionalized for response and management of future outbreaks.

Summary of Lessons Learned

This paper presents the lessons learned analysis according to the observations of the Department of Animal Health. The lessons learned focus of this review means that more detailed information is presented regarding identified areas for improvement. A summary of findings is presented below.

Strong Commitment and Leadership from the Government

Since the start of the epidemic, the Government has established the National Steering Committee for Avian Influenza Prevention and Control (NSCAIPC) that had the ultimate accountability for response to the outbreak. One measure of effective leadership was the fact that the NSCAIPC's risk management decisions (e.g. declaration of the control area, depopulation etc.) were supported by the industry, and that consumer and market confidence in Vietnam poultry products were maintained throughout the crisis.

It was recognized that Vietnam had gained a good experiences in responding to a large-scale, infectious foreign animal disease outbreak since the Severe Acute

Respiratory Syndrome (SARS) in 2003. These experiences helps very much the decision making process in containing HPAI outbreaks.

Political systems from Central to grassroots levels were called upon to actively joint the fight against AI. Several missions led by Cabinet Members were sent to the field to supervise and inspect the implementation of disease control and prevention measures.

It is also noted that the DAH's existing exotic animal disease response plans did not fully address the zoonotic aspect of some animal diseases and therefore did not incorporate collaborative arrangements with public health authorities.

Certain elements e.g. disposal strategies, laboratory testing, movement controls may have worked more effectively had they been better planned and exercised prior to the AI outbreak. The shared experience of the AI response has meant that the ability to engage partner organizations in planning and preparedness exercises is now greater than it would have been prior to the crisis.

Early Detection and Response

Despite several challenges experienced with information management systems, the DAH was able to meet critical information requirements using the available tools. The emergency reporting system using telephones and faxes was utilized and, at a later stage in the outbreak, the online reporting system (TADinfo) was piloted to assist in HPAI information management. GIS mapping which was integrated in the system proved to be a useful information management tool. However, backlogs in data entry and a lack of user familiarity with the system prevented its successful application. Further training for regional and provincial staff on the use of TADinfo system is planned to be conducted in mid-2007. Overall, it was recognized that a better anticipation of information needs and coordination of reporting activities could improve information flow. Improved information sharing protocols may be required in the future to facilitate the accurate and timely release of information.

A hotline dedicated to reporting of suspected avian influenza has been set up. The line is free of charge for the callers and its existence has been published in DAH’s website and through various media channels, newspapers for instance.

Early response plays a key role in disease control in general, for HPAI outbreak containment on particular. Initial compensation policies did not reflect current market values of various types of farmed animals, therefore, it was revised, taking into account the recommendations of an FAO’s review.

Outbreak containment protocols were also modified in light of new knowledge and experiences.

Vaccination

Recognizing vaccination as the primary method for preventing influenza and its complications, vaccination against AI was employed as an additional measure in Vietnam since August 2005 with the aim to reduce number of outbreaks in poultry and preventing cases in human. Overall, the vaccination program has achieved its primary objectives with no human cases since late 2005.

The vaccination scheme with two main campaigns per year for the last 2 years is now being reviewed. Recognizing the need for mechanisms to make vaccine available and accessible for farmers, so as, they can have their birds vaccinated at the recommended age.

Information, Education and Communications

Experience during the last three years also illustrated the critical role communication plays in raising public awareness. Information on disease situation has been communicated regularly through a variety of media as the situation evolved with the aim to disseminating clear, updated information to the public. Daily updates on disease situation and progress of vaccination have been published on DAH's website, available both in Vietnamese and English.

Various IEC materials were produced and distributed using diverse media to reach diverse audiences. A National and several provincial telephone hotlines, for HPAI were established.

Education for farmers, consumers and traders help to change their behaviors, so as to protect their own poultry and their family health.

Pandemic Preparedness

One lesson learned was that emergency preparedness plans help coordinate local response. In August 2005 MARD released its Avian Influenza Pandemic Preparedness and Response Plan. This draft document contains the basis for a coordinated national strategy to prepare for and respond to a pandemic.

It was also recognized that control measures could have been imposed far better if a well-designed preparedness plan was available prior to the first outbreak. There is still lack of Standards Operating Procedures (SOP) which could practically be implemented by field staff, for example, SOPs for humane culling and biosecurity for difference production sectors.

International support

It is clear that Government of Vietnam has been highly proactive in the steps it has taken to control HPAI. Nevertheless, there has been considerable donor assistance

in the livestock sector. FAO was quick to provide limited assistance through regional and national projects, followed by a collaborative programme with World bank, all initiated in 2004. A UN Joint Program was initiated in 2005 with funds from several donors. A Japan Trust Fund project is providing support through FAO and OIE. A credit facility through World Bank will fund a four-year project commencing in mid-2007.

Various bilateral assistances were given to Vietnam since the start of the epidemic, namely from the Government of the Netherlands, the Government of Czech Republic, etc.

Cooperation with international reference laboratories has been effectively established and maintained, particularly in the field of further analyses on avian influenza virus isolation, sequencing, as well as on vaccination efficacy trials.
All the above-mentioned projects have contributed significantly in the control and prevention of HPAI in Vietnam, especially for capacity building at national and regional levels.

Conclusion

This review has identified a number of areas where additional focus by the NSCAIPC may bring about improvements in the effectiveness of future responses. The identified areas for improvement pertain primarily to emergency planning and preparedness, as well as strategies to improve data management and information flow. However, it important to note that overall, the effort to control the outbreak of AI was widely viewed as being successful. It was recognized that considerable effort was made by all parties to respond to the outbreak, and that as a result, the spread of the disease was contained. Consumer and market confidence in poultry products were maintained.

DEPARTMENT OF ANIMAL HEALTH

Ministry of Agriculture & Rural Development

Lessons Learned Review: Response to the Avian Influenza Epidemics in Viet Nam

APEC Workshop

Implementation of APEC Action Plan on the Prevention and Response to Avian Influenza Pandemics: Progress Review and Building Capacity for Future Work

7-8 May 2007, Hanoi, Vietnam

Hoang Van Nam and Do Huu Dung
Department of Animal Health
Ministry of Agriculture and Rural Development (MARD)
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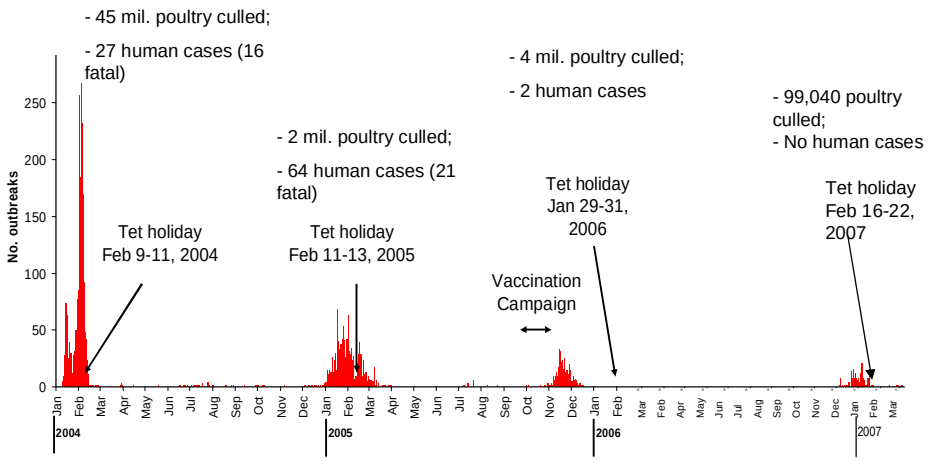
Outlines

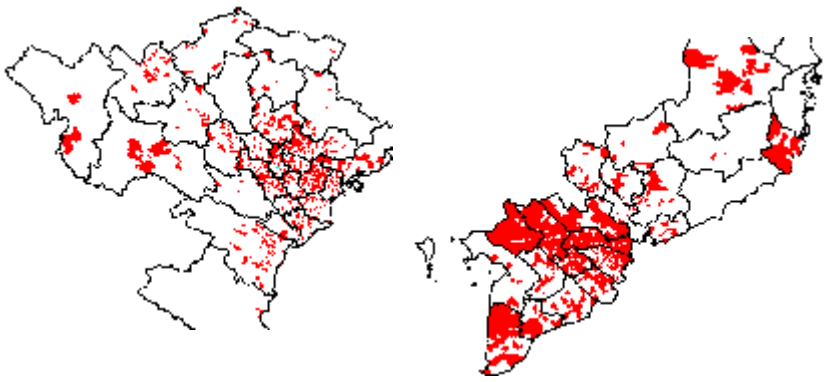
- Background;
- Summary of Lessons Learned:
  - *Strong Commitment and Leadership from the Government*
  - *Early Detection and Response*
  - *Vaccination*
  - *Information, Education and Communications*
  - *Pandemic Preparedness*
  - *Donor support*
- Conclusion

Background: The Course of the Epidemic

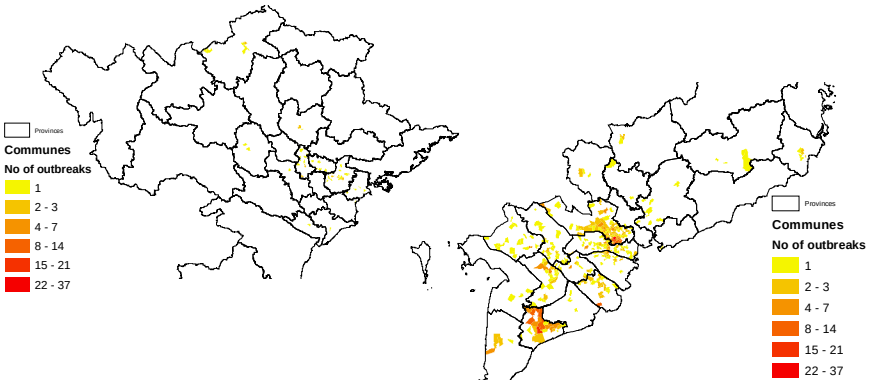
Temporal Pattern of 2003/4 (1st), 2004/5 (2nd), late 2005 (3rd) and 2006/7 (4th) AI Epidemics



Background: Affected Communes - 1st wave (2003-2004)



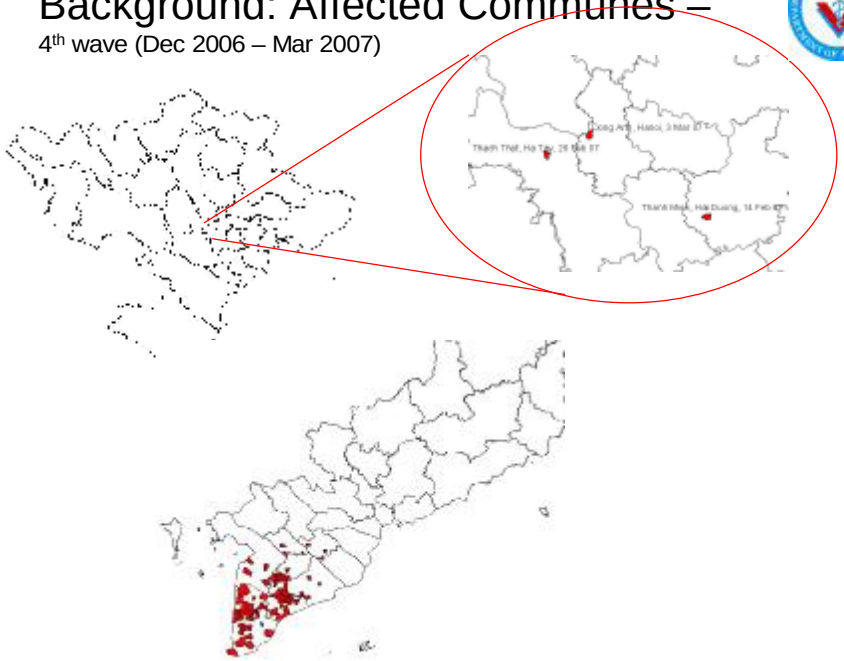
Background: Affected Communes - 2nd wave (2004-2005)



Background: Affected Communes – 3nd wave (late 2005)

Background: Affected Communes –

4th wave (Dec 2006 – Mar 2007)



Background: Current situation- Avian Influenza

- No human cases for over a year.
- No poultry outbreak reported for almost a year until Dec. 2006
- A series of outbreaks in late 2006-early 2007 indicated that there is persistent circulation of virus both in the south and the north.
- Outbreaks have been identified always in unvaccinated flocks, particularly in ducks in the South and chickens flocks in the North.

Summary of Lessons Learned

Strong Commitment and Leadership from the Government

- Establishment of the National Steering Committee for Avian Influenza Prevention and Control (NSCAIPC);
- Political systems from Central to grassroots levels were called upon, resulted in:
  - § Clearer line of command;
  - § Funds released quicker;
- Several missions led by Cabinet Members
- Experiences in responding to (SARS) in 2003.

Early Detection and Response

- Emergency reporting system using telephones and faxes;
- Online reporting system (TADinfo) piloted to assist in HPAI information management;
- AI Reporting Hotline set up;
- Compensation policy revised;
- Outbreak containment procedures modified in the light of new knowledge and experiences.

Vaccination: Types of vaccine used

- Campaign vaccines:
  - Inactivated heterologous H5N2 vaccines (manufactured by Harbin, used for chickens, now terminated),
  - Inactivated homologous H5N1 vaccine (manufactured by Harbin, initially used for ducks, now for both chickens and ducks), and
  - Merial H5N9 vaccines for muscovys (just introduced early 2007)
- Vaccines for breeder/commercial farms:
  - Inactivated water in oil emulsion heterologous H5N2 vaccine (Nobilis, Intervet).
  - Trovax AIV H5 –Live Fowl pox vector vaccine H5 subtype

Vaccination: Scope

- Now focused on 33 provinces in high risk areas (Red River and Mekong River deltas) with vaccination of all long-lived poultry and all poultry in villages
- Vaccination of high risk poultry in other provinces
- Other minor poultry not vaccinated due to insufficient information on response to vaccination
- In 2005, some 166.3 million doses given to chickens and 78.1 million doses to ducks
- 2006: 368 million doses given to chickens and ducks (for 2 rounds)
- Vaccination Plan Phase II 2007-2008 approved; 1st round of vaccination for 2007 started mid-March, to be completed in May.

Information, Education and Communications

- Communication plays the critical role in raising public awareness;
- Clear, updated information was disseminated to the public regularly through mass media;
- Daily updates on disease situation and progress of vaccination published on DAH's website, available both in Vietnamese and English.
- Various IEC materials were produced and distributed using diverse media to reach diverse audiences. A National and several provincial telephone hotlines, for HPAI were established.

Pandemic Preparedness

- One lesson learned was that emergency preparedness plans help coordinate local response.
- In August 2005 MARD released its Avian Influenza Pandemic Preparedness Plan;
- Control measures would have been done better if a preparedness was available prior to the first outbreak;
- Practical SOPs for humane culling, biosecurity, etc. are needed.

International support

- FAO was quick to provide limited assistance through regional and national projects;
- A World Bank Project (Phase I) initiated in 2004;
- A UN Joint Program Phase I initiated in 2005 with funds from several donors; Phase II to start.
- A Japan Trust Fund project is providing support through FAO and OIE.
- A credit facility through World Bank will fund a four-year project commencing in mid-2007.
- Various bilateral assistances.

Conclusion

The identified areas for improvement pertain primarily to:

- Emergency planning and preparedness;
- Capacity building (human resources) for a longer-term strategy;
- Strategies to improve data management and information flow.

DEPARTMENT OF ANIMAL HEALTH

Ministry of Agriculture & Rural Development

Thank you for your attention!

PAHI: Partnership for Avian and Human Influenza, Viet Nam

David Payne

Partnership and Coordination Specialist,

UNDP / PAHI

Joint Government - United Nations Programme to Fight Highly Pathogenic Avian Influenza (HPAI)

PAHI: Partnership for Avian and Human Influenza, Viet Nam

David Payne
Partnerships and Coordination Specialist, UNDP / PAHI

Implementation of APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics
Hanoi, 7 May 2007

National Coordination mechanisms for AHI

Prime Minister
Deputy Prime Ministers

National Committee for Avian Influenza (NSCAI)

Chair: MARD Minister
Vice-Chairs: MARD & MoH Vice Ministers
Members: related ministries

Focus on Avian Influenza
Tasked with AHI donor coordination

National Committee for Influenza H5N1 in Humans

Chair: MoH Minister
Members: MARD & related ministries

Focus on emerging diseases (initially established in response to SARS)

National Preparedness Plan – approved September 2005
The Green Book – approved May 2006

Steering committees replicated at lower levels
(province, district, etc)

Key national documents

National Preparedness Plan
(approved Sept 2005)

Defines roles and responsibilities
in case of a human pandemic

Integrated National Operational Programme 2006-2010
(approved May 2006)

Integrated National Operational Programme 2006-10: "The Green Book"

- Builds on the "Red Book" presented at the Beijing AHI Conference, Jan 06
- Defines medium-term response actions and resource needs for 2006-10
- Development was led by a Govt taskforce with significant support from UN system, World Bank
- Joint donor appraisal organized in April 06
- Endorsed by the Govt at the end of May 06
- Endorsed by Donors as the framework for all AHI assistance on 2nd June 2006

Integrated National Operational Programme 2006-10: "The Green Book"

Enhanced Coordination:	$31m
- National Preparedness	
- Policy and Strategy Development	
- Coordination including PAHI	
- Public Awareness Raising	
HPAI Control in the Agricultural Sector:	$116M
Influenza Prevention & Pandemic Preparedness in the Health Sector:	$102m
TOTAL ESTIMATED COST	**$250m**

ODA for AHI in Viet Nam

Total ODA for AHI (commitments/indications to date)	$105m
Estimated OPI budget	$250m
Indication of expected Govt funding (central and provincial budgets)	50%
Donor support to the Green Book (commitments/indications to date)	$70m
ODA financing gap (approx)	$55m

PAHI: Partnership for Avian and Human Influenza

- Builds on existing cooperation between Government, Donors, NGOs and other stakeholders
- Established to support implementation of the Green Book
- Partnership Framework signed on 1st November 2006:
  - ü **Government of Viet Nam** (MARD Minister for the National Steering Committee for AI)
  - ü **6 bilateral donors** (Australia, Canada, Denmark, Finland, New Zealand, USA) and the EC
  - ü **United Nations**: Resident Coordinator, Heads of UN Agencies
  - ü **World Bank, ADB**
  - ü **INGOs, Research Organisations**: PLAN, CARE, CRS, CIRAD
- Other key donors, NGOs plan to sign

Objectives of PAHI

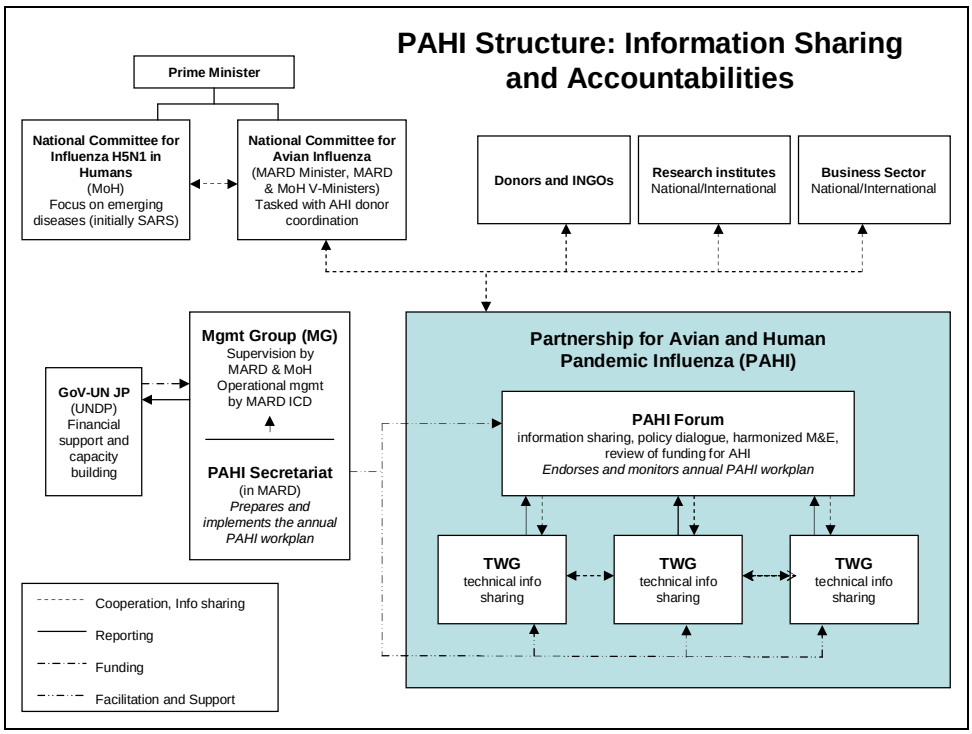
…to improve ODA efficiency as well as mutual accountability, the government and donors are establishing a voluntary PAHI in order to **facilitate implementation of the Green Book** as the medium-term country programme developed…

…with the **overall objective to reduce the health risk to humans from avian influenza** by:

- controlling the disease at source in domestic poultry,
- detecting and responding promptly to human cases
- preparing for the medical consequences of a human pandemic

Structure of the Partnership

- NOT the primary **national** coordination mechanism
- brings together multiple stakeholders – with a primary focus on information sharing, policy dialogue, coordination on financing and monitoring and evaluation **between national and international partners**



Functions of PAHI

- ***a forum for information sharing and exchanges with partners***
- ***discuss recommendations to the NSCAI and donors on ODA priorities and allocations***
- ***facilitate monitoring and evaluation (M&E) of the overall national programme, particularly the ODA-funded parts***
- ***support Viet Nam to share information and experiences with other countries within the region and more widely***

Functions of PAHI

a forum for information sharing and exchanges with partners

- annual high-level plenary meeting of PAHI members with the NSCAI
- regular PAHI meetings (quarterly? seasonal focus?)
- thematic working groups in support of OPI implementation
- other meetings, conferences, workshops
- information sharing within the PAHI membership & other stakeholders
  - newsletter
  - website
  - email list
  - sharing reports, publications, meeting minutes and other documents

Functions of PAHI

discuss recommendations to the NSCAI and donors on ODA priorities and allocations

- overall financing plan and resource mobilization overview for the Green Book maintained:
  - comprehensive matrix of donor projects/programmes and financial support
  - financing plan with GoV investments and international assistance according to the Green Book costing lines
  - identification of financing gaps against the Green Book costing and emerging needs
- annual high-level plenary meeting of PAHI members with the NSCAI to review financing and gaps

Functions of PAHI

facilitate monitoring and evaluation (M&E) of the overall national programme, particularly the ODA-funded parts

- consensus on an overall M&E framework for the Green Book – based on review and further development of Annex I of the Green Book
- discussions through PAHI and Thematic Working Groups on plans, progress, lessons learned and emerging issues for AHI in Viet Nam
- consolidation and dissemination of regular (semi-annual) monitoring and evaluation reports on Green Book implementation - incorporating inputs from:
  - PAHI members
  - thematic working groups

Functions of PAHI

support Viet Nam to share information and experiences with other countries within the region and more widely

- Forum and capacity support for sharing and consolidating lessons learned, monitoring and evaluation, research reports through PAHI members, TWG, etc
- Enhanced capacity for information-sharing

AHI Behaviour Change Communications Working Group

- Nov 2005:
  - Govt-UN Joint Programme established an IEC Working Group, facilitated by UNICEF together with GoV counterparts - MARD, MoH
  - organised multi-stakeholder workshop and agreed key messages
- 2006:
  - several workshops, key messages confirmed, activity plans shared, joint brainstorming on strategies and plans, consultation on development of communications materials with national and international experts
  - Green Book proposes to expand the IEC Working Group into a Technical Working Group under PAHI
- 2007:
  - PAHI establishment
  - IEC WG expanded as AHI BCC WG
  - enhancing joint work on M&E, overall research framework, etc.

