



**Asia-Pacific  
Economic Cooperation**

**“Development of an Information platform for Avian  
Influenza (AI) Community Management and Engagement”  
Project Final Report**

**Health Working Group**

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Produced for:  
Asia Pacific Economic Cooperation Secretariat  
35 Heng Mui Keng Terrace  
Singapore 119616  
Tel: (65) 68919 600 Fax: (65) 68919 690  
Email: [info@apec.org](mailto:info@apec.org)  
Website: [www.apec.org](http://www.apec.org)

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In recent years, the spread of serious infectious diseases such as AI has not only posed enormous threat to human security, but also been a devastating blow to the economic development and trade of all APEC member economies. According to WHO, a cumulative number of 467 Avian Influenza confirmed cases, including 282 deaths, has been reported by the end of 2009.

Ministry of Health, China applied for the project of “development of an information platform for avian influenza community management and engagement” in order to enhance highly pathogenic avian influenza (HPAI) control and prevention in the community level and to promote the information technology being involved into avian influenza community management and community engagement. This project has chosen Shanghai as the pilot site. So far the whole project has been completed by the end of Feb, 2010. Here is the final report of the project.

**□. Objectives**

1. To develop information platform of avian influenza community management and engagement for policy making and

training.

2. To carry out training via avian influenza information platform.

3. To hold an international forum in order to share experience and knowledge with other APEC economies.

#### **□. Project working group**

The project is supervised by MOH, China. Center for health statistics & information is responsible for implementation and Shanghai municipal center for disease control & prevention is in charge of pilot study sites. Within Shanghai municipal center for disease control & prevention, working group is organized by Office of surveillance of communicable disease and emergency response & preparation, and the members are also from department of acute infectious disease control & prevention, microbiology lab, office of information management and department of information technology service.

#### **III. Pilot districts (county)**

Pudong new area, Yangpu district and Chongming County are chosen as the project pilot districts (county). The working staff for the project are from district CDCs, Community health service centers and other community working staff.

#### **IV. Composition of information platform**

According to the project plan, SCDC has completed the detailed project working plan in the end of February. In this working plan, the project was divided into 6 modules, which are as follows:

#### 1. Surveillance module

The surveillance module mainly includes community influenza-like illness (ILI) syndromic surveillance, community unknown pneumonia case surveillance and community avian influenza pathogenic surveillance.

#### 2. Training module

The major purpose of the training module is to carry out the professional training for 4 types of population, which are decision-makers, avian influenza prevention workers, primary health care workers and occupational workers such as vendors of wet market.

#### 3. Information release module

This module is to inform the community residents, medical workers, CDC staff and occupational population with updated avian flu prevention related information in order to promote the community capacity building for avian flu control and prevention.

#### 4. Communication and Interaction module

This module is to establish a bridge between website visitors and experts in the related fields. The questions raised by website visitors can be answered in an efficient and precise manner, and the Q&A can be shared among other website visitors. This module is

available for all website users.

#### 5. Knowledge database module

The knowledge database module is to strengthen avian influenza health education for community residents so that they can improve their engagement and risk awareness.

#### 6. Questionnaires and feedbacks module

This module is to evaluate how well the public master avian influenza related knowledge, and also to obtain comments as well as suggestions via web-based questionnaire.

### V. Surveillance

#### 1. Surveillance sites selection

Two Primary Health Centers and one Influenza-like illness/unknown pneumonia surveillance hospital were chosen by each district (county) as the project implementation sites.

District/ County	Surveillance sites	
Yangpu District	Influenza-like illness/unknown pneumonia surveillance hospital	Xinhua Hospital
	Primary Health Center	Sipin town, Jiangpu town
Pudong New Area	Influenza-like illness/unknown pneumonia surveillance hospital	Pudong New Area People's Hospital
	Primary Health Center	Jichang town and Beicai town
Chong ming County	Influenza-like illness/unknown pneumonia surveillance hospital	Chongming branch of Renji hospital
	Primary Health Center	Chenqiao town and Chenjia town

#### 2. Surveillance material collection and data input

Data from community-based influenza-like syndromic surveillance, unknown pneumonia surveillance and avian influenza

pathogenic surveillance are collected and input into the database. Professional staff can login in the surveillance module of the information platform to upload the surveillance data.

### 3. Surveillance Results

In 2009, among all surveillance community sites in Yangpu district, Pudong district and Chongming county, there was no unknown pneumonia or HPAI case reported.

Moreover, all 3 districts (county) as well as Shanghai municipal CDC have collected and tested 1875 bird/poultry related samples, and the average positive rate was 14.17%.

## **VI. Development of information platform**

### 1. Prophase data collection

SCDC and Pudong, Yangpu, Chongming district (county) CDC completed the data/materials collection by the end of October. The data collection before the establishment of information platform was to prepare the basic information such as training, knowledge database, and etc.

### 2. Information platform needs assessment

Information platform needs assessment is initiated by Office of surveillance of communicable disease and emergency response & preparation, and department of acute infectious disease control & prevention is responsible for professional information/materials collection, and office of information management and department of information technology service are responsible for resolving some

technical problems during the establishment of information platform. The information platform is available in Chinese and English version. The target populations are supposed to serve 2 major groups of people: professional workers and normal citizens. The effectiveness of information platform was evaluated by KAP investigations.