Facilitation of PAHI

- a small **Secretariat** located in MARD
- **Overall supervision** of the Secretariat by a small management group (MG):
  - MARD and MoH International Cooperation Departments (ICD)
  - key technical departments of MARD and MoH
    - Department of Animal Health (DAH)
    - Vietnam Administration of Preventive Medicine (VAPM)
- **Operational management and accountability** with MARD ICD
- **Day-to-day supervision** by an assigned focal point from MARD ICD, with support from an assigned focal point in MoH ICD
- Support from an **International advisor**

Session III:

Future Actions to Enhance Avian and Influenza Preparedness and Required Capacity Building

Current Situation of Avian Influenza and Pandemic Preparedness in the Region and Recommendations for APEC

Dr. Hans Troedsson

WHO Representative in Viet Nam

Current Situation of Avian Influenza and Pandemic Preparedness in the Region and Recommendations for APEC

Dr Hans Troedsson
WHO Representative in Viet Nam

World Health Organization

Outline

- Current situation of avian influenza
- Step-wise intervention
- WHO recommendations

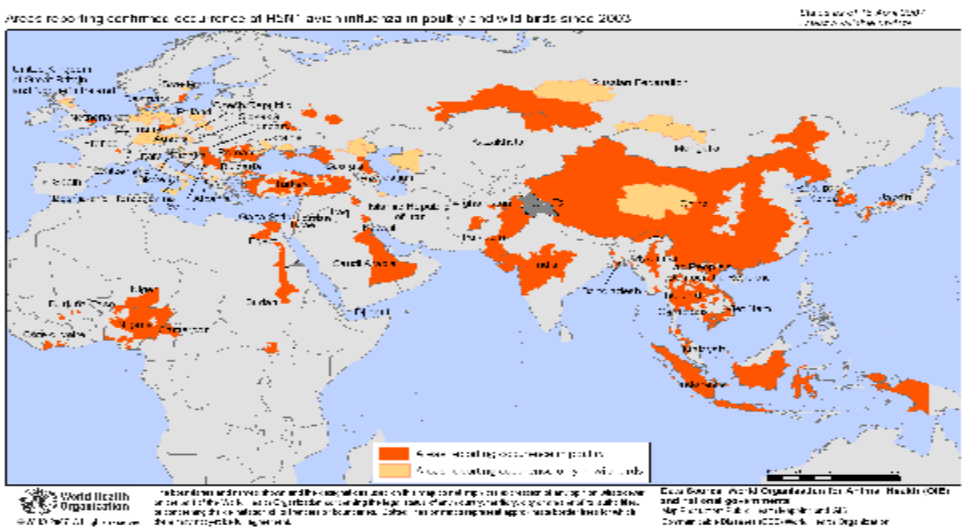
Avian Influenza: Current situation

- Avian influenza A (H5N1) virus has become firmly entrenched in many part of Asia
- AI outbreaks have been reported in poultry and wild birds in many countries, including APEC Member Economies, since 2003
- Human H5N1 infections continue to occur, with some instance of limited human-to-human transmission
- Pandemic threat is still serious and persists

WHO Western Pacific Region

World Health Organization

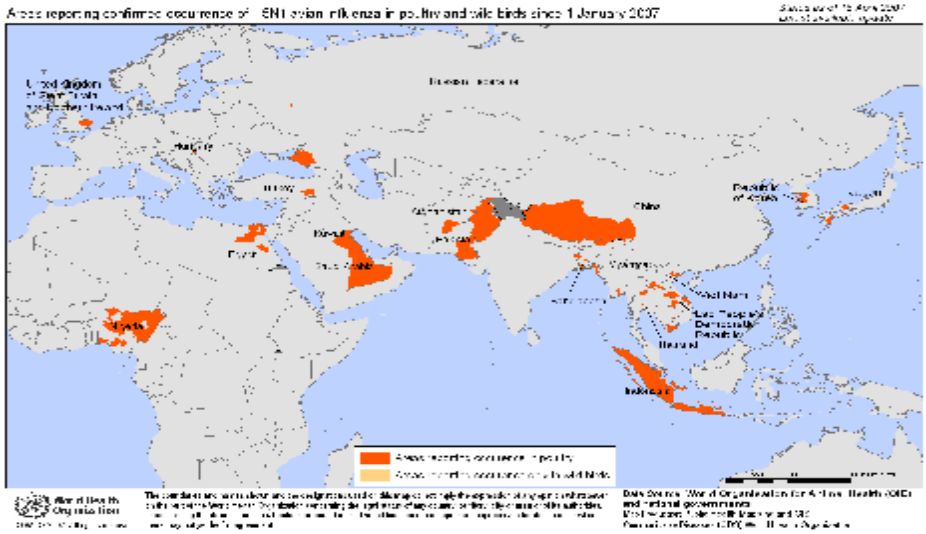
Areas reporting H5N1 outbreak in poultry and wild birds
(Since 2003, as of 16 April 2007)



WHO Western Pacific Region

World Health Organization

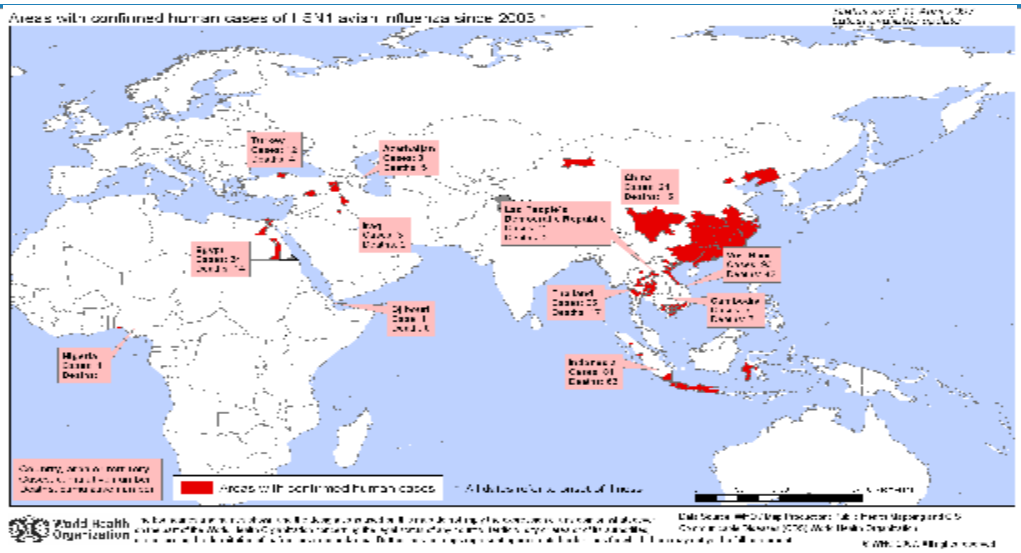
Areas reporting H5N1 outbreak in poultry and wild birds
(Since 1 Jan -16 April 2007)



WHO Western Pacific Region

World Health Organization

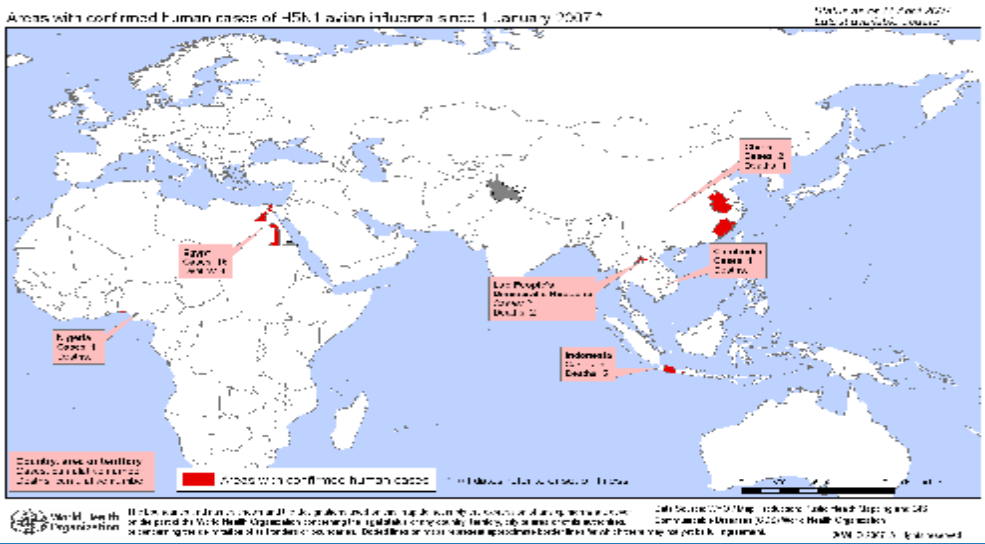
Areas with confirmed human cases of H5N1
(Since 2003 to 11 April 2007)



WHO Western Pacific Region

World Health Organization

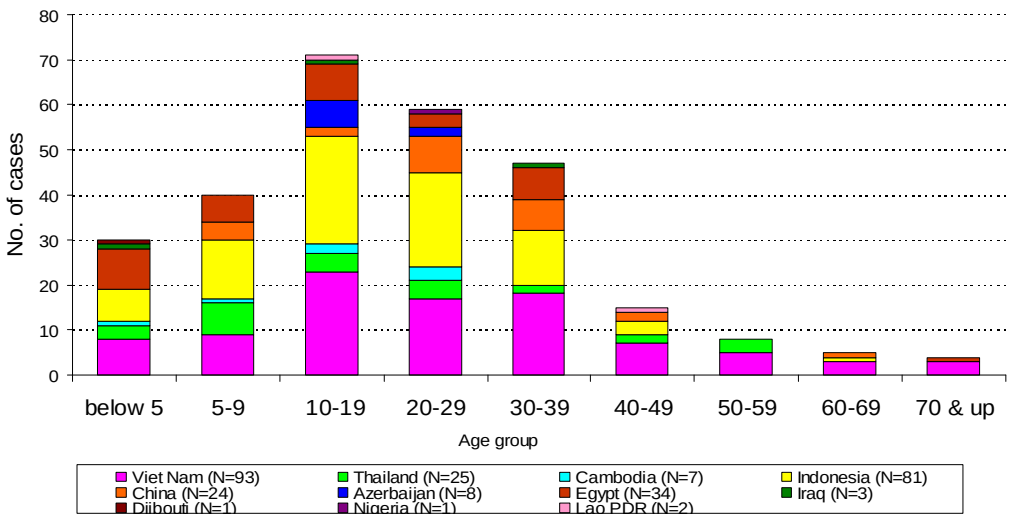
Areas with confirmed human cases of H5N1
(Since 1 Jan -11 April 2007)



WHO Western Pacific Region

World Health Organization

Human H5N1 Cases by Age Group and Country
(As of 11 April 2007)



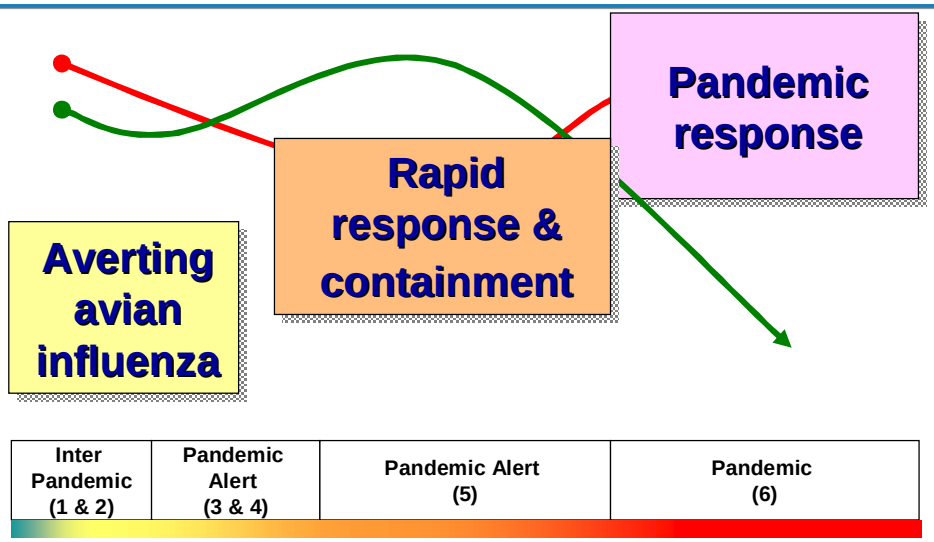
WHO Western Pacific Region

World Health Organization

Outline

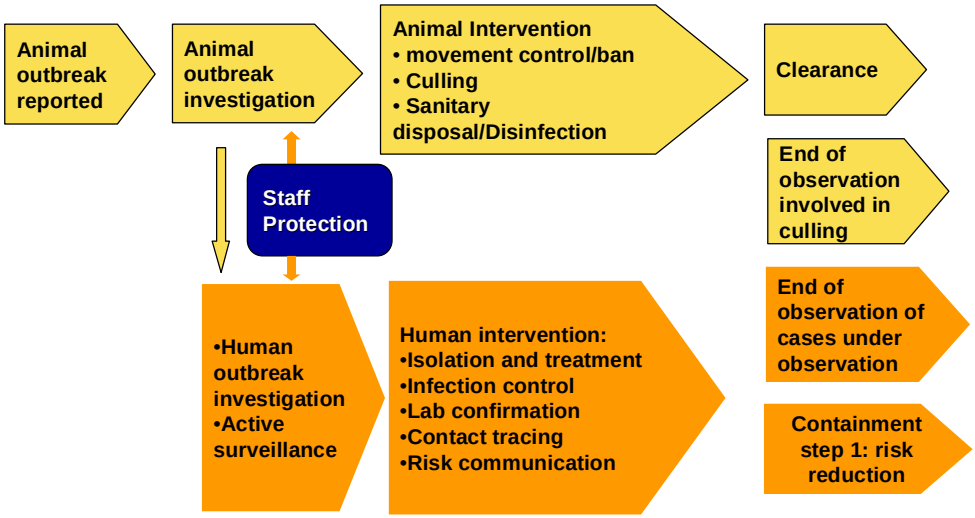
- Current situation of avian influenza
- Step-wise Intervention
- WHO recommendations

Phase-wise intervention



WHO Western Pacific Region
World Health Organization

Responding to avian influenza



WHO Western Pacific Region

World Health Organization

Rapid Response & Containment

STEP 0 Early detection, reporting and response

STEP 1 Assessment and decision making

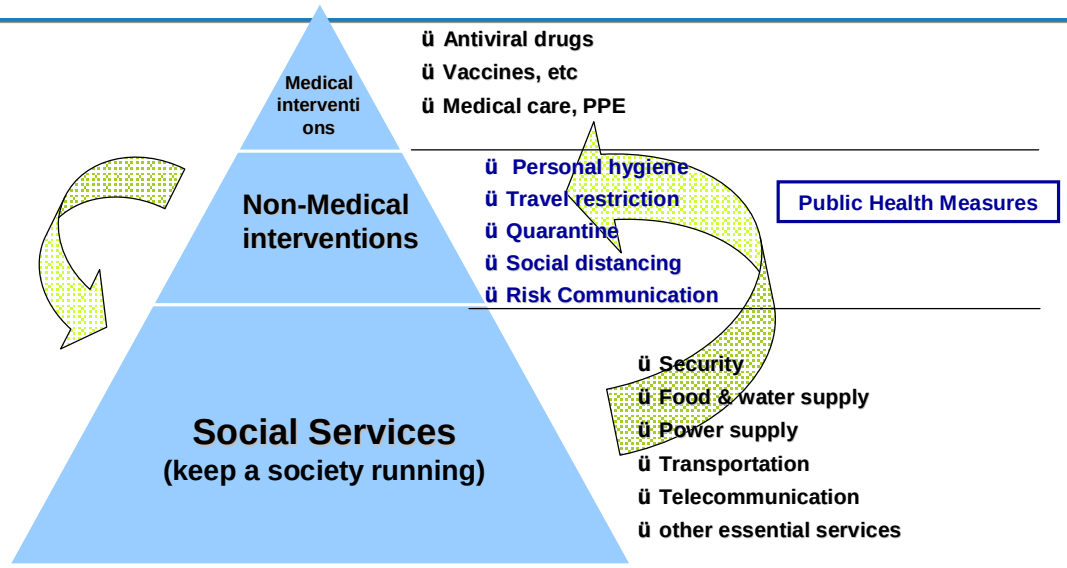
STEP 2 Containment operations

STEP 3 Monitoring and evaluation

WHO Western Pacific Region

World Health Organization

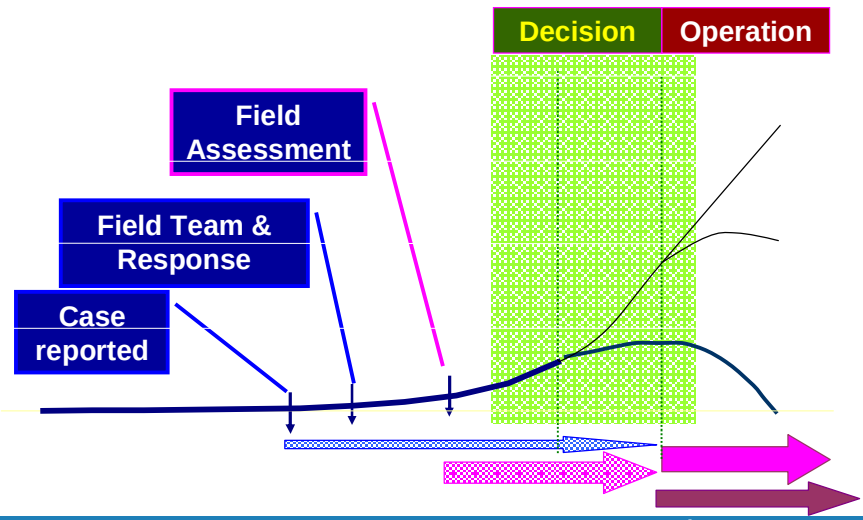
Pandemic Response



WHO Western Pacific Region

World Health Organization

Necessary steps and timeline



WHO Western Pacific Region

World Health Organization

Potential Impact of Pandemic

Livelihoods

- Food and income loss from poultry deaths/ culling & decreased economic activity

Human Health

- High illness & potentially higher death rates
- Overstretched health facilities
- Disproportionate impact on vulnerable

Rule of Law and Governance

- Increased demand for governance & security
- Higher public anxiety
- Reduced capacity due to illness & death

WHO Western Pacific Region

World Health Organization

Potential Impact of Pandemic

Humanitarian Needs

- Deterioration of coping & support mechanisms
- Interruption in public services
- Quarantine policies

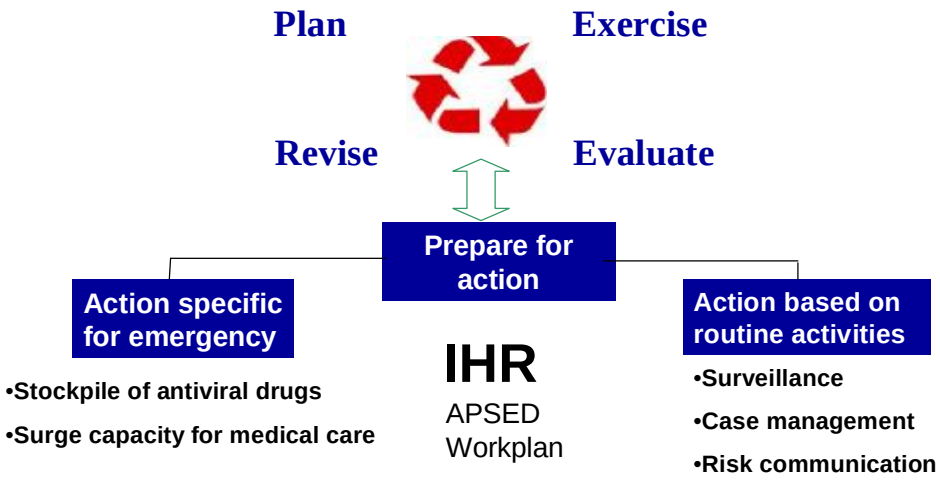
Economic Systems

- Trade & commerce disruptions
- Reduced availability of key persons
- Interruption of regular supply systems

WHO Western Pacific Region

World Health Organization

Exercise is an important part of preparedness process



WHO Western Pacific Region

World Health Organization

Outline

- Current situation of avian influenza
- Step-wise Intervention
- WHO recommendations

WHO Western Pacific Region

World Health Organization

Capacity building
- WHO recommendations (1)

- Actions and activities required for responding avian influenza and preparing for pandemic influenza should be implemented urgently by each country
- Future actions for AI and pandemic influenza should be taken to contribute to long-term and generic capacity building required under the IHR (2005)

IHR core capacity requirements

- Two capacity areas
  - Surveillance and response
  - Designated points of entry

- Member States are required to
  - assess the existing capacities and develop/implement plans of action as soon as possible (before June 2009);
  - achieve the required core capacities as soon as possible, but no later than June 2012 (in principle)
- WHO and other partners to support countries in building the core capacities

Capacity building
- WHO recommendations (2)

- In Asia Pacific Region, **Asia Pacific Strategy for Emerging Diseases (APSED)** have been developed and should be used as a common framework to strengthen the core capacity required for all EIDs, including pandemic influenza:
  - APSED endorsed by RCM in Sept 2005
  - As a bi-regional strategy to help countries to meet the surveillance and response core capacity requirements of the IHR (2005)

Five objectives of APSED

- Reduce the risk of emerging diseases
- Strengthen early detection of outbreaks
- Strengthen rapid response
- Strengthen effective preparedness
- Develop sustainable technical collaboration within the Asia Pacific Region

Lessons learned

- Do not withhold information
- Engage communities
- Encourage effective responses by governments
- Involve media
- Global action is critical
- Harness involvement of multiple actors

WHO Western Pacific Region

World Health Organization

UN System Views and Approach for Combating Avian and Human Pandemic Influenza Threats

Mr Koji Nabae

Avian and Human Influenza Regional Coordinating Officer,

United Nations System Influenza Coordination (UNSIC)

Asia Pacific Regional Hub

UN System Views and Approach for Combating AHI threats

Koji Nabae
Avian and Human Influenza Regional Coordinating Officer
United Nations System Influenza Coordination (UNSIC) Asia-Pacific Regional Hub
8 May 2007 APEC Workshop in Hanoi

1

Consolidated UN Action Plan

Avian and Human Pandemic Influenza (AHI):
Consolidated Action Plan for Contributions of the UN System

24 November 2006

Produced on behalf of
FAO, ICAO, ILO, IOM, OCHA, OIE, UNDP, UNHCR, UNICEF, UNWTO, WFP and WHO
by
UN System Influenza Coordinator (UNSIC)
UN Development Group
405 Lexington Avenue
Room CH 4162
New York NY 10174
+1 212 457 1746

- Sets out UN system activities and financial requirements up to December 2007
- Published on behalf of 12 Agencies;
FAO, ICAO, ILO, IOM, OCHA, OIE, UNDP, UNHCR, UNICEF, UNWTO, WFP and WHO

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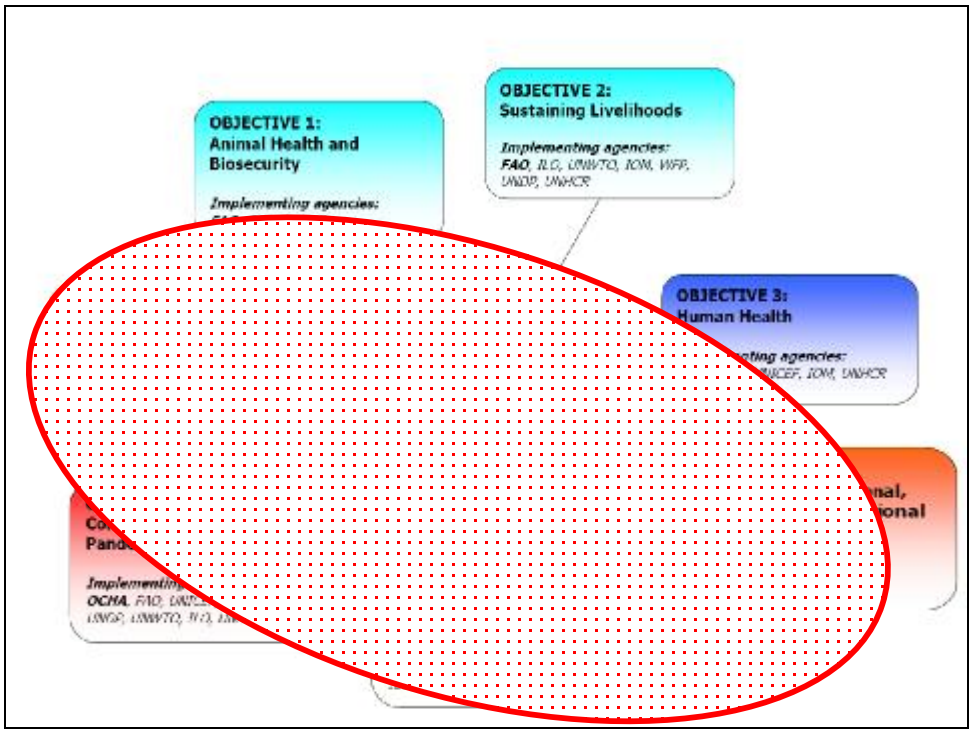


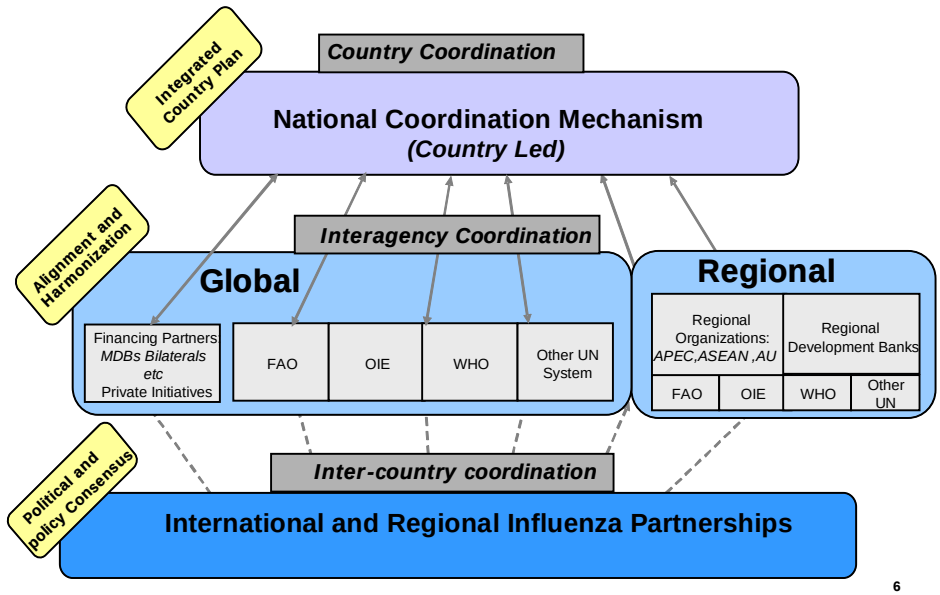
UN Action Plan Objective 4

Coordination of National, Regional and International Stakeholders

- UNDP, OCHA, WFP, UNSIC

4

Coordination Framework (01/2006)



6

UN Coordination on Avian and Human Influenza: Regional Level

Coordination by UNSIC through the Regional Hub Teams

UNSIC (NY)

Regional Team

Regional hub supported by UNDP/OCHA

Resident Coordinator

UN Country Team

Technical Coordination

FAO Regional Team

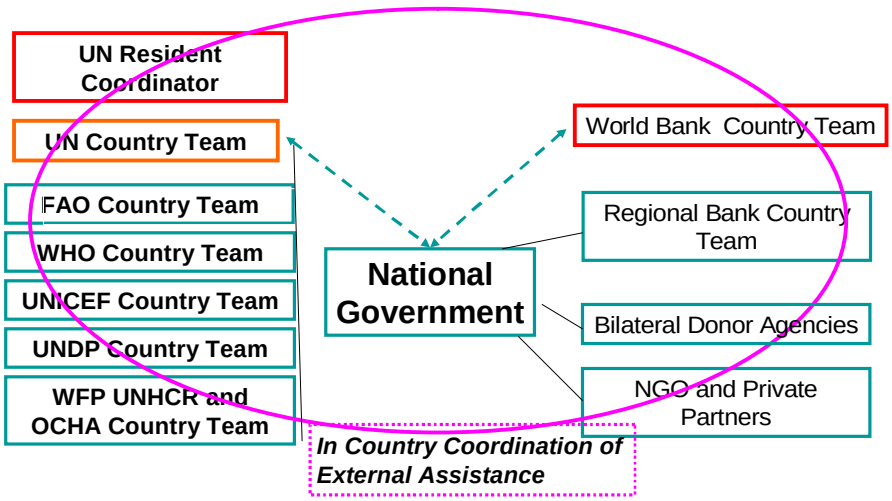
WHO Regional Team

FAO and WHO are members of the UN Regional Team

UNCT coordinated by the RC with support from UNSIC with UNDG/OCHA

6

UN Coordination on Avian and Human Influenza: Country Level



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Coordination Study Outcome

- June 2006 Vienna Senior Officials Meeting
- Better coordination of external assistance for influenza action
- World Bank and UNSIC initiative
- Independent Study
- GTZ financial support

Guiding Principles for effective Coordination of AHI Activities

I. National Ownership and Leadership

1. High-level political leadership
2. Appropriate balance between developmental and emergency response to AHI
3. National coordination authority

II. Alignment

4. Financial and technical support based on nationally developed plans
5. Building national capacity

9

Guiding Principles for effective Coordination of AHI Activities

III. Harmonization

6. Maximize use of common arrangements at country level
7. Donor community to designate one person as coordinator of external assistance on AHI
8. Greater consistency of approach among UN and WB at corporate and country levels
9. Incentives to reward coordination efforts

10

UN Action Plan Objective 5

Public Information and Communication to Support Behaviour Change

- FAO, OIE, WHO, ILO, UNWTO, UNICEF, UNHCR, WFP, IOM

11

Risk Communication for behavioral change Achievements

- ü **Advocacy** with governments leading to enhanced inter-sectoral partnerships
- ü Evidence-based planning for **behaviour change communication strategies**
- ü Key **prevention messages defined** (*Report, Separate, Wash, Cook*) and disseminated widely
- ü **Materials and tools developed and shared** globally through internet resources centre [www.unicef.org/influenzaresources]
- ü National and international **media sensitised** on prevention

http://www.unicef.org/influenzaresources/

Media training

- Working with journalists in their local languages to foster accurate, balanced and responsible reporting on avian influenza
- More than 250 regional, national and local journalists around the region have received UNICEF-supported training
- 2007-2008: Ongoing capacity building initiatives for timely and appropriate responses to ensure quality public information

14

Risk Communication for behavioral change looking ahead

- Ø Ongoing support for strategic planning, implementation of communication campaigns, monitoring and evaluation of behaviour change campaigns.
- Ø Raising awareness and promoting priority behaviours that will have the greatest impact in controlling avian influenza in animals, reducing human exposures, and containing the risk of a pandemic emerging or spreading.
- Ø Sharing information on how people can best protect themselves at different stages against avian and pandemic influenza.

JAPAN unicef

FAO/OIE International Animal Health Communicators' Roundtable

- 16-19 April 2007 in Rome, FAO/OIE/WHO/UNICEF/UNSIC, govts and academics

Recommendations include;

- Ensure that **strategic communication is integrated into the veterinary infrastructure and policy response** at country level, and to gain international support for this where required
- **Develop a comprehensive communication action plan** to address the animal health aspects of highly pathogenic avian influenza H5N1 transmission, including the creation of communication tools for immediate use and longer-term strategies to sustain positive social and behavioural change
- **Ensure consistency in messaging and accuracy of technical information** which is adaptable to local contexts, and

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UN Action Plan Objectives 6 and 7

6. Continuity under Pandemic Conditions

7. Humanitarian Common Services Support

- OCHA, UNDP, UNHCR, UNICEF, ILO, IOM, FAO, OIE, ICAO, UNWTO and all other agencies

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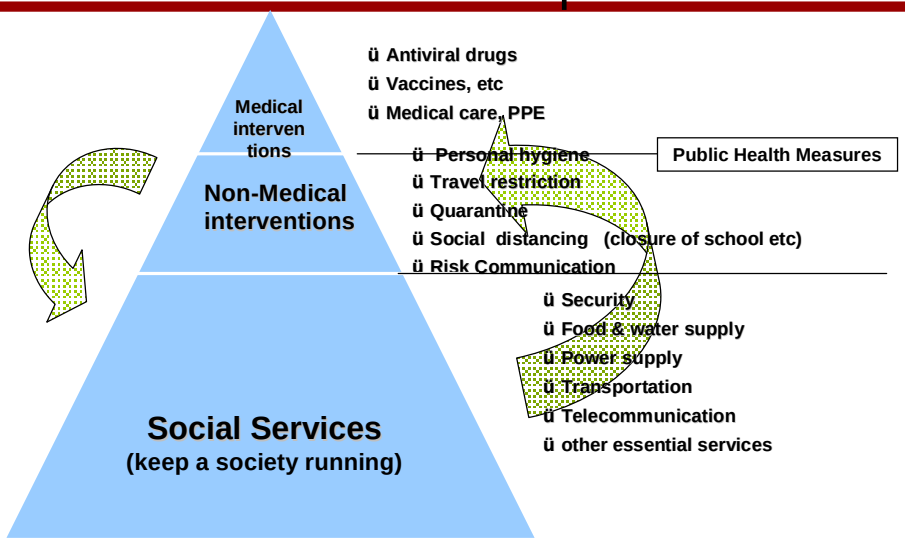
Pandemic Response



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(source) Dr T Kasai, WHO WPRO

Elements of Pandemic Readiness

- **High level of popular awareness and understanding**
- **Strong communications sytem**
- **All-of-Government approach synchronised with civil society and private sector**
- **Capacity for Early Detection, Investigation and Confirmation and Containment**
- **Social distancing, personal protection, movement restriction, maintenance of essential infrastructure**
- **Systematic use of anti-viral therapy (oseltamivir)**
- **Rapid development and equitable distribution of effective vaccines (will poor countries have access?)**
- **Protocols for prioritized access to and use of stockpiles**
- **Crisis plan to mitigate effects of pandemic on Economies, Governance, Basic Needs, Border Movements**
- **Humanitarian Relief Systems prepared**
- **Plans developed and simulated in an inclusive manner**

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Pandemic Influenza Contingency (PIC) support team

Ø **Team of experts in Geneva from different UN agencies (OCHA-UNDP-UNICEF-WFP) and other organisations, working with and through Regional Planning Officers**

MAJOR TASKS:

a) To strengthen the capacity of UN regional and country teams to provide effective support for pandemic influenza contingency planning outside of the health sector to national authorities.

b) To support UN regional and country team planning to maintain essential functions and staff health and safety in an influenza pandemic.

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Humanitarian assistance (examples)

- UNHCR for refugees' needs
  - UNHCR/WHO testing training modules for pandemic influenza preparedness and mitigation in refugee and displaced populations
- IOM for migrants' needs
  - Project team set up
- WFP to provide technology and logistic capacity

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Business Sectors involved in Pandemic Readiness

1 Livestock Production *Preventing the next influenza pandemic*
- Growing, Processing, Marketing and Distribution of animal meat for human consumption

2 Human Health *Containing it*
- Medicines, Commodities, Equipment, R and D, Patient Care, Lab services

3 Financial Services
- Banking (cash and settlements), financial regulation, risk management and insurance

4 Utilities, Logistics, Personal Services
- Electricity, Water, Food, Telecoms, Logistics, Postal services, Transport, Retailing (Catering for the needs of the most vulnerable)

5 Leisure and Recreation
- Tourism and Travel, Airports, Sports

6 Government, Security, Military
- Public Services, Law and Order, Judiciary and Correction, Private Security, Human Rights

7 Media
- Broadcast, Print; Podcast and Blog;

8 Environmental hygiene
- Cleaning, Maintenance, Refuse management, wildlife conservation

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Tourism and Travel Sector (UNWTO)

- Published “Avian Flu Preparedness Guidance for the Tourism Sector”
- Releases avian flu daily bulletin on website
- Conducted simulation exercise in March 2007 in Paris for Europe, Africa and the Middle-East, to be followed by Asia/Pacific and the Americas in 2007
- One-stop central website has been launched http://www.sos.travel

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Priorities for International Action

(identified in Progress Report)

1. Sustaining **High Political Commitment**
2. More equitable distribution of capability of **rapid response and reporting**
3. Identifying and implementing **optimal methods of communication for behavioral change**
4. Engagement of **non-governmental sectors** in planning and implementation
5. **Sustaining joint approach** among national authorities and partners (bilateral donors, development banks, UN..)
6. Continued international efforts for **development and enhancement in technical areas** including a)rapid detection and characterization of viruses, b) compensation, c) response to the early stage of a pandemic, d) mitigating adverse impact of a pandemic
7. **Sustained financial provision** from international community

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Next Technical Meeting on HPAI

- 27-29 June 2007 in Rome
- Organized by FAO, OIE, WHO in collaboration with UNICEF and UNSIC
- About 70 experts are expected to participate
- Outcome will have implications for policies and programmes at country, regional and global level

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Thank You for Your Attention.

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Priority Areas for Future APEC Work

Ms Bersabel Ephrem

Chair of the APEC Health Task Force

APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics

Priority Areas for Future APEC Work

Bersabel Ephrem
Chair of the APEC Health Task Force
May 8, 2007
Ha Noi Viet Nam

Objectives of the Presentation

- Examine the Action Plan to see:
  - what remains to be accomplished
  - what are the gaps
  - identify the priority areas of action

Presentation on the Action Plan

- Five main areas of focus in the Plan:
  - Multi-sectoral cooperation and coordination
  - Risk Communications
  - Agriculture and Trade
  - The private sector and continuity of business, trade and essential services
  - Regional and international cooperation

(with a total of 32 individual calls for action)

Identifying the Priorities

- Responding to expert advice:
  - APEC Summit 2006: Direction from Leaders and Ministers on the Action Plan
  - APEC Business Advisory Council (ABAC)
  - HTF member assessments
  - Input from WHO, UN System Influenza Coordinator and other international organisations

Multi-sectoral cooperation and coordination

- Coordination across veterinary and human health sectors is recognised as essential
- Increase prompt reporting and sharing of biological specimens
- Support efforts to promote greater access to medicine in times of pandemic
- Promote public-private partnerships

Risk Communications

- Accurate and timely information is a key factor in managing AI/PI:
  - Development of mechanisms for efficient and transparent information sharing among economies and with international organizations
  - Development of regionally-based projects on risk communications
  - Support joint communication efforts with the public and private sectors

Enhancing Avian and Pandemic Influenza Preparedness and Response: Future Actions for APEC

Dr. Michael Iademarco

U.S. Department of Health and Human Services,

Health Attaché, U.S. Embassy in Ha Noi

Enhancing Avian and Pandemic Influenza Preparedness and Response – Future Actions for APEC

United States

Michael Iademarco
U.S. Department of Health and Human Services
Health Attaché, U.S. Embassy Hanoi
May 8, 2007

Current Plan

- Rests on a comprehensive framework
- Multisectoral, not just health
- Prioritizes coordination and cooperation
- Rational and organized
- Action oriented (32 items)
- Amenable to implementation

Observations of Plan

- Pace of progress understandable
- Call for "partnering," but not formal "Partnerships"
- Lacking concrete metrics and monitoring mechanism
- Long-term focus but many affected Economies still in emergency mode

Observations of Plan (2)

- Substantial diversity in status of Economies' implementation
  - "Emergency" (many)
  - Crisis management (few)
  - Sustainable programs (perhaps none)
- Actions specific but often lack clear implementing mechanisms

Vietnam: Case Study

General Principles Apply to APEC Economies

- Progressed to crisis management phase
- Strong Government leadership
- Formal Partnership formed
- Priority focus correctly on animal side
- Diagnostic capacity essential for surveillance and evaluation
- Increased general capacity beyond avian influenza (AI)

Vietnam: Case Study (2)

Poultry Issues

- Prompt detection, containment, and control is critical and transparent
- Mass poultry vaccination not sustainable; targeting and local manufacture is recognized
- Requires veterinary infrastructure for effective implementation and ongoing surveillance
- Basic change in poultry production and marketing reforms required

Vietnam: Case Study (3)

National Human Influenza Surveillance

- Combines syndromic surveillance and sentinel laboratory identification of all influenza strains
- Reveals weakness but builds general infrastructure
- Provides baseline data: seasonality, outbreak detection, measures burden
- Provides viral isolates in continual fashion

Vietnam: Case Study (4)

Challenges

- Animal-human integration is hard
- Insufficient epidemiologic capacity, especially on animal side
- Strong need for a) monitoring and evaluation (M&E) and b) research
- Lack of country-specific new animal and human knowledge threatens success of excellent communications work

Possible Future Action

Suggestions for Improved Implementation of APEC Action Plan

1. Link AI and Pandemic Influenza to All Influenza

- Optimizes approach to surveillance
- Enhances communication and public information
- Focuses preparedness on everyday cause of morbidity and mortality
- Builds advocacy based on understanding of burden
- Strengthens sustainability

2. Add Concrete Metrics

- Economies' performance should be harmonized with
  - UN's Global Framework for the Progressive Control of highly pathogenic AI
  - Targets in national plans
- APEC Plan could specifically and concretely make these linkages

3. Strengthen and Harmonize M&E

- In emergency modes, communications and transparency are critical; however,
- Data-based technical input must follow
- Strengthen investment in
  - Government capacity in M&E
  - Epidemiology and laboratory capacity
  - Research
- Call for harmonized M&E

4. Assess Partnership Models

- Value of formal multisectoral Partnerships ?
- Adequate response to 2006 APEC Leader's Statement: "deepened engagement" of the private sector ?
- Strong potential public-private partnerships, especially for veterinary infrastructure and standards
- Is partnership sufficient to address critical issues such as animal and human sample sharing?

5. Improve Technical Capacity

Animal and Human

- Diagnostic capacity, includes laboratory
- Live bird market system biosecurity
- Vaccination technology and application
- Surveillance
- Emergency response capability with Incident Command System concepts and standards

CDC Interim Community Strategy for Pandemic Influenza Mitigation – National

- Focus on other measures, not drugs and vaccines
- Communities, families, employers, schools, and organizations asked to plan to limit impact
- Introduces Pandemic Severity Index to guide start and finish of intervention

CDC Interim Community Strategy for Pandemic Influenza Mitigation – National

- http://www.pandemicflu.gov/plan/community/index.html

Concluding Thoughts

- Different phases require different tools and responses
- Prevention of highly pathogenic influenza as an animal disease, mitigates the risk of a human pandemic
- Strong need to build momentum for long-term sustainable commitment and capacity building

6. Prevention Focus Requires

- Recognition of core public health functions
- Government and political commitment
- Broad Partnership across private sector, civil society, and professional organizations
- Coordination of communication and public information
- Multisectoral investment

Capacity Building to Enhance Avian and Influenza Pandemic Preparedness in China

Dr. Huang Baoxu

China

1. Brief Introduction of HPAI Epidemic Situation in China

1.1 From January 2004 to April 2007, 92 outbreaks of HPAI confirmed in 22 provinces of China, with totally more than 34.6 million poultries were culled. Migratory bird cases occurred in Qinghai and Tibet in 2005 and 2006. Besides that, 23 human cases mainly in southern China were found from 2005. The outbreaks of HPAI made serious impacts to China both on economy and society.

1.2 Chinese government always attaches great importance to HPAI prevention and control. Since 2004, by adhering to the guideline of"strong leadership, sound coordination, reliance on science and law, participatory approach, decisive intervention", and the integrated vaccination and stamping-out policy, Chinese government has being continued to strengthen HPAI prevention and control mechanism, improve relevant infrastructures, enhance capability and level of prevention and control of the disease. All of the 92 outbreaks of HPAI in domestic poultries were eradicated quickly. China has achieved obvious success in HPAI prevention and control.

1.3 Since 2006, the times and frequencies of the HPAI occurrence in China have been distinctly reduced. In 2006, 10 sporadic outbreaks of HPAI occurred in China, mainly concentrated in the middle and western China, including Shanxi, Anhui, Guizhou, Ningxia, Shaanxi provinces as well as Xinjiang and Inner Mongolia autonomous regions. Until now in 2007, only one outbreak occurred in Tibet autonomous region. Generally, the disease situation appeared to be mitigated. The integrated compulsory vaccination and stamping-out policy proved to be effective in China.

2. Enhancing capacity building for the establishment of a long-term effective mechanism for HPAI prevention and control

Though China has achieved obvious success in HPAI prevention and control, there are still many risks of HPAI occurrence due to its large poultry population and comparatively poor raising conditions. In order to establish a long-term effective mechanism, and to improve the integrated capacity for HPAI control, based on risk analysis and the current situation, the Ministry of Agriculture (MOA) initiated the new round of ***the Action Program for Prevention and Control of HPAI and Other Major Animal Diseases*** in March 10, 2007. The given actions are as follows:

2.1 Constructing reliable vaccination barrier on HPAI to improve risk-prevention capacity. Given the practical situations of China, the integrated vaccination and stamping-out policy, which enjoys Chinese characteristics has been set up by the government. China started to implement voluntary vaccination policy in 2004, and implement compulsory vaccination policy since Oct. 2005. According to the statistics, from January to October 2006, more than 8.2 billion domestic poultries were vaccinated with the vaccination density exceeded 95%. Following the increase of vaccination density, the HPAI outbreaks decreased significantly. Epidemiological investigation showed that almost all of the outbreaks of HPAI occurred in the unvaccinated or un-proper vaccinated poultry flocks. That means, the compulsory vaccination policy is both effective and very necessary.

In the light of the current global and domestic AI epidemic situations, China will continue to carry on the compulsory vaccination policy for HPAI. In Jan. 2007, the

Ministry of Agriculture issued ***the Plan for AI Vaccination in 2007*** so as to facilitate the systematization and standardization of the AI vaccination strategy. The main works in 2007 include:

2.1.1 All of the domestic poultry should be vaccinated to ensure high vaccination density.

2.1.2 The vaccination procedures should be standardized. All scale poultry farms should carry on vaccination according to relative scientific vaccination standards, while backyard poultries are subject to the spring-autumn vaccination campaign. Restocking poultries should be vaccinated in time and the quality of vaccination should be further improved.

2.1.3 Conduct regular surveillance of vaccination effects, poultries in one flock with protective titer lower than 70 percents will be subjected to the reinforcing vaccination.

2.1.4 The poultry for export with good animal health conditions would not be vaccinated with the permission of veterinary administrative agency at provincial level if the importing country have special requirement.

Up to now, about 3 billion doses of vaccine have been used in mainland China.

2.2 Strengthening surveillance and reporting system to improve early-warning capacity. Following the practice of ***the National Project of Animal Protection*** from 1998 to now, the well-functioned animal diseases surveillance and reporting system at county level, prefecture level, provincial level and central level have been built. Moreover, the Ministry of Agriculture has set up 300 animal disease surveillance stations at the areas with high animal density and 146 border animal diseases surveillance stations at the border areas of the country.

In accordance with guidelines of FAO and OIE, *the National Surveillance Program for HPAI* was issued by the Ministry of Agriculture in 2005, and it has been well practiced. In 2006, 6.8 million samples were tested in the whole country, with the qualified vaccination rate accounted for 86.79%. In addition, 50 positive pathogen samples and 7 outbreaks of HPAI occurred in Inner Mongolia, Ningxia, Guizhou, Shaanxi, Xinjiang, Anhui, and Hunan were also found under this surveillance plan. All of these 7 outbreaks were eradicated in time without dispreading. The aim of this early-warning strategy has been achieved.

In order to further improve the standardization of surveillance activities at different regions, detect epidemic in time and real enhance the early-warning capacity, the Ministry of Agriculture issued ***the National Surveillance Plan for HPAI in 2007*** in Jan. 2007. Five aspects of works would be emphasized in this year. First is to enlarge the samples quantity from live-bird-markets, so as to improve the sensitivity of the surveillance. Second is to conduct periodical surveillance towards those relatively immobile breeding farms and commercial farms, so as to grasp the accurate vaccination effects. Third is to enlarge samples quantity of swine and wild birds and all found-dead birds should be tested. Fourth is to conduct training courses nation-wide, and the Ministry of Agriculture will conduct the validation experiments on test assays of

provincial labs. Fifth is to strengthen epidemiological investigation to promote early-warning capacity building at different levels based on risk analysis.

2.3 Accelerating the reform of veterinary administration system to improve the working capability at grass-roots level. The State Council issued ***Several Opinions on Accelerating the Reform of Veterinary Administration System*** in 2005. ***The Opinions*** require governments at all levels should establish and improve the three systems of veterinary services which include veterinary administrative departments, law enforcement departments and technical support departments, and strengthen the capability building of veterinary agencies at grass-roots level, so as to improve national animal health and food safety level. Until to now, the three systems at county level, prefecture level, provincial level and central level have been established.

Good veterinary system at grass-roots is the foundation for the success of HPAI prevention and control. In the next several years, the Ministry of Agriculture will pay high attention to the construction of the veterinary system at grass-roots level. Special equipments such as cool-chain facilities will be equipped for the veterinary stations at town level. The animal diseases prevention system at village level will be well established, there will be 645,000 animal diseases reporters at village level with one reporter each administrative village. The public finance will provide salary for staffs at town level and village reporters. Some provinces will conduct training courses for them to improve the capability of HPAI identification.

2.4 Accelerating the transformation of poultry-raising mode. There are at least 6 kinds of poultry rearing-mode in China in which the small-scale rearing pattern with poor animal health conditions dominates the industry accounting for at least 50 percents.

Epidemiological investigation showed that about 95 percents of HPAI outbreaks occurred in the flocks with poultries less than 10,000. That means at least 50 percents of the poultry flocks in China are HPAI susceptible flocks. So, it is very important to transform the poultry rearing style in China. Fortunately, the State Council issued ***the Opinion on Accelerating the Ongoing Health Development for Animal Husbandry*** in Jan. 2007. The Chinese government will adopt a series of measures to promote the transformation of poultry-raising style in order to reduce the risk of HPAI occurrence in the next several years.

2.4.1 Developing intensive poultry rearing farms and compartments. ***The Opinion*** encourages relevant corporations, farmers, and relevant economic organizations to develop standardized intensive rearing farms and compartments, and also requires all level governments and relative departments to increase financial investments, enlarge the scale of loan support, accelerate the experiments on political insurance, provide reasonable land arrangement for the modern animal husbandry development and encourage enterprises, farmer and relative economic corporations to establish standardized poultry raising farms and compartments and develop a modern industry.

2.4.2 Establishing the auditing mechanism for animal health conditions. Recently, ***the Rules of Animal Health Conditions and Licensing*** was issued by the Ministry of Agriculture. According to the rules, poultry farms, hatcheries and live-bird markets should be in conform with stipulated animal health conditions, the transformation of

poultry-raising mode should march towards the standardized directions, guidance and support should be made to encourage raising poultries in a standardized, hygienic and intensive manner, and the animal health conditions of domestic poultry should be further improved for ongoing healthy poultry industry development.

2.4.3 Promoting the transformation of poultry rearing conception of rural farmers. The Ministry of Agriculture will continue to conduct the action of HPAI knowledge publicity in a planned way, and actively carry on technical consultation to increase public awareness capacity. Wallpaper, pocket books and papers of easy understanding will be distributed to rural households. The situation of human-chicken mixed living, and livestock-poultry mixed living styles in rural villages are expected to be changing in the future. These actions will extend to the border areas and minority living areas.

2.5 Accelerating the establishment of specific animal diseases-free areas to improve the diseases prevention and control capacity at regional level. Animal husbandry has been a crucial sector in China. Taking into account its vast territory and characteristics of the environment, animal husbandry styles vary from one region to another. China pays much attention to the implementation of the regionalization in the course of animal diseases control. In the light of WTO/SPS agreement and relevant international standards, China started to implement the principle of regionalization by establishing specific diseases-free areas in a trial and step-by-step manner through administrative, legal, economic and technical measures in its territory from 1998. Up to now, China has implemented regionalization policy for four major animal diseases, namely Foot and Mouth Disease, Classical Swine Fever, Highly Pathogenic Avian Influenza and Newcastle Disease. Five areas including the Jiaodong peninsula, the Liaodong peninsula, the Songliao plain, the Sichuan basin, and the Hainan island were selected as animal diseases-free areas for trial implementation of the regionalization, because these areas are all surrounded by natural barriers such as sea, rivers and mountains or by necessary artificial barriers, thus they are easy to be applicable in close management. The five areas are also the major bases in China for well-developed animal breeding and production. Until to now, accumulated investment in these areas has reached 200 million USD for reconstructing the veterinary laboratories at all levels to improve the bio-safety level and the detecting ability, establishing the identification and record management systems of animal vaccination to improve the traceability, implementing specific animal diseases monitoring and surveillance programs to improve the animal diseases detecting and early-warning ability, strengthening animal movement control systems with strict animal quarantine and inspection, constructing emergency-response system to promote emergency response ability for animal diseases control, etc. Ongoing surveillance shows that the diseases free status in these areas has been well maintained. The surveillance information is being informed periodically to the international organizations concerned and major trade partners through the ***Official Veterinary Bulletin*** published by the Ministry of Agriculture.

2.5.1 This year, the Ministry of Agriculture will establish the National Risk Evaluation Committee of Animal Health which will be responsible for evaluating the animal health status of specific areas, and providing guidance for the establishment of animal disease free areas.

2.5.2 Establishing and maintaining of the animal diseases-free areas is very costly both in terms of finance, technical and administrative resources. China will summarize the experiences of the diseases-free areas, broaden the investment channels, and continue to increase disease-free areas based on risk analysis in other parts of the country on a step-by-step basis, so as to improve the national animal health protecting level.

2.5.3 At the same time, China encourages and welcomes information sharing, experience exchange and technical assistance from APEC Members as well as relevant international organizations with regard to regionalization.

2.6 Strengthening veterinary inspections to improve bio-safety level for HPAI prevention and control. ***The Action Program for Prevention and Control of HPAI and Other Major Animal Diseases*** requires all level governments to pay high attention on strengthening supervision over the quality of AI vaccines, the measures include implementation GMP certification for vaccine production plants, unified production of the master seed for vaccine production, strict quality inspection over vaccines, dispatch of supervisor stationing in every AI vaccine production plant to conduct supervision over the full process of vaccine production, issue of approval for each batch of the final products and conduct of random sampling, and investigation and prosecution of fake, forged and low quality products. In addition, relevant departments of China will strengthen supervision on the bio-safety capacity of the veterinary labs according to the stipulations of ***the Regulations for Bio-safety Management on Laboratory of Pathogenic Microorganism,*** so as to improve bio-safety level of labs.

3. Conclusion

3.1 With the integrated vaccination and stamping-out policy, the frequency of HPAI outbreaks showed a declining tendency in China. It indicates that the current policy is effective and should be adhered to.

3.2 Based on risk analysis, ***the Action Program for Prevention and Control of HPAI and Other Major Animal Diseases*** was initiated this year. The capabilities of risk prevention, early warning, public awareness and identification, and bio-safety control for HPAI, and the diseases control capabilities at grass-roots and regional level in China will be future improved in the future.

3.3 The undertaking of HPAI prevention and control in China is being moved towards a standardized, systemized and legalized orientation and the long-term effective mechanism for prevention and control of HPAI is going to be established.

Capacity Building to Enhance Avian and Influenza Pandemics Preparedness in China

Huang Baoxu, Ph.D

China Animal Health & Epidemiology Center
Ministry of Agriculture, P.R. China

2007.05.08
Hanoi, Viet Nam

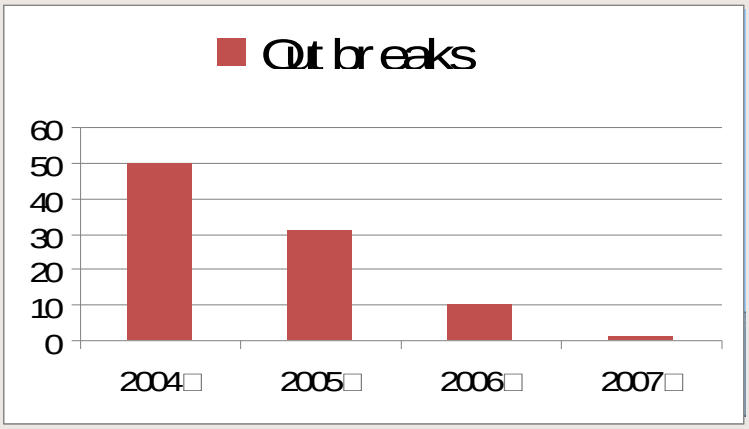
I. Introduction

HPAI Epidemic Situation in China

Guidelines for HPAI Control in China

- Strong leadership
- Sound coordination
- Reliance on science and law
- Participatory approach
- Decisive intervention
- Integrated vaccination and Stamping-out policy

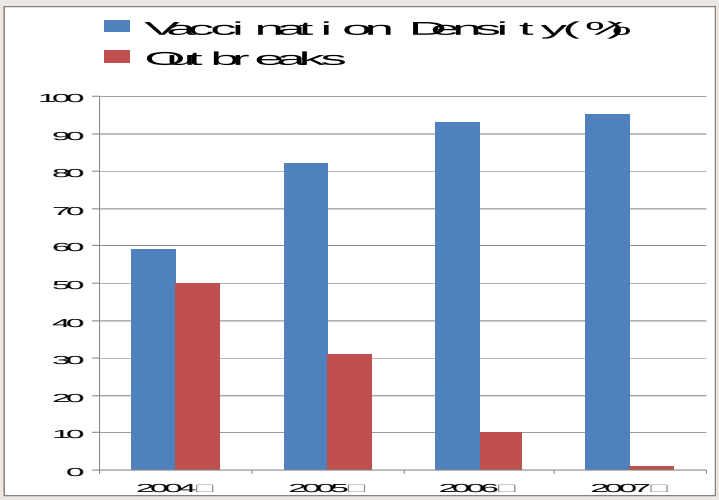
The Integrated Compulsory Vaccination & Stamping-out Policy Proved to be Effective in China



II. Future Actions to Enhance Capacity Building in Mainland China

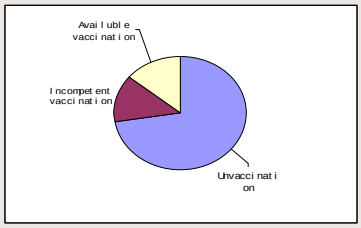
THE ACTION PROGRAM FOR HPAI PREVENTION AND CONTROL

2.1 Construct reliable vaccination barrier on HPAI to improve risk-prevention capacity



Unvaccinated areas is the main risk of HPAI outbreaks

Vaccination situation	Outbreaks	Percents	
unvaccinated	66	72.5%	85.7%
Un-proper vaccination	12	13.2%	
vaccinated but had a low titer of antibody	22	14.3%	



China will facilitate the systematization and standardization of the AI vaccination strategy

- All of the domestic poultry should be vaccinated to ensure high vaccination density.
- The vaccination procedures should be standardized.
- Conduct regular surveillance of vaccination effects.
- The poultry for export with good animal health conditions would not be vaccinated.
- Up to now, about 3 billion doses of vaccine have been used in mainland China.

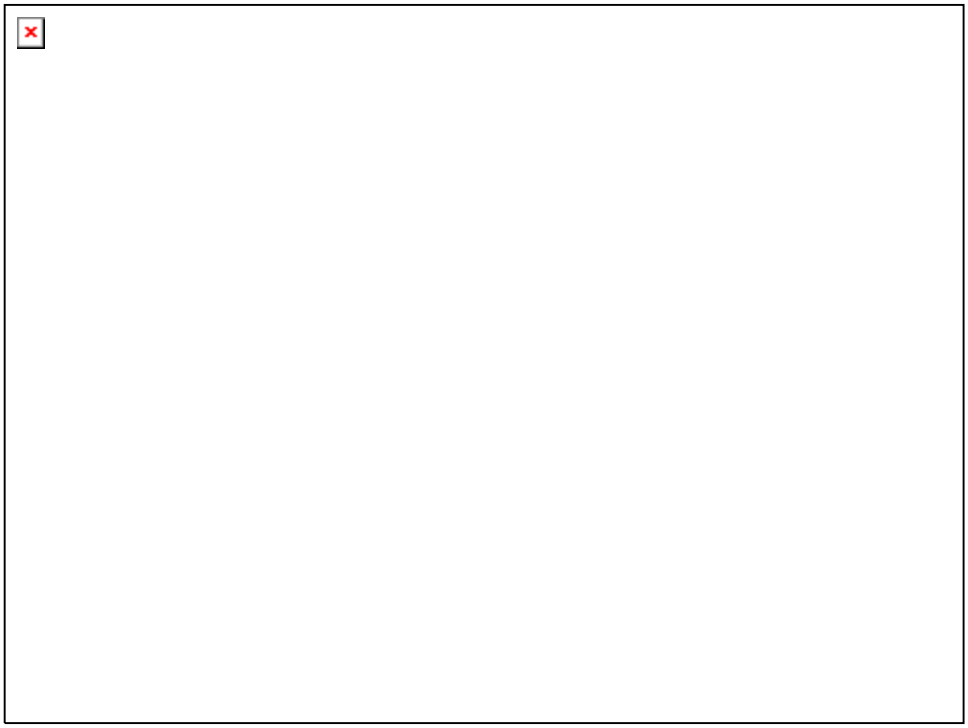
2.2 Strengthen Surveillance and Reporting System to Improve the Early-Warning Capacity

- 2,800 Surveillance Labs and stations at county level
- 31 Surveillance Centers (Labs) at Provincial level
- National surveillance Centers such ACDC, CEAH, NAIC
- 300 animal disease surveillance stations at the areas with high animal density
- 146 border animal diseases surveillance stations at the border areas of the country.

The National Project for Animal Health from 1998

National AI Surveillance Plan(2005-2010)

- 6.8 million samples were tested in the whole country, with the qualified vaccination rate accounted for 86.79%.
- 50 positive pathogen samples and 7 outbreaks of HPAI occurred in Inner Mongolia, Ningxia, Guizhou, Shaanxi, Xinjiang, Anhui, and Hunan were found under this surveillance plan.
- The aim of this early-warning strategy has been achieved

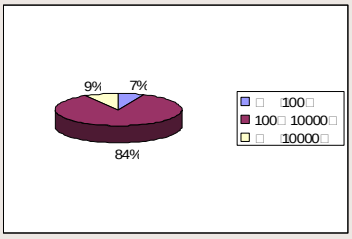


MOA will pay high attention to the construction of the veterinary system at grass-roots level

- Special equipments such as cool-chain facilities will be equipped for the veterinary stations at town level.
- The animal diseases prevention system at village level will be well established, there will be 645,000 animal diseases reporters at village level with one reporter each administrative village.
- The public finance will provide relative salary for staffs at town level and village reporters.
- Some provinces will conduct training courses for them to improve the capability of HPAI identification.

Small farms of poor sanitary condition with the high risk

Farming Scale	Outbreaks	Percents
Less than 100□Backyard□	6	6.6%
100-10,000	80	87.9%
10,000-50,000	5	5.5%
More than 50,000	0	0%



the Opinion on Accelerating the Ongoing Health Development for Animal Husbandry

- **Developing intensive poultry rearing farms and compartments.** All level governments and relative departments to increase financial investments, enlarge the scale of loan support, accelerate the experiments on political insurance, provide reasonable land arrangement for the modern animal husbandry development.
- **Establishing the auditing mechanism for animal health conditions.** According to t***he Rules of Animal Health Conditions and Licensing,*** poultry farms, hatcheries and live-bird markets should be in conform with stipulated animal health conditions, the transformation of poultry-raising mode should march towards the standardized, hygienic and intensive manner.
- **Promoting the transformation of poultry rearing conception of rural farmers.** The MoA will continue to conduct the action of HPAI knowledge publicity in a planned way. Wallpaper, pocket books and papers of easy understanding will be distributed to rural households. The situation of human-chicken mixed living, and livestock-poultry mixed living styles in rural villages are expected to be changing in the future.
- These actions will extend to the border areas and minority living areas.

2.5 Accelerating the establishment of specific animal diseases-free areas to improve the diseases prevention and control capacity

- Animal husbandry has been a crucial sector in China. Taking into account its vast territory and characteristics of the environment, animal husbandry styles vary from one region to another.
- China pays much attention to the implementation of the regionalization in the course of animal diseases control. In the light of WTO/SPS agreement and relevant international standards, China started to implement the principle of regionalization by establishing specific diseases-free areas in a trial and step-by-step manner through administrative, legal, economic and technical measures in its territory from 1998.
- Up to now, China has implemented regionalization policy for four major animal diseases, namely Foot and Mouth Disease, Classical Swine Fever, Highly Pathogenic Avian Influenza and Newcastle Disease.

Five areas including the Jiaodong peninsula, the Liaodong peninsula, the Songliao plain, the Sichuan basin, and the Hainan island were selected as animal diseases-free areas for trial implementation of the regionalization.

- Until to now, accumulated investment in these areas has reached 200 million USD:
- reconstructing the veterinary laboratories at all levels to improve the bio-safety level and the detecting ability,
- establishing the identification and record management systems of animal vaccination to improve the traceability,
- implementing specific animal diseases monitoring and surveillance programs to improve the animal diseases detecting and early-warning ability,
- strengthening animal movement control systems with strict animal quarantine and inspection,
- constructing emergency-response system to promote emergency response ability for animal diseases control, etc.
- Ongoing surveillance shows that the diseases free status in these areas has been well maintained.
- The surveillance information is being informed periodically to the international organizations concerned and major trade partners through the ***Official Veterinary Bulletin*** published by the Ministry of Agriculture.

Next for Diseases free-areas?

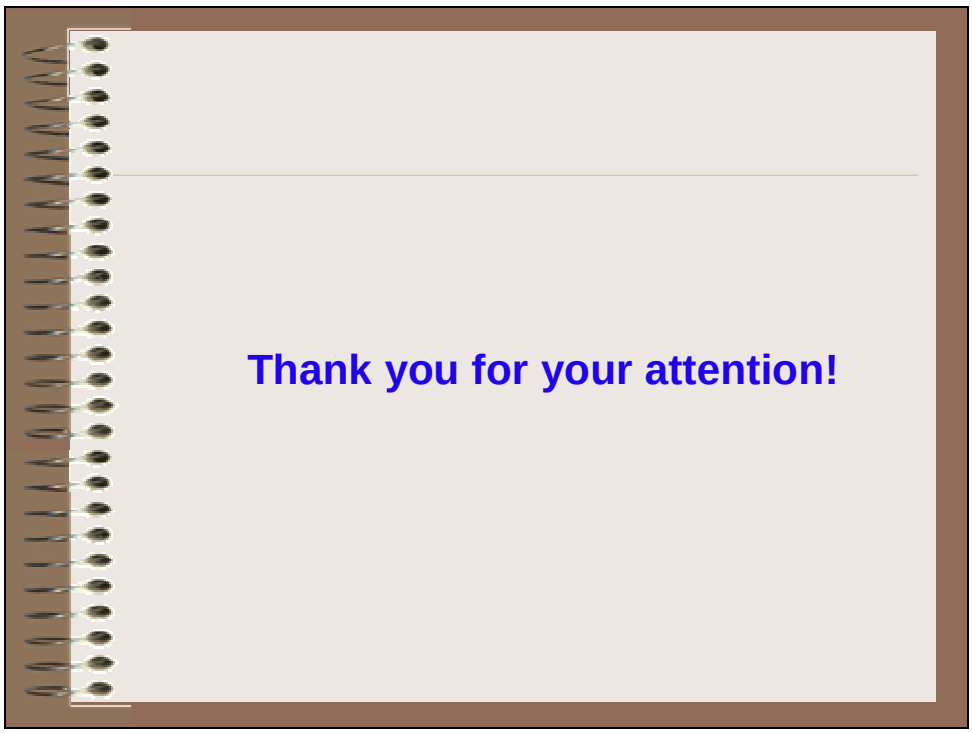
- This year, the Ministry of Agriculture will establish the National Risk Evaluation Committee of Animal Health which will be responsible for evaluating the animal health status of specific areas, and providing guidance for the establishment of animal disease free areas.
- Establishing and maintaining of the animal diseases-free areas is very costly both in terms of finance, technical and administrative resources. China will summarize the experiences of the diseases-free areas, broaden the investment channels, and continue to increase disease-free areas based on risk analysis in other parts of the country on a step-by-step basis, so as to improve the national animal health protecting level.
- China encourages and welcomes information sharing, experience exchange and technical assistance from APEC Members as well as relevant international organizations with regard to regionalization.

2.6 Strengthening veterinary inspections to improve bio-safety level for HPAI prevention and control

- **strengthening supervision over the quality of AI vaccines, the measures include:**
  - implementation GMP certification for vaccine production plants
  - unified production of the master seed for vaccine production
  - strict quality inspection over vaccines
  - dispatch of supervisor stationing in every AI vaccine production plant to conduct supervision over the full process of vaccine production
  - issue of approval for each batch of the final products and conduct of random sampling
  - investigation and prosecution of fake, forged and low quality products
- **Strengthen supervision on the bio-safety capacity of the veterinary labs according to the stipulations of *the Regulations for Bio-safety Management on Laboratory of Pathogenic Microorganism*, so as to improve bio-safety level of labs.**

3. Conclusion

- With the integrated vaccination and stamping-out policy, the frequency of HPAI outbreaks showed a declining tendency in China. It indicates that the current policy is effective and should be adhered to.
- Based on risk analysis, ***the Action Program for Prevention and Control of HPAI and Other Major Animal Diseases*** was initiated this year. The capabilities of risk prevention, early warning, public awareness and identification, and bio-safety control for HPAI, and the diseases control capabilities at grass-roots and regional level in China will be future improved in the future.
- The undertaking of HPAI prevention and control in China is being moved towards a standardized, systemized and legalized orientation and the long-term effective mechanism for prevention and control of HPAI is going to be established.


Thank you for your attention!

Session IV:

HTF's Progress Report on the Action Plan to APEC Health Ministers

HTF 2007 Report on the Action Plan on Prevention and Response to Avian and Influenza Pandemics

Ms Bersabel Ephrem

Chair of the APEC Health Task Force

HTF 2007 Report on the APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics

Presentation by:
Ms. Bersabel Ephrem
Chair of the APEC Health Task Force
May 8, 2007
Ha Noi, Viet Nam

Background Information

- The APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics requires that the HTF report to SOM in 2007.
- The report will be a source document on our individual and collective actions to prevent and prepare for avian and influenza pandemics.
- The HTF Secretariat sent out a call to members to provide their reports by April 30, 2007.
- The HTF Secretariat has received 5 economy reports.

Structure of the report

- All member economies will provide a brief three page report to the HTF Secretariat.
- The HTF Secretariat will draft an Executive Summary, with input from members.
- The Executive Summary will also include the recommendations from this workshop.

Next Steps

- All remaining reports should be sent to the HTF Secretariat by May 14
- The HTF Secretariat will compile the draft report and draft the Executive Summary by May 18th 2007, and circulate to members for input
- A final draft report will be presented at the HTF meeting June 5-6 for endorsement

Next Steps to be agreed upon

- **The report will be presented at the Health Ministers Meeting by the HTF Chair;**
- **The key elements of the report will be presented at the SCE meeting at SOM III later in June;**
- **These key elements will be reflected in the APEC Summit documents.**

Research: Knowledge and Practices of Avian Influenza Prevention; Systems of Veterinary and Public Health Services at Village/commune Level, Viet Nam 2006 – 2007

Viet Nam

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Abbreviations

AI	Avian Influenza
APEC	Asia Pacific Economic Cooperation
CAP	Knowledge and practices
CAHW	Commune Animal Health Worker
CE	Community Event
CPHW	Commune Public Health Worker
CWU	Commune Women's Union
CYU	Communist Youth Union
DARD	Department of Agriculture and Rural Development (province)
DHC	District Health Centre
DOH	Department of Health (province)
DVS	District Veterinary Station
DWU	District Women's Union
GoV	Government of Vietnam
IEC	Information, Education, Communication
INGO	International Non-Governmental Organisation
M&E	Monitoring and Evaluation
VBSP	Vietnam Bank for Social Policies
WU	Women's Union (province)

Background

The H5N1 avian influenza virus (AI) is a particularly virulent poultry disease that has caused billions of dollars of livestock losses and is now considered endemic in many countries across the Asia Pacific region. It is a zoonotic disease that has already caused deaths in humans, and threatens to mutate into a human infection with potential consequences larger than the scale of the 1918 influenza pandemic. The disease has seriously hindered the process of trade facilitating through out APEC economies.

To cope with this problem, the first APEC Health Ministers Meeting on AI adopted an Action Plan on the Prevention and Response to AI Pandemics which set forth common directions for economies to follow in response to the disease. Subsequently, a workshop titled "Implementation of APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics: Process Review and Building Capacity for Future Work" will be organized from 7th to 8th May 2007 in Viet Nam. This will be a unique chance for participants from economies to gather and look back upon what they have done and what can be learnt from each others to strengthen prevention initiatives. As part of the materials prepared for the workshop, this paper provides an evaluation of the knowledge of Vietnamese households with regards to AI. It provides workshop's participants some insights on the Viet Nam's animal health system that the program is built upon. The authors also suggest some pros and cons of this system in supporting efforts to eliminate the pandemic. Due to the limitation in terms of scope of this report, concrete solutions to improve this system are left open for further researching.

It is worthy to note that data used in this paper comes from a baseline survey conducted at November 2006 by the Institute for Health Strategy and Policy. In doing so, the authors have received permission and assistance from the Institute, for which we do appreciate. Our sincerely thanks also due to the APEC secretariat represented by the Multilateral Economic Cooperation Department, the Ministry of Foreign Affairs for its logistic support. All views expressed herein or any mistakes the report may contain are however those of the authors and do not in any way reflect the official position of the APEC secretariat any other Party.

Research areas

The research is carried out by Institute for Health Strategy and Policy in communes of Thuy Nguyen district in Haiphong City as Tân Trào, Đại Hà, Bắc Hưng and Hùng Thắng. The information on the Viet Nam's animal health system was gathered from the related government organizations as Health Department of Haiphong, Animal Heath Branch of Haiphong, Animal Heath Branch of Bacninh...

Research aims

The research is implemented based on two main aims as follows: a). To define knowledge and practices of people in the high risk areas effecting by avian influenza; b). To find out weaknesses that can be improved in the Viet Nam's animal health system from villages and communes to communities.

Research methods

The given survey is a baseline research that evaluates knowledge and practices of H5N1 avian influenza virus prevention of community in the initial project circle. In addition, it can be used in designing a new project of the prevention or comparing to the result after the project finished.

The used methods in the research consist of individual questionnaires, group discussions, workshops… There were 120 households that were selected by chance from 4 communes of Kien Thuy district of Haiphong City were interviewed.

For each of the selected communes, information was gathered about the structure of the commune and this was used to determine the selection method of households for that commune. Data was collected through a knowledge and practice questionnaire. From these the most important twelve were chosen for inclusion in the questionnaire. The questions were either of yes/no format or open. For the open questions, the participants were asked the question and their responses were coded by the interviewer on a list provided in the questionnaire. Responses not on this list were recoded as "other".

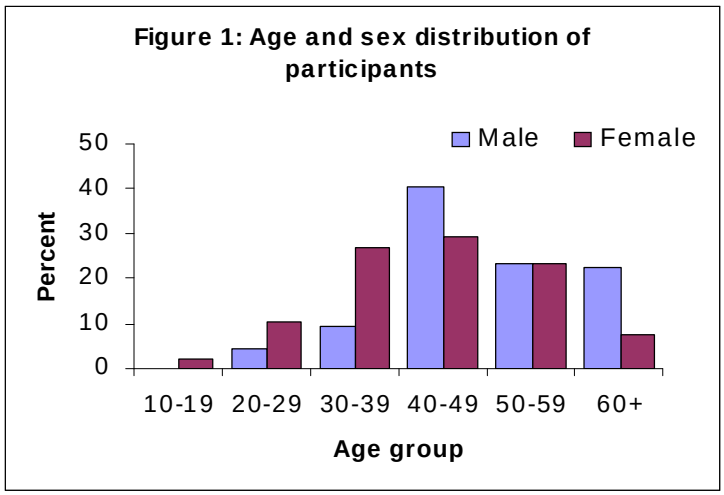
The interviewers then took turns interviewing each other for practice. In both surveys, each interviewer was responsible for conducting 30 interviews. The head of the household or an adult member was interviewed. The interviewer also made some direct observations as indicated in the questionnaire. Once all interviews were completed they

were sent to the team leader in each province for checking and any missing data was re-collected. The forms were then sent to research team.

RESULTS 1. KNOWLEDGE AND PRACTICESOF AVIAN INFLUENZA PREVENTION IN RESEARCH AREA

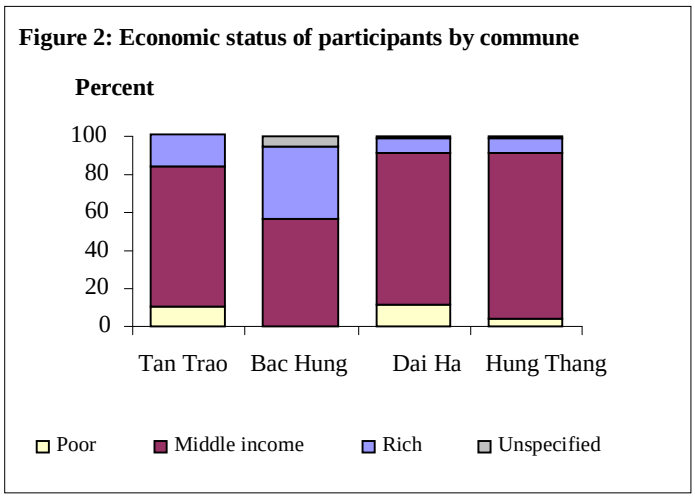
General information

- 66.5% (n=120) of respondents were female and most were aged between 30 and 59 (Figure 1). Male respondents were mostly aged over 40.



- Most respondents (73.5%) were of middle income, this proportion ranged from 56% in Bac Hung to 88% in Hung Thang commune. Bac Hung had the highest proportion of rich respondents, at 38% and Dai Ha had the highest proportion of poor and very poor respondents, at 13% (Figure 2).

- 72.2% of participants reported raising poultry at their home. This ranged from 38.5% in Tan Trao to 93.0% in Bac Hung.



- For those respondents that reported raising poultry, the numbers that they raise are shown in Table 1. The most common size of poultry farm was 10-99.

Table 1: Number of poultry raised by participants

No. of poultry	Frequency	Percent
Less than 10	27	22.5
10-99	72	60
100-999	18	15
More than 1,000	3	2.5
Total	120	100

- 97% of participants had heard of AI. The 3 people that hadn't were all from Hung Thang commune. These 3 were excluded from the analysis making total sample size 120.

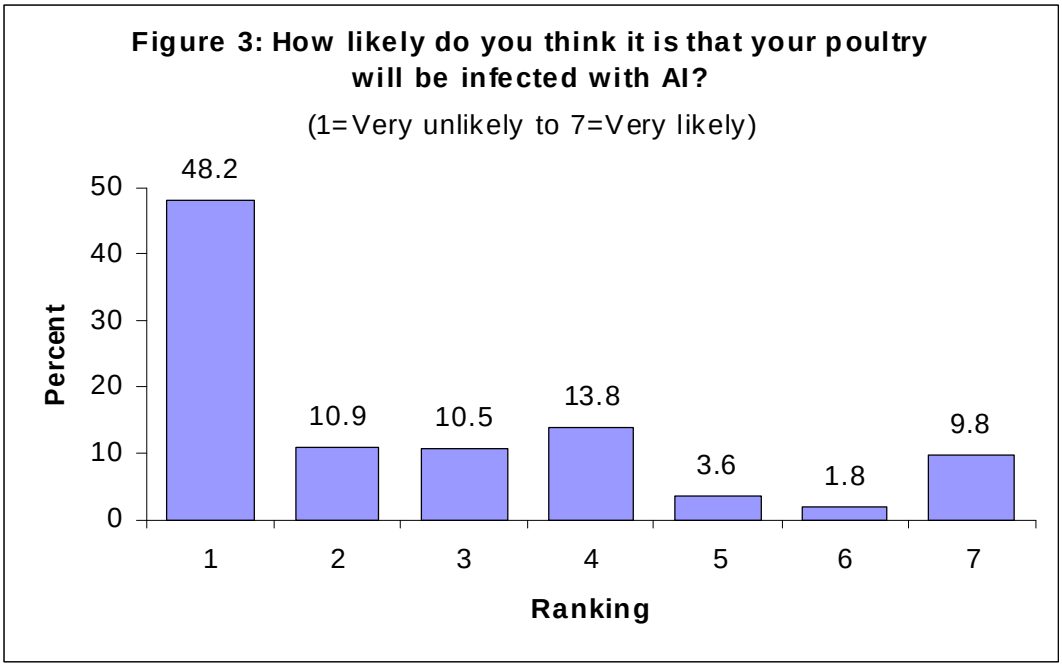
Knowledge towards AI

- 60% of participants reported that they thought AI would occur again in Vietnam, 25.6% reported they didn't think AI would occur again and 24.4% answered "Don't know".

- 78.2% reported that they thought it was possible to prevent AI from spreading; 7.0% thought it was not possible and 14,8% answered "Don't know".

- 4,1% reported having attended an AI community event sponsored by union of Government, 79.5% reported they hadn't and 16.4% answered "Don't know".

- A half of total reported believed that it is very unlikely that their poultry will be infected with AI (Figure 3). A tenth percent reported thinking it is very likely that their poultry will be infected with AI.



Knowledge of AI transmission and symptoms in poultry

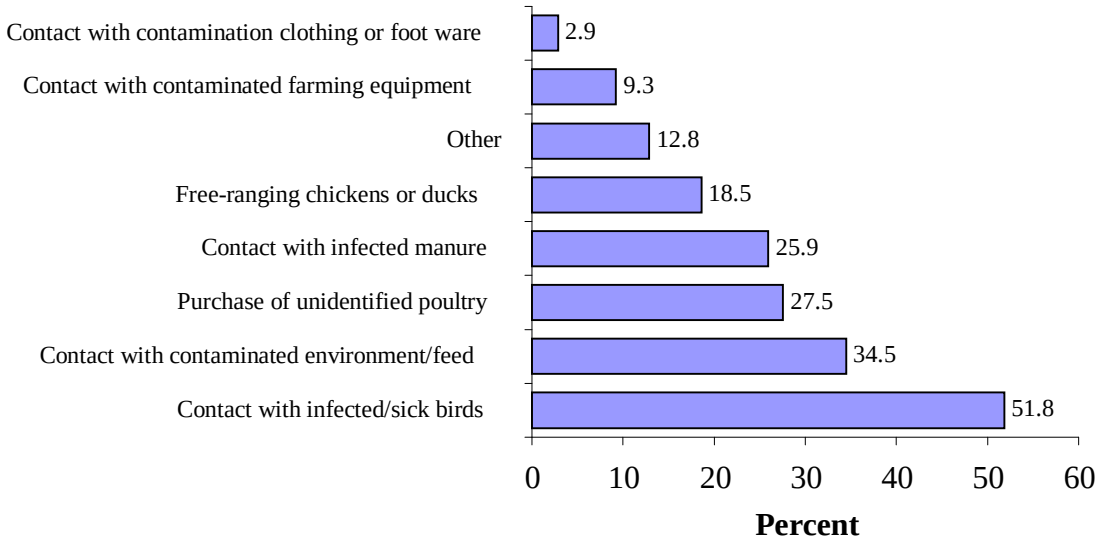
Question 10: Transmission routes among poultry

- 18.2% participants did not know how AI was spread amongst poultry. Figure 4 shows the responses for 120 participants that did respond to this question. Respondents could provide more than one transmission route.

- "Other" responses included: airborne transmission (n=8), from the H5N1 virus (n=7), weather or environment (n=5), wild birds (n=7), transport (n=2), large scale farms (n=1), small scale farms (n=1) and storing chickens and geese together (n=1).

- Half of respondents reported one transmission route, nearly thirty percent reported two, sixth percent reported three and 7% reported more than three transmission routes.

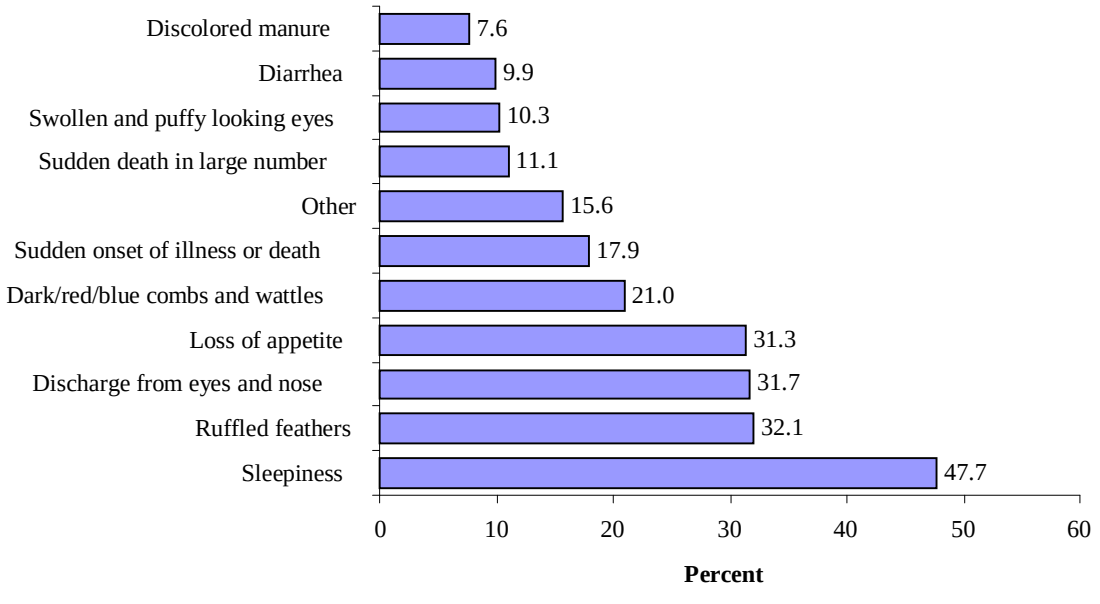
Figure 4: Transmission routes of AI in poultry (n=120)



Question 11: Symptoms of AI in chickens

- 70.0% (n=84) reported that you can always see when chickens are infected with AI. This proportion was higher in those reported raising poultry compared with those that did not report raising poultry.

Figure 5: Reported symptoms of AI in chickens (n=108)



- Figure 5 shows the most commonly reported symptoms of AI from the 108 participants that reported that you can always see when chickens are infected with AI.

- Less commonly reported symptoms included fast breathing (n=14), excessive thirst (n=12), fever (n=11), stop laying eggs (n=10) and bleeding (n=9).

- "Other" responses were varied and have been grouped into the following categories: symptoms in the leg, symptoms in the neck/head, drooping wings, cough.

- 20% of participants reported one symptom, over 35% report two, nearly 25% reported three and 20% reported more than three symptoms.

Question 12: Symptoms of AI in ducks

- 45.4% (n=54) reported correctly that you cannot always see when ducks are infected with AI. This proportion was higher in those reporting not raising poultry at home compared with those that did report raising poultry.

- Less commonly reported symptoms included diarrhoea (n=9), bleeding (n=8), fever (n=7), excessive thirst (n=5) and fast breathing (n=3).

- "Other" responses included drooping wings (n=5), discoloured manure (n=3), symptoms in the leg (n=3), symptoms in the neck/head (n=3) and cough (n=1).

- 17.5% of participants reported one symptom, 31.7% report two, 29.1% reported three and 21.7% reported more than three symptoms.

Knowledge of AI transmission and symptoms in humans

Question 13: Transmission of AI in humans

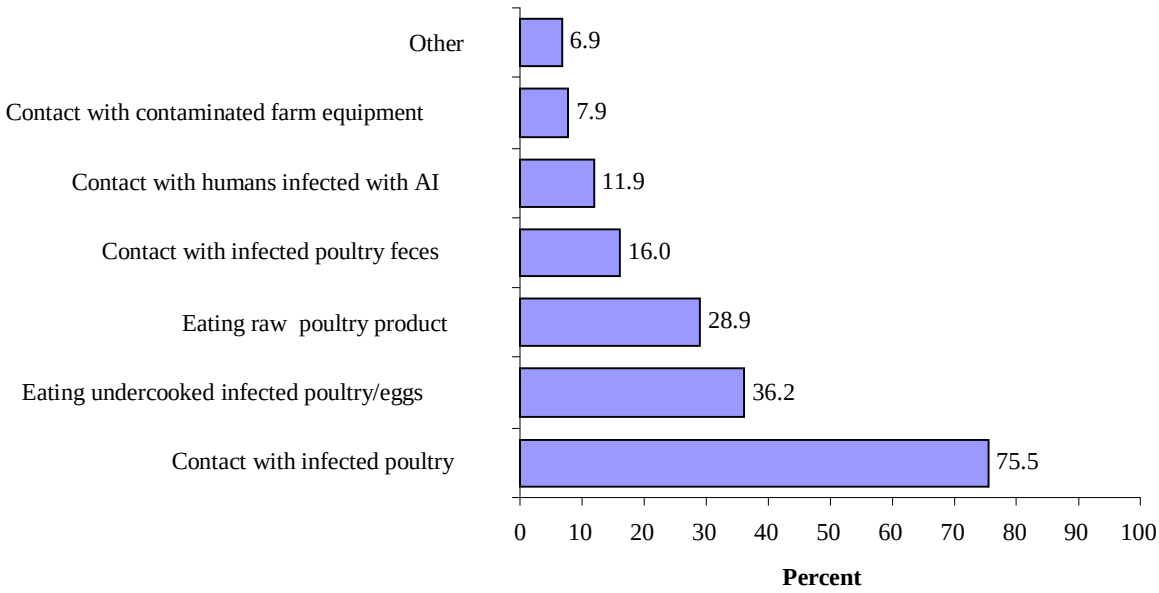
- 88.0% (n=110) of participants correctly responded that humans can be infected with AI; 8.2% (n=39) reported they could not be infected and 7.5% (n=27) reported "Don't know".

- Of the 120 participants, 6 responded "Don't know" to the question about transmission routes of AI in humans. The responses from the remaining 114 participants are shown in Figure 6.

- "Other" responses included no personal protection (n=6), killing poultry (n=4), lack of hygiene (n=3), pollution (n=2) and airborne route (n=2).

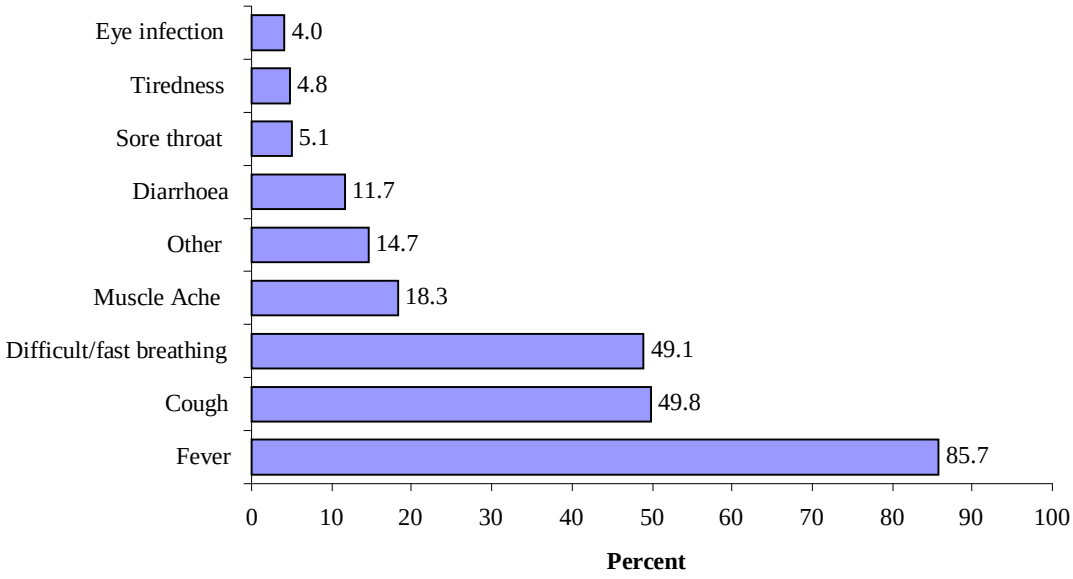
- 41.7% of participants reported one transmission route, 33.3% reported two, 15.0% reported three and 10% reported more than three transmission routes.

Figure 6: Transmission routes of AI in humans (n=114)



Question 14: Symptoms of AI in humans

Figure 7: Symptoms of AI in humans (n=98)



- Of the 120 participants that responded that humans could be infected with AI, 22 (18.3%) responded "Don't know" to the question about symptoms of AI in humans. Responses from the remaining participants (n=98) are shown in Figure 7.

- "Other" responses included headache (n=6), runny nose (n=5), loss of appetite (n=3) and vomiting (n=2).

- 37.5% of participants reported one symptom, 36.5% reported two, 14.6% reported three and 12.4% reported more than three symptoms.

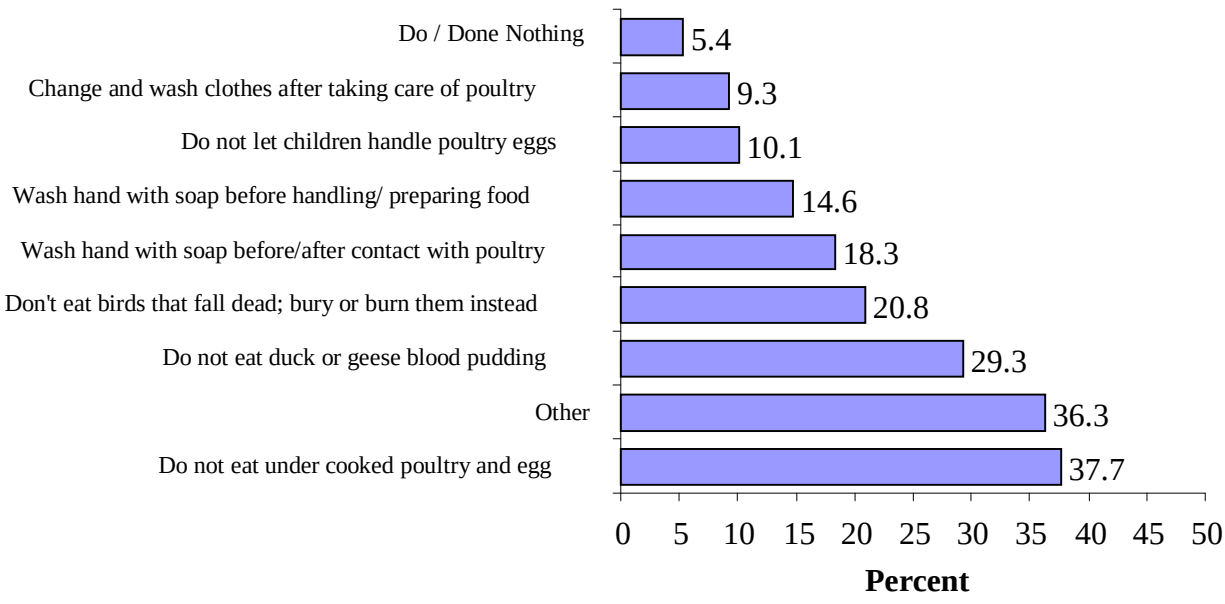
Knowledge of AI practices

Question 14: Prevention methods against AI for family

- The purpose of this question was to determine what participants are currently doing to prevent AI in humans. However, a lot of responses were focused on poultry prevention methods. These have been included in the "other" section, as they did not correspond to the prepared list of responses.

- 10.2% of participants (n=12) responded "Don't know" to the question about prevention methods currently being conducted by the family. Figure 8 shows the responses from the remaining 108 participants.

Figure 8: Prevention methods currently being conducting by the family (n=108)



- "Other" responses included cleaning the farm/equipment (n=42), using PPE (n=25), spraying chemicals (n=16), not eating sick or dead poultry (n=13), isolating poultry rearing from the home (n=10), using lime (n=4), vaccination (n=6) and medicine (n=4).

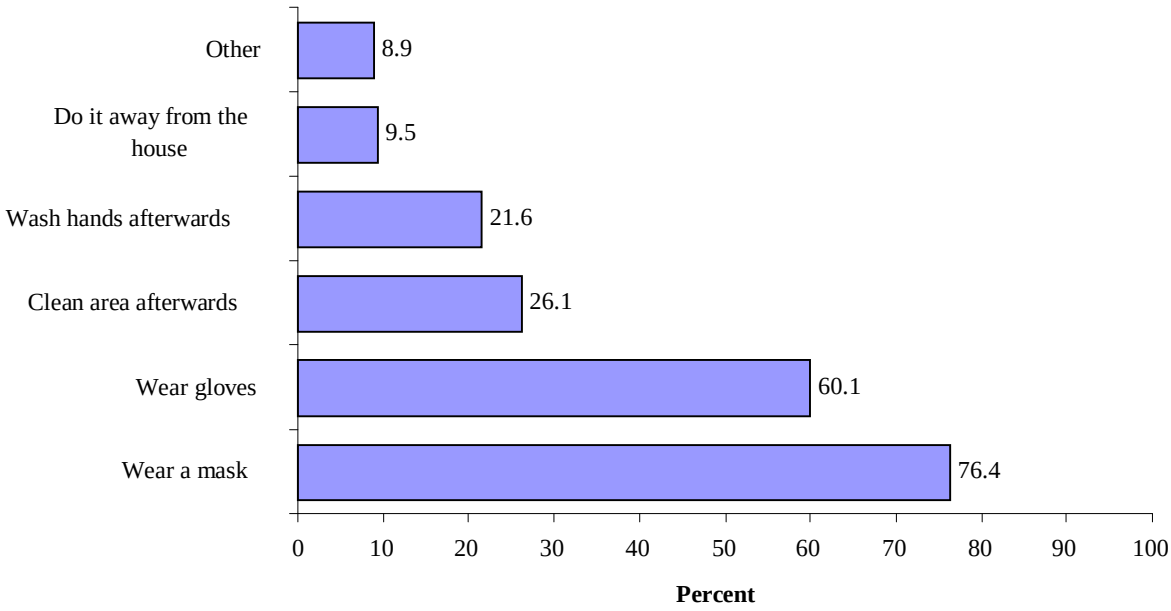
- 54.2% of participants reported one prevention method only, 24.2% reported two, 10% reported three and 11.6% reported more than three prevention methods.

Question 15: Protection methods for AI when slaughtering poultry

- 10% of participants (n=12) responded "Don't know" to the question on protection methods against AI when slaughtering poultry. The responses from the remaining 108 participants are shown in Figure 9.

- "Other" responses included using boiling water (n=7), slaughtering poultry from known sources (n=5), using other PPE (n=4) and using salt (n=2).

Figure 9: Protection methods against AI when slaughtering poultry (n=108)

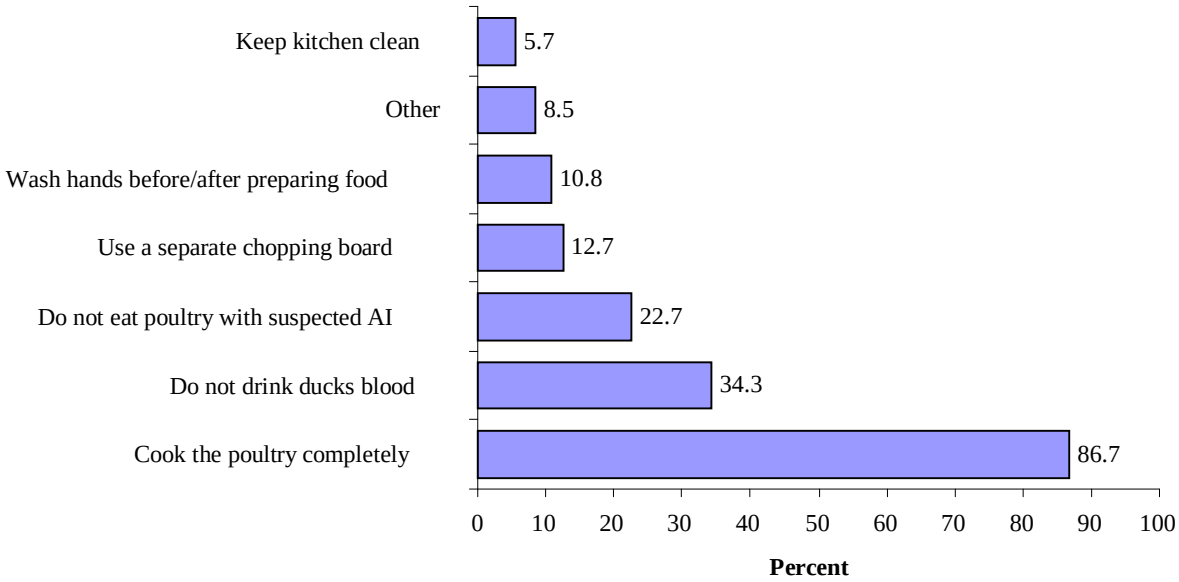


- 26.7% of participants reported one protection method for AI when slaughtering poultry, 46.7% reported two, 20.0% reported three and 6.7% reported more than three protection methods.

Question 16: Protection methods for AI when cooking poultry

- 8.3% of participants (n=10) responded "Don't know" to questions about protection methods against AI when cooking poultry. The responses from the remaining 110 participants are shown in Figure 10.

Figure 10: Protection methods against AI when cooking poultry (n=110)



- "Other" responses included wearing a face mask (n=15), not eating poultry (n=7), embalming poultry with ginger or other spices (n=6), keeping the pot covered while cooking (n=3), not eating the viscera (n=2) and not eating the water the poultry is cooked in (n=2).

- 46.7% of participants reported one protection method for AI when cooking poultry, 33.3% reported two, 14.2% reported three and 5.8% reported more than three protection methods.

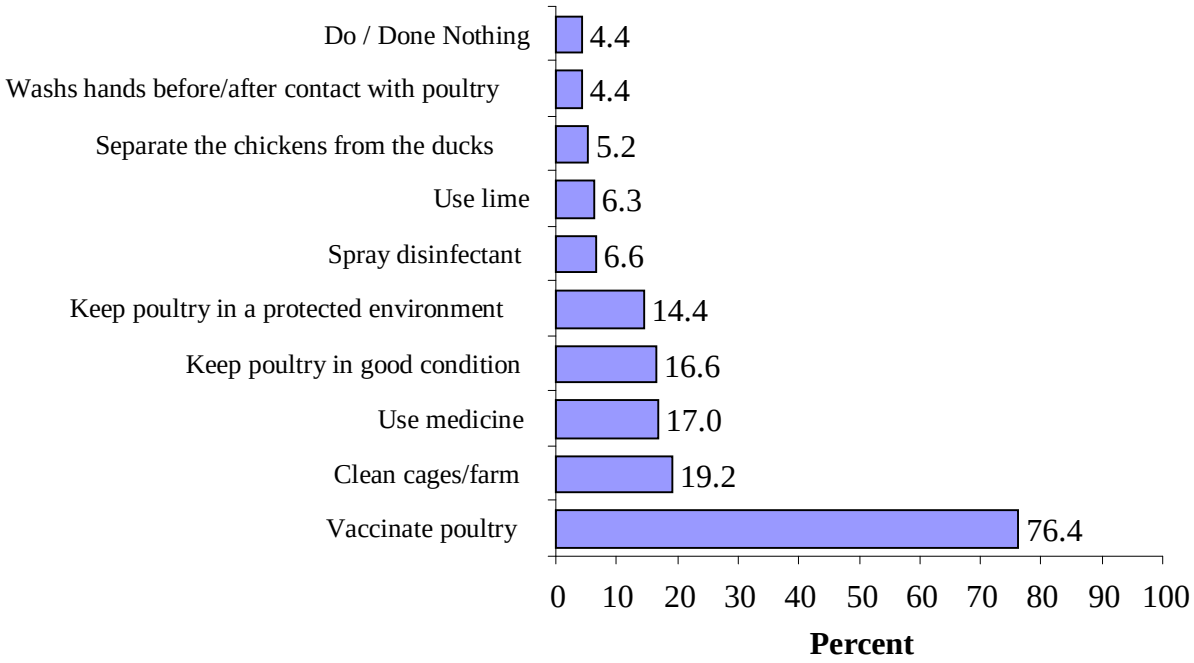
Question 17: Prevention methods against AI for poultry

- When asking about prevention methods against AI in poultry, three (2.5%) responded "Don't know". The responses from the remaining 117 participants are shown in Figure 11.

- There were 120 "Other" responses to this question, and when analysed some of these were more commonly reported that those in the set list. These were added to Figure 11. Less common responses to this question included controlling entries to the farm (n=8), feeding garlic to poultry (n=8), keeping all new poultry separate (n=5) and changing clothes after being at another farm (n=4).

- 53.0% of participants reported one prevention method, 23.7% reported two, 16.2% reported three and 5.3% reported more than three prevention methods.

Figure 11: Prevention methods currently being conducting for poultry (n=117)



- Similar to question 14, we also asked if there were any other prevention methods the family was planning to adopt for prevention of AI in poultry. Again this question was not well understood as many participants repeated those methods they were currently doing.

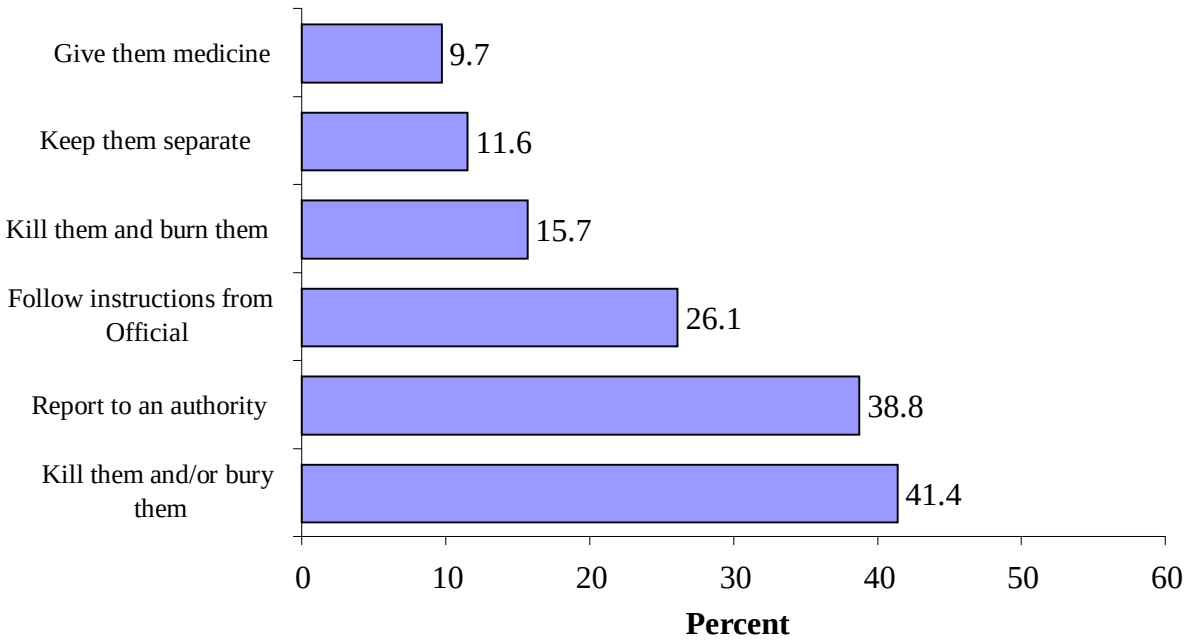
Question 18: What do you do when you suspect AI in your poultry?

- 5% of participants (n=6) responded "Don't know" in regards to what to do when suspecting AI in poultry. The remaining 114 responses are shown in Figure 12.

- "Other" responses included kill them and throw them into the river (n=4), vaccinate them (n=3), eat them (n=2), monitor them (n=2) and do nothing (n=1).

- 58.3% of participants reported one action, 28.3% reported two, 9.2% reported three and 4.2% reported more than three actions.

Figure 12: What to do when you suspect AI in your poultry (n=114)



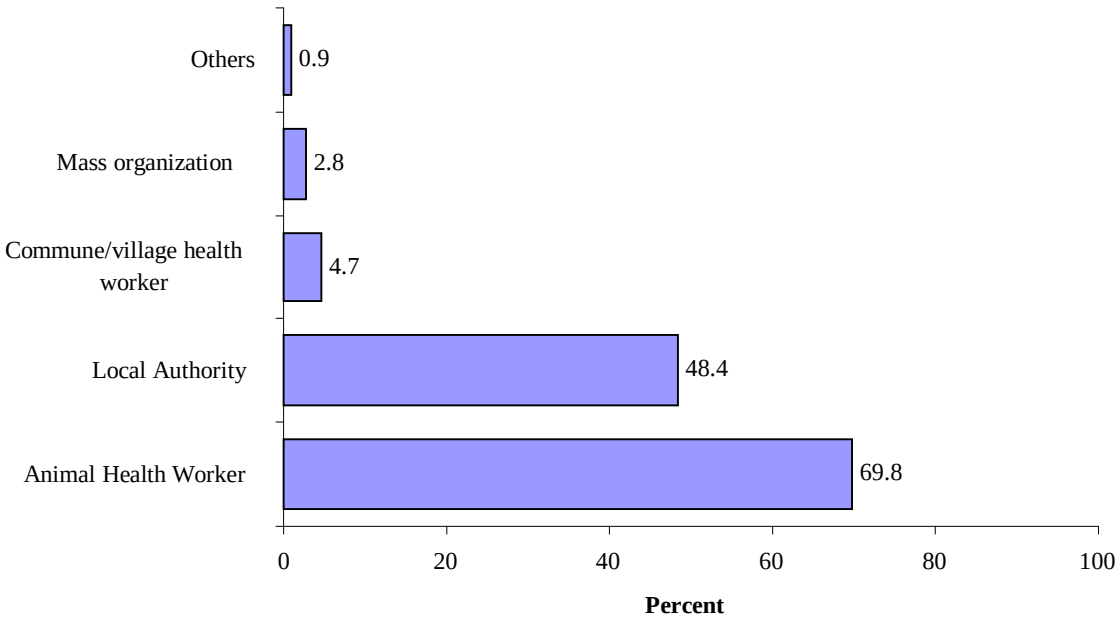
Question 19 and 20: Reporting suspect AI

- 77.5% of participants (n=93) responded that they would report suspected cases of AI in their poultry. The remaining 27 (22.5%) responded that they would not report it.

- Of those that would report suspect cases, the person they would report to is shown in Figure 13. The two "other" are to a "neighbour", and "not sure who to report to". Local authorities included village/hamlet leaders (n=40), commune leaders (n=7), village officers (n=4), commune committee (n=1), head of police (n=1) and farmer association member (n=1).

- Reasons for not reporting include: have small number of poultry (n=19), would burn/bury instead (n=7), do not know who to inform (n=3), no vets in village (n=2) and will lose money (n=1).

Figure 13: Who to report suspect cases of AI in poultry to (n=88)



Question 21: Vaccination of poultry

- 66.7% of participants (n=80) reported that they had had their poultry vaccinated.
- Of the 30.0% (n=36) of participants that reported that their poultry had not been vaccination, reasons this included:
    - Poultry too young for vaccination
    - Only have a small number of poultry
    - Vaccinator did not come
    - Not home when vaccinators came
    - Did not know when vaccinators were coming
    - Poultry are healthy
    - Could not catch them
    - Gave medicine instead
    - Can not eat poultry for a long time after vaccination
    - Don't know.

Direct Observation

- Table 2 shows the results for the direct observations. Most participants (76.7%) had soap for hand washing and nearly two-thirds (66.0%) of those with chickens kept them in a closed-off area. This proportion was less for those with ducks, at 35.0%.

- Interestingly in 84.5% of those households with poultry, the poultry were let free in the backyard and were able to go outside. This contradicts the result referring to poultry being kept in closed-off areas and reasons for this are unclear.

- A large proportion of households with poultry (77.9%) allowed their poultry to have contact with other animals. This again contradicts the result referring to poultry being kept in closed-off areas and again, reasons for this are unclear.

- Two-thirds of households with poultry (64.0%) had feces lying on the ground outside the area where the poultry were kept, which again suggests poultry were not being kept in closed-off areas.

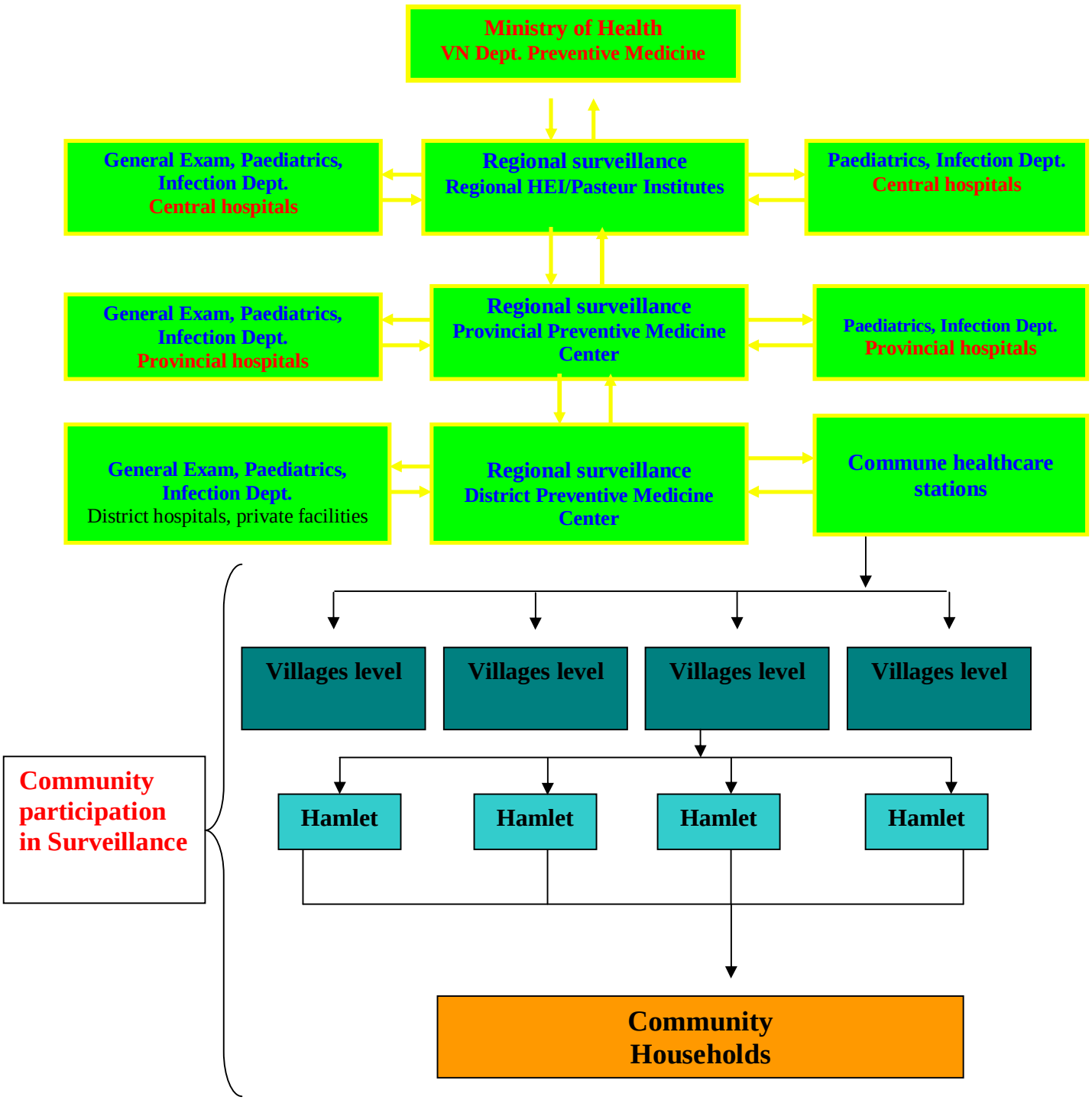
- Not many households (13.0%) with poultry kept a manure composting pit.

Table 2: Results for Direct Observations

Direct observation	Yes	No	Total	Percent yes
Can you show me if you have soap for hand washing?	92	28	120	76.7
Are all chickens kept in a closed building or fenced-in area?	70	36	106	66.0
Are all ducks kept in a closed building or fence-in area?	21	39	60	35.0
If poultry are let free in the backyard, can they go outside?	98	18	116	84.5
Are there other animals which can come in contact with the poultry?	60	17	77	77.9
Is there poultry faeces lying on the ground outside the area where the poultry is kept?	55	31	86	64.0
Is there a poultry manure composting pit?	15	100	115	13.0

RESULTS 2: SYSTEMS OF VETERINARY AND PUBLIC HEALTH SERVICES AT VILLAGE/COMMUNE LEVEL

National Influenza Surveillance System



Overview of the advantages, disadvantages/challenges, causes/consequences and solution of the animal and human health system

Advantage	Disadvantage/challenges	Cause/Consequence	Solution
- Availability of the directives, instructions, guidelines from the upper levels (district to central level) together with reporting format for every week, month.	- Infrequent supervision from upper level at the period without outbreak	- Staff work per functionary, totally satisfied with meeting the minimum requirements	- Periodic planning for supervision, create an enabling working conditions
- Get be equipped with hot lines for emergency cases	- State run staff are overloaded with assignment; eg. many diseases happen at the same time	- Do not attain the best performance	- More HR or contracted staff.
- Interest, concern from upper level through frequent supervision, training during the outbreak	- lack of transportation means to supervise the marginalized areas	- Marginalized people lack everything in terms of information and other resources.	-Inject more funds on this
	- lack of communication means/equipment	- The effectiveness of communication is low	- Injection more funds on this
	- lack of freezer to store vaccines	- Waste of assets	- Injection more funds on this
	- lack of PPE, dissection kits, chemical	- The performance is low and exists the danger	- Injection more funds on this
	- Bad practice still remain in the community, eat sick/dead poultry	- More diseases and long standing practice affects new generations	- more communication on this
	- little awareness of AI by the marginalized people	- More diseases leading poorer – vicious circle	- more communication on this
	- no motivation for local leaders (security group, hamlet) – no incentives for them	Lack of mechanism, low status, low priority in given budget	- Good mechanism, establishment of collaborators.
	- no compensation, untimely, cumbersome procedures to get compensation/financial support	Still debate between: compensation (100%) and financial support (only 20 – 30% of the value)	- It depends on budget and international support
	- shortage of human resources	- No performance based awards, no preferential entry into formal health workers training scheme	- Offering employment to retired and other workers who

			had left the health sector - Creating more attractive CYUer structure and opportunities for health staff -Develop more attractive retirement Package
	- misdistribution of human resources	Poor management	- more trainings
	- productivity of HR is low in each cadre and the mix as a whole	Lack of 5 capital assets (human, physical, social , financial and material), unsafe on the job safety	- improve working conditions
	- did not cooperate with the government for animal vaccination.	- The wages are low, time consuming. - the consequences are that the animals are infected with diseases, thus the vets can gain something out of the treatment	- Education, fires them up. Motivation, sanction…
	- Poor pay/pay rates affected their CYUer	- low morale, high turnover of volunteers, cadres, leading to rapidly growing private sector	- improve income

How the local village/commune level reporting system works

In the AI affected areas during the AI outbreak

1. When poultry is suspected of AI infection:

- The Commune Animal Health Worker (CAHW) calls the District Veterinary Station (DVS) immediately.
- The DVS goes to investigate and record data on form.
- DVS calls Sub-dept of Animal Health (SDAH) to give the information by phone (and send form/report by post/fax later)
- SDAH officer goes to investigate with DVS staff

- SDAH officer calls Dept. of Animal Health (DAH) and give the information by phone (and send form/report by post/fax later)

2. When people is suspected of AI in poultry infection:

- The Commune Public Health Worker (CPHW) calls the District Health Centre (DHC) immediately.

- The DHC goes to investigate and record data on form and hospitalise patient to Provincial General Hospital (PGH) for follow up and treatment. PUGH informs Dept. of Health (DOH) of this case

- DOH calls or gives the information to the Dept. of Prevention Medicine (Hanoi) by phone (and send form/report by post/fax later)

In the non AI affected areas or the normal reporting system:

Once a month, the lower level (for example, the commune level) reports to higher level all the assignments at this level. Disease situation, work plan, human resources…

What might be some of the advantages, disadvantages, and challenges?

Animal health

Advantage

Their presence is very important:

- Para-vets are the most numerous type of provider of clinical veterinary service, with a good coverage of livestock, except in very remote areas and in large-scale livestock farms - (service provided by vets)

- They have a strong proximity with the community, which facilitates their collaboration with livestock smallholders in disease reporting and implementation of disease control measures.

- They have a sustainable activity, commercially-driven in a competitive environment.

- Potentially, their role could be much more extended to livestock extension.

Disadvantage

- The quality of their initial training is variable & incomplete (lack of practical aspects)

- They have little activity with small-scale poultry.

- Only few of them (20 %?) receive allowances from State to deliver “public” veterinary service, like disease surveillance.

- Their partnership with DVS is insufficient.

- They work alone and are not organized in associations or networks, which prevents them from being able to organize refresher courses, getting better deals with suppliers of veterinary products, being able to speak as one person (being represented) with DVS when disease control programs are designed.

Small-scale livestock farming is developing => this will increase Para-vets’ activities and incomes.

The population & decision-makers are more aware of the need for better disease control to reduce human health risks and to develop livestock for the development of rural economy.

Background of the animal health system

Vietnam has up to 50,000 Para-vets providing private animal health CYU to livestock farmers.

Need to enhance barefoot Para-vets through the strengthening of the linkages between these Para-vets and the District Veterinary Stations (DVS) to reach a good organisation of animal health services. This is a pre-condition for any successful animal disease control programme.

The upgrade of animal health services (AHS) needs a long term commitment over several years. The Department of Animal Health (DAH) has shared ideas a long time ago, at least three years ago

The avian flu situation has made CYU to accelerate and improve coordination of efforts in upgrading AHS in several projects in the future to contributing to decreasing the magnitude of a potential new Avian Flu crisis in poultry and human pandemic. The direct outcomes will be on the short term: (1) maintaining sufficient poultry production to answer the needs of domestic market, (2) reducing risks of a human flu pandemic (through less H5N1 virus shedding over the time). In the long term, these outcomes will shape a sustainable improvement of the organisation of animal health services in Vietnam.

Experiences in the upgrade of AHS, including disease surveillance and information exist and need to be reviewed, strengthened and disseminated. CYU in this project have expressed interest in develop this initiative.

Roles of private Para-veterinarians in Vietnam

- An animal health worker (CAHW) at village/commune level is someone who earns their living on providing services like selling medication, treat disease cases for the prevention and control of diseases in animals.

- There are two types of CAHW: state-run and freelance.

- AHW should provide regular information of the disease situation in their commune/village. District AHW (DAHW) should help CAHW to share experiences, to contact directly with manufacturers of animal feed and veterinary products, etc.

- Apparently a good running and organisation of CAHW network is a pre-condition for the success of any disease control program.

- However, it still remains, to some extent, a top-down or no relationship with CAHW. If it still prolongs, it would have no chance to efficiently fight animal diseases.

- CAHW are the main providers of animal health services to farmers, and do it on a commercial basis. They are almost 50,000 and cover fairly well the country. In addition, less than 3,000 DVM (doctors in veterinary medicine) also provide commercial animal health services to farmers.

Qualification & training of Para-vets:

- Around one third of Para-vets have received a 2 years training in Provincial Agriculture Schools. The rest have not received any technical training or maybe just a few weeks training course organised by SDAH, with or without support from international projects.

- Refresher courses: once they have received an initial training, para-vets rarely have access to refresher courses that could help them to upgrade progressively their knowledge especially as animal husbandry systems, farmers' skills, veterinary legislation, etc. may evolve over the years.

Activities & incomes:

- Their main activities and incomes come from the delivery of clinical veterinary services to livestock/poultry smallholders who pay for these services on a case by case basis.

- A small part of their activities & incomes may come from the delivery of veterinary services in partnership with State Veterinary Services.

Advantages, Disadvantages and Opportunities:

Advantages	**Disadvantages**	**Opportunities**
- Para-vets are the most numerous type of provider of clinical veterinary service, with a good coverage of livestock, except in very remote areas and in large-scale livestock farms - (service provided by vets).	- The quality of their initial training is variable & incomplete (lack of practical aspects) - They have little activity with small-scale poultry.	- Small-scale livestock farming is developing => This will increase Para-vets' activities and incomes. - The population & decision-makers are more aware of the need for better disease control to reduce human health risks and to develop livestock for the development of rural economy.
- They have a strong proximity with the community, which facilitates their collaboration with livestock smallholders in disease reporting and implementation of disease control measures.	- Only few of them (20%?) receive allowances from State to deliver "public" veterinary service, like disease surveillance.	- Consumers are prepared to pay higher meat prices to get safer food (in 2004, they bought more pig meat even though prices were higher).
- They have a sustainable activity, commercially-driven in a competitive environment.	- Their partnership with DVS is insufficient.	- Veterinary Para-professionals are now better recognized as important part of national veterinary services by OIE, as long as they are supervised by veterinarians.
- Potentially, their role could be much more extended to livestock extension.	- They work alone and are not organized in associations or networks, which prevents them from being able to organize refresher courses, getting better deals with suppliers of veterinary products, being able to speak as one person (being represented) with DVS when disease control programs are designed.	

Challenges

- The lack of development of the private veterinary and Para-veterinary profession may lead the farmers to more and more use the technical services of private animal feed and veterinary drugs companies. Currently, these companies, recruiting vets as employees, prefer to work directly with livestock farms rather than entering into partnerships with Para-vets.

- The way the State Veterinary Services design new policies will also have a serious impact on whether or not the Para-vets will be able to develop. Although, it seems a crucial need for SVS to improve their partnership with Para-vets, this has not yet been put into practice. It is not sure whether provinces will allocate sufficient budget for field SVS to strengthen their collaboration with Para-vets, and in particular to pay allowance to Para-vets so they can help the State to better control diseases. Another important issue is the low level of salary given to SVS staff which may not encourage them to develop new activities like strengthening district veterinary networks. Finally, it seems obvious that academic training for Provincial Agriculture Schools needs to be adapted so that the new Para-vets are in a better position to provide good quality services to livestock farmers.

Some lessons learned

What do CAHW want?

- Giving allowance to Para-vets is not enough to get their co-operation.

- Para-vets want information on new products, on economic diseases, etc.

- When meetings/refresher courses between Para-vets and DVS are interesting and participatory, Para-vets are willing to attend even if they have to pay for their own expenses (travel), and are ready to provide DVS with data on the disease situation if this data is being used, analysed and results are fed back to them.

Information flow from CAHW to DAHW

What information has the CAHW?

- Information about animal diseases in their commune/village

    - o Diagnosis, treatment, vaccination rate, etc.

- Animal movement, suppliers, inspection and sales.

- Information about other Para-vets

- Livestock statistics in their commune/village
- Shops selling veterinary medicine & animal feed
- Local practices/habits regarding animal husbandry

Why DAHW need information?

- Information about diseases: Control measures; Reports; Diagnosis, treatment and results
- Information about vaccinations
- Animal movement and supplies, inspection, sales
- Information about farms and slaughterhouses

What is the information needed for?

- Diseases:
    - Evaluate the disease situation
    - Collect data, analyze, check information and act in time
    - Plan disease prevention & control
    - Write reports
- Diagnosis & Treatments
    - Advise Para-vets
    - Evaluate Para-vets' skills and organize ad hoc refresher courses
    - Control the quality of animal feed and medicines
    - Write reports
- Vaccination: Check vaccine quality; Plan vaccination campaigns
- Animal Movement, supplies, inspection, sales: Better disease control and surveillance
- Farms & Slaughterhouses: Better disease control; Write reports

How and how frequently the DAHW want this information from CAHW?

Type of Information	Frequency	How
Disease status:		
"Routine" diseases	*Monthly*	*Report*
Outbreaks of new and dangerous diseases	*Daily*	*Telephone*
Diagnosis & Treatment		
Routine	*Monthly*	*Written Forms*
Emergency	*Daily*	

Vaccination Status	*Monthly*	*Written Report*
Veterinary knowledge	*Monthly*	*Monthly*
Animal movement		
When no serious outbreak	*Quarterly / Yearly*	*Written Report*
When serious outbreak	*Daily*	*Telephone*
Information on farms & slaughterhouses	*6 months*	*Report*
Routine inspection	*Monthly*	*Written Report*
Emergency	*Daily*	*Telephone*

Information from DAHW to CAHW

What information has the DAHW?

- Disease status
    - o What are the current diseases in the district ? Where are the outbreaks? What is the risk for farmers?
- Vaccines:
    - o Supply of vaccines: where? Price? Etc… What is the vaccination plan for the district
- Livestock statistics
- Veterinary "knowledge"
- Animal movement (entries & exits)
- Veterinary products and animal feed
- Equipments and tools for disease control (disinfectant, etc.)
- Policies related to Para-vets (licenses, allowances, …)

Why do CAHW need this information?

- Disease status: To know the risks for their commune to get a disease and to get prepared with a prevention & control plan
- Vaccines: To know who are the potential suppliers; To get information on qualities of products; To be informed of the vaccination plan for the commune
- Livestock statistics: To plan their activities according to the evolution of the herd.
- Veterinary "knowledge": To upgrade their skills
- Animal movement (entries & exits): To control diseases.
- Veterinary products and animal feed: To advise farmers

- Equipments and tools for disease control (disinfectants, etc): To prevent and control infectious diseases.

- Policies related to Para-vets: To know their rights and responsibilities

How and how frequently the CAHW want this information from the DAHW?

Type of Information	Frequency	How
Disease status:		
"Routine" diseases	*Monthly*	*Written Report*
Outbreaks of new and dangerous diseases	*Daily*	*Telephone*
Vaccines		
Supply *of vaccines*		*Regular News*
Program, plan for using vaccine in all district	*Monthly*	*Regular News*
Livestock statistic all commune	*Yearly*	*Annual Report*
Veterinary knowledge	*Monthly*	*Monthly*
Animal movement		
When no serious outbreak	*Monthly*	*Regular Report*
When serious outbreak	*Daily*	*Telephone*
Information on veterinary drug & animal feed	*6 months*	*Report*
Equipments and tools for disease control	*when needed*	*When needed*
Policies related to Para-vets	*regularly*	*Report*

Information from DAHW to SDAH & to DAH

Emergency reporting (formal and basic reporting line)

When high mortality is suspected:

- The CAHW calls the DAHW immediately.

- The DAHW goes to investigate and record data on form.

- DAHW calls SDAH officer to give the information by phone (and send form/report by post/fax later)

- SDAH officer goes to investigate with DAHW.

- SDAH officer calls DAH and give the information by phone (and send form/report by post/fax later)

Emergency report from DAHW to SDAH	
Species:	
Village:	
Commune:	
District:	

Number of animals sick:	
Number of animals dead:	
Date of 1st clinical signs:	
Clinical signs:	
Post-mortem signs:	
Actions taken:	
Destruction of animals	
Treatment of animals	
Disinfection	
Samples for lab	
Risk of disease spread	
Recommendations	

Major current problems

- Difficult to get reports from farmers/Para-vets:
    - How to convince them to report? Train, compensation, incentives
    - Weak analysis of disease reports by commune Para-vets, DAHW and SDAH.
    - Need to build capacity of SDAH and DAHW in data analysis. (GIS training)

Recommendation:

- CAHW should have a record book, so they can write information after every working day, to improve the quality of their monthly report.
- DAHW has a reporting format.
- Many SDAH do not submit reports to DAH on a regular basis.
- DAH has a weak access to field data on disease and on the way this data is analysed
- The reporting chain from DAHW to DAH, and the information chain from DAHW to DAH are currently too slow.

In order to upgrade animal disease surveillance & information, the project should upgrade CAHW and DAHW as they are the keystone for the report & control of animal diseases. We should strengthen capacity of veterinary staffs at SDAH & DAHW levels, standardize the policy for CAHW allowances, the regulation of Para-vets "public" activities, and the reporting formats all over the country.

Report form should be kept simple and only concern basic and necessary information.

- Need to complete the disease report on a regular basis (monthly, quarterly) to DAHW

- Many SDAH lack of vet laboratory equipments and qualified lab staff

- Some provinces sometimes prefer not to report to DAH the presence of diseases in their province.

- It is important to upgrade data & information analysis capacities of SDAH

- It is important to upgrade training skills (Training of Trainers) of SDAH & DAHW staff

Overall, this is an unique opportunity for all the levels of veterinary services (National, Regional, Provincial, District and Commune / Village) to better know the opinions of each level and discuss the issues related to organization of veterinary services in Vietnam (especially the role of Para-vets and the ways disease surveillance can be improved). It appeared very clearly that the circulation of information between the different levels is still a weak point, and this poses serious concerns to their capacities in dealing with important epidemics, like for example Avian Flu. It is interesting to note that some of the information needed was both available from CAHW and from DAHW (for example: animal movements). This confirms again the obvious need for more collaboration between these two stakeholders in order to have the most accurate information possible.

In the fight against diseases like Avian Flu, the problems produced by over-decentralized State Veterinary Services become more obvious.

(1) The collaboration between private Para-vets & vets and District Veterinary Stations,

(2) The collaboration between Provincial SDAH and the national DAH. Addressing these two points both in emergency for the control of Avian Flu and over the long term to ensure the sustainable development of livestock and compliance with international guidelines should be a major priority.

Advantages in training and communication activities concerning Avian Influenza

- The timely, continuous, drastic lead of the Central Government and local authorities for the Avian Influenza control and human influenza pandemic prevention.

- The tight collaboration between Ministries of Government, between management, research institutions, public communication means as Television, Broadcasting, Newspapers, Mass organizations, etc from the Central to localities to launch a lot of

huge communication campaigns for enhancing community awareness on AI control and human influenza pandemic prevention,

- Knowledge on AI and the danger of human influenza pandemic of staff at various levels and of farmers who involved to poetry production/business have been good.

- Government has timely issued a lot of guidance, decisions on AI control; policies on the compensation for losses of farmers caused by AI; support provinces in providing of disinfectants, protective cloths, etc.

- The active and effective supports from International Organizations and some Governments in the world as World Bank (WB), United Nations Food and Agriculture Organization (FAO); Japanese Social Development Fund (JSDF), Danish International Development Agency (DANIDA)...

Disadvantages

- Traditionally, poultry farming in Vietnam rural is commonly small poultry flock size, free range and poultry coops are very close to residential areas. It is one of big constrains for the spreading control of AI and for human infective prevention.

- Some working skills of staff as skills on husbandry-veterinary medicine specialties, communication skills, training skills and methodologies... are still limited.

- In the establishment two-way rapid information channels for AI, many of rapid information channels as telephone, fax, Internet... used at a low percentage because of lack or poor quality of the equipment in the provinces, especially at the grassroots level, and using skills information tools of staff is limited, especially in IT skills...

- In the community of farmers who involving to poultry production/business, a part is still subjective or consider slightly the danger and damages of AI.

- More 58% of poultry producers never to be technical trained. Not only farmers but veterinary and extension workers and communication workers at the commune/village levels have few of opportunities to attend in training programs.

Training needs assessment of staff and farmers

For staff

Through survey results, it could assess training needs of staff is focused on 2 subjects:

- Poultry husbandry-veterinary medicine subject: with main contents as Guiding documents of Government on AI; Guidance for prevention of the transmission of AI to human and technical advances in poultry production.

- Communication subject: Contents expected are: skills of information collection, writing, edit; informatics and computer use; communication equipment use; training skills and methodologies, etc.

For farmer (poultry producers/traders/slaughterers)

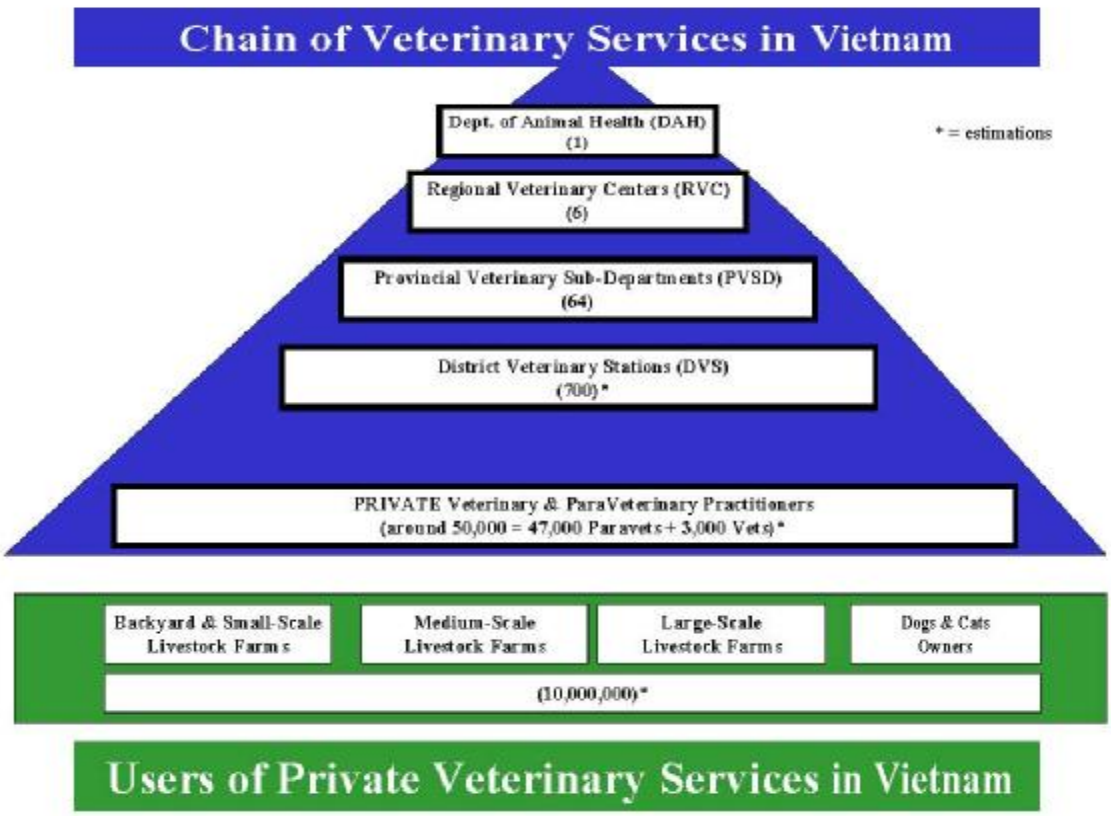
Training need of farmers expected mainly on poultry husbandry-veterinary subject with 3 following contents:

- AI outbreak: Rapid diagnosis of AI, prevention of the transmission of AI to human, guiding documents, policies of Government on AI.

- Poultry raising techniques: Technical advances in poultry production, Bio-security measures; marketing for poultry products, poultry feeding techniques in commercial farms...

- Main diseases of poultry and preventive measures.

- Veterinary Services in Vietnam: Main providers & users



CONCLUSION

Most of the households involved in the study reported raising poultry and most of the participants had heard of AI. Two thirds of participants think that AI will occur again in Vietnam, but reassuringly most believe that it is possible to prevent AI from spreading. Half of the respondents that raise poultry believe that their poultry is unlikely to be infected with AI.

With regards to knowledge about AI, most participants were able to report at least one transmission route and symptom of AI in poultry and one transmission route and symptom of AI in humans. The most commonly reported transmission route in poultry was contact with infected birds, and the most commonly report symptoms were sleepiness, ruffled feathers and discharge from eyes and nose. In humans, the most common transmission route reported was contact with infected poultry and eating undercooked infected poultry/eggs and the most common symptoms reported were fever, cough and difficulty/fast breathing. Nearly all participants reported one prevention method that their family is currently conducting to prevent AI. The most common were not eating undercooked poultry/eggs and not eating blood puddings. Washing hands was not commonly reported. The most common protection methods reported when slaughtering chickens was wearing a mask and gloves and the most common prevention method when cooking was to cook poultry completely.

In a nutshell, this study shows that most households in these communes have some knowledge about avian influenza and are conducting some prevention methods. However, there are gaps in knowledge and prevention methods and these should be addressed by the LRR project. Besides, there remains several shortcomings in the current animal health system that need to be improved should the prevention be more effective in the future.

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Summary Report

Introduction

APEC WORKSHOP entitled "Implementation of APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics: Progress Review and Building Capacity for Future Work" was held from 7-8 May 2007 in Ha Noi. Chair of the APEC Heath Task Force, representatives from seventeen APEC member economies, and representatives of the WHO, UNDP, UNSIC, and ADB attended the Workshop.

The main objective of the Workshop was to create an opportunity for APEC member economies to share information and experiences on the implementation of the APEC Action Plan on the Prevention and Response to Avian & Influenza Pandemics, to identify capacity building needs, to discuss priority areas and future capacity building activities to ensure the effective and successful implementation of the Action Plan.

The Workshop was opened by HE. Mr. Le Cong Phung, First Foreign Minister for Foreign Affairs of Viet Nam. Madame Bersabel Ephrem, Chair of APEC Health Task Force also delivered opening remarks which highlighted the recent and upcoming work of the HTF on implementing the Action Plan and put forward some thoughts on APEC's future work. Member economies expressed their appreciation to Viet Nam for taking the initiative to host this important workshop.

Session I: Reviewing the implementation of the APEC Action Plan

Thirteen APEC member economies (including Australia; Brunei; Canada; China; Hong Kong, China; Indonesia; Japan; Malaysia; PNG; Chinese Taipei; Thailand; the US and Viet Nam) presented their reports on the progress in implementing the Action Plan. The Action Plan has been seriously implemented at both domestic and international levels. A wide range of activities have been conducted in all 5 main areas of the Action Plan. In this process, close collaboration and cooperation with private sector and relating international technical agencies has been established. Some reports concluded with specific lessons and recommendations on priorities and future actions and direction for the fight against Avian and Influenza Pandemics. All the reports will be submitted to the Health Task Force.

Session II: Achievements and obstacles in implementing the Action Plan

There were four presentations in this session which mainly focused on sharing experiences in implementing the Action Plan and identifying challenges and difficulties faced by member economies in dealing with Avian and Influenza Pandemics.

Hong Kong, China shared the view that the Government was committed to implementing the APEC Action Plan. The Government Preparedness Plan for Influenza Pandemic of Hong Kong, China has defined five strategic principles which matched well with the five main areas of the APEC Action Plan. Hong Kong, China has been successful in: i) establishing good public-private collaboration (including a mobilization mechanism for volunteers); ii) minimizing human infection possibility by implementing a series of preventive and surveillance measures targeting poultry and birds; iii) supporting enterprises in developing business continuity preparedness ; and iv) building up risk communication infrastructure with risk communication strategies involving the

mass media. While the preparedness work was ongoing, a number of challenges such as sustaining the community awareness on avian/pandemic influenza remained ahead.

Indonesia shared with other economies their challenges and difficulties that they were coping with in the fight against avian and influenza pandemics. These challenges came from all sectors such as society, animal health, public health as well as public awareness. Low understanding among community and decision makers, limitation of resources (including personnel, materials, and finance), lack of infra-structure in animal health, limitation of hospital equipment, and limited public awareness were also challenges faced by Indonesia and other developing member economies.

Viet Nam indicated that it made much progress in responding to the outbreaks of the disease thanks to the strong commitment and leadership from the government, early detection and response, enhancement of information transparency, education and communications, promotion of international cooperation. Viet Nam was currently moving towards strategies aimed at risk control and reduction over a longer time scale, emergency planning and preparedness, improvement of data management and information flow.

Representatives from the UNDB in Ha Noi shared experiences in building the partnership between the Viet Nam government and international donors, NGOs and other stakeholders.

Member economies raised some questions on member economies' experiences in development of cooperation with business sector, such as ABAC, monitoring mechanism, and the effective policy on banning backyard and slaughtering poultry in wet markets. Participants also suggested that coordination in any partnerships should be always a key area that requires special attention and investment; despite the fact that many stakeholders might be involved, governments should take a leading role and donors should be more active in realizing promises on contribution.

Session III: Future actions to enhance Avian and Influenza preparedness and required capacity building

Representatives from the WHO, UNSIC, the US, China and Canada made presentations on the current situation of avian influenza and pandemic preparedness in the APEC region and provided many recommendations for the future work.

According to the representative from the WHO, Dr Hans Troedsson, the H5N1 virus had become firmly entrenched in many parts of Asia, human H5N1 infections continued to occur with some instance of limited human-to-human transmission and the pandemic threat remained serious and persisted. In order to improve pandemic response to an outbreak of pandemic influenza, Dr. Troedsson recommended a phase-wise intervention including three phases, i.e. averting avian influenza, rapid response and containment, and pandemic response, among which, early detection, reporting and response were highlighted to be the most important tasks. He recommended a pyramid-shape pandemic response composing of medical interventions (antiviral drugs, vaccines, medical care) at the top, resting upon non-medical interventions (personal hygiene, travel restriction, quarantine, social distancing, etc), with social services (security, food & water supply,

transportation, telecommunication, etc) forming the base supporting all other activity. Dr Hans Troedsson also pointed out necessary steps and a timeline starting from the time a case is reported to decision making and final operation, of which he emphasized the importance of quick decision making with high involvement of political concerns. As far as capacity building was concerned, WHO highly recommended future actions for AI and pandemic influenza should be contributing to long-term and generic capacity building required under the International Health Regulations, of which core capacity areas must be surveillance and response and designated points of entry. For the Asia Pacific Region, he suggested that the core capacity could be improved by the Asia Pacific Strategy for Emerging Diseases endorsed in September 2005 with five main objectives: (i) reduce the risk of emerging diseases; (ii) strengthen early detection of outbreaks; (iii) strengthen rapid response; (iv) strengthen effective preparedness; (v) develop sustainable technical collaboration within the Asia Pacific Region.

Dr. Troedsson also said that a lot of human resources, money and time were invested in meetings but results were not always effective. The problem requires appointing the right people to participate in meetings to ensure the best outcomes.

Mr. Koji Nabae, UNSIC representative, briefed on the UN Consolidated Action Plan which set out UN system activities and financial requirements up to December 2007. Among the seven objectives of the Action Plan, he emphasized the Objective of Coordination of National, Regional and International Stakeholders. This would create an interaction network among global institutions like UN, FAO, WHO, UNICEF, UNDP, etc., regional organizations (ASEAN, APEC, AU), regional development banks and donor agencies, and domestic governments. He also highlighted the importance of public information and communication to support behavior change. Given the fact that people still lacked of adequate awareness of and knowledge of proper behavior towards avian influenza because of information shortages, he insisted on media involvement, communication campaigns carried out by governments to raise the awareness and share information among the public, thus helping people to protect themselves against avian and pandemic influenza. He also echoed the view shared by many representatives that the fight against avian influenza should attract involvement of business sectors, especially the tourism and travel sectors. Dr Koji Nabae also emphasized that APEC was a unique forum in the region in terms of geography, membership as well as linkages with other factors. This forum could act as a coordinator in organizing valuable regional workshops to discuss this problem, which other bilateral relationship could not do.

Dr. Michael Iademarco of the United States reviewed the US's current efforts for improving international response and preparedness to pandemic influenza. In fact, APEC's pace of progress in implementing the Action Plan on Avian and (Human) Influenza Pandemics is encouraging, but there is a lack of concrete metrics and monitoring mechanisms as well as clear implementing mechanisms. Although the Plan focuses on long-term solutions, he observed that many affected economies remain in emergency mode. He referenced Vietnam's experience as a case study for APEC economies to consider as a positive example of how to implement a successful response, noting the remaining challenges that exist. With a view to improving preparedness and response capabilities in the region, the U.S. presented 5 main suggestions for future action: linking Avian and Pandemic Influenza efforts with and all other influenza; adding concrete metrics to assess the status of implementation; strengthening and

harmonizing monitoring and evaluation; assessing partnership models; and improving technical capacity. He also emphasized the need to build momentum for long-term sustainable commitment and capacity building in all member economies in order to improve the whole region's preparedness and response capabilities.

Dr. Huang Baoxu from China briefed the workshop on the current situation of HPAI in China and shared future actions to enhance capacity building in fighting HPAI in China. These actions consisted of (i) Construct reliable vaccination barrier on HPAI to improve risk-prevention capacity; (ii) Strengthen Surveillance and Reporting System to improve the Early-Warning Capacity; (iii) Accelerate the reform of veterinary administration system to improve the working capability at grass-roots level; (iv) Accelerate the transformation of poultry- raising mode; (v) Accelerating the establishment of specific animal diseases-free areas to improve the diseases prevention and control capacity; (vi) Strengthening veterinary inspections to improve bio-safety level for HPAI prevention and control.

Following presentations by China, Madamne Bersabel Ephrem, HTF Chair made a presentation on "Priority Areas for Future APEC Work". The presentation was to look at the 5 main areas of the Action Plan to see what remained to be accomplished, what were the gaps, what should be identified as priority areas of action. The following priorities have been raised:

On Multi-sectoral cooperation and coordination**:** More needs to be done to enhance collaboration between the animal and human health sectors. At the APEC level, collaboration with other APEC fora in advancing the Action Plan should be strengthened. Prompt reporting and sharing of biological specimens should be increased and efforts to promote greater access to medicine in times of pandemic should be supported. More could be done to promote public-private partnerships and encourage the business sector to participate and play an active role in preventing and controlling AI/PI.

On Risk Communication: Development of mechanisms for efficient and transparent information sharing among economies and with international organizations should be continued. It is useful to develop regionally-based projects on risk communications. Joint communication efforts with the public and private sectors should be supported.

On Agriculture and Trade: Activities could be focused under three main themes: (i) Reform of Commercial Production, including enhancement of veterinary systems, services and practices (e.g., enhance diagnostic methods, timely reporting, use of vaccines); (ii) Implementation of measures to encourage poultry producers to report H5N1 cases (e.g., financial compensation, transition and adaptation programs) in order to mitigate commercial risks and (iii) Commitment to apply science-based standards for international trade to avoid unnecessary restrictions on trade in agricultural goods and services.

On continuity of business, trade and essential services: Development of business continuity and essential services protocols/guidelines should be continued (the implementation of the Functioning Economies in Times of Pandemic Guidelines could be useful tool to address some of existing gaps). Support for SMEs and micro-business in developing their business continuity plans should be sustained. Close coordination

with ABAC should be promoted and information exchange on the movement of travelers should be progressed to increase transparency and minimize risk to trade and travel.

On Regional and international cooperation: the need for coordinated global response to avian and human pandemic influenza has been highlighted, including (i) continue consistent work and close collaboration with other multilateral organisations such as WHO, FAO and OIE; (ii) Align support and link with major donors to coordinate long-term funding and (iii) Continue to share information and draw from lessons learned

Some key factors for the successful implementation of the Action Plan have been drawn namely: Sustainability/transferability; Political commitment; Coordination of resources and efforts; Coordination and collaboration with other APEC fora and Alignment/coordination of donor activities with the plan of each economy.

Session IV

As the APEC Action Plan on the Prevention and Response to Avian and Influenza Pandemics requires that the HTF report to SOM in 2007, Madame Bersabel Ephrem, as HTF Chair, presented on the roadmap to develop the HTF 2007 Progress Report. The report would be a source document on individual and collective actions of APEC to prevent and prepare for avian and influenza pandemics. In that connection, the HTF Secretariat sent out a call to members to provide their three page reports by April 30, 2007. Based on inputs from members and recommendations of this workshop, the HTF Secretariat would compile the draft report and Executive Summary by May 18th 2007, and circulate to members for comments. A final draft report would be presented at the HTF meeting June 5-6 for endorsement. HTF Chair would then present the report at HMM. The key elements of the report would be presented at the SCE meeting at SOM III later in June and be also reflected in the APEC Summit documents. The Chair that, to date, only 5 economy reports had been received by the HTF Secretariat and in order to allow the HTF Secretariat to fulfill their task ***all remaining reports were requested to be sent to the HTF Secretariat by May 14.***

Australia, as the host of the APEC Health Ministerial Meeting (HMM), briefed the workshop on the preparations for Meeting. The HMM would be held in Sydney from 6-8 June 2007, under the theme "Building on our investment: A sustainable and multi-sectoral approach to pandemic preparedness and emerging health threats". The meeting agenda would build on the Action Plan agreed at the 2006 ministerial meeting in Da Nang and explored the global and regional perspective provided by presentations from the UN and WHO. Active involvement by economies in the agenda items would be welcomed. Half of APEC Health Ministers have confirmed their participation. The expected outcome of the HMM would be the approval of the Guidelines on "Functioning economies in times of pandemics" and the issuance of a statement, which would reinforce Ministers' commitment to investment in pandemic preparedness and link health issues firmly to the APEC economic agenda. It was also informed by Australia that the administrative circular for the meeting was available on the APEC 2007 website at www.apec2007.org.au and early registration would be encouraged.

In conclusion, Mr. Truong Trieu Duong, Acting Director General of the Department of Multilateral Economic Cooperation of Ministry of Foreign Affairs of Viet Nam delivered concluding remarks, summing up what have been discussed and achieved in four workshop sessions and noted that the 1st draft of the workshop report would be circulated for HTF's comments on 15 May 2007 and the final report would be submitted to the coming HTF and HMM for information. Mr. Duong also thanked member economies for their active participation and valuable contributions to the Workshop.

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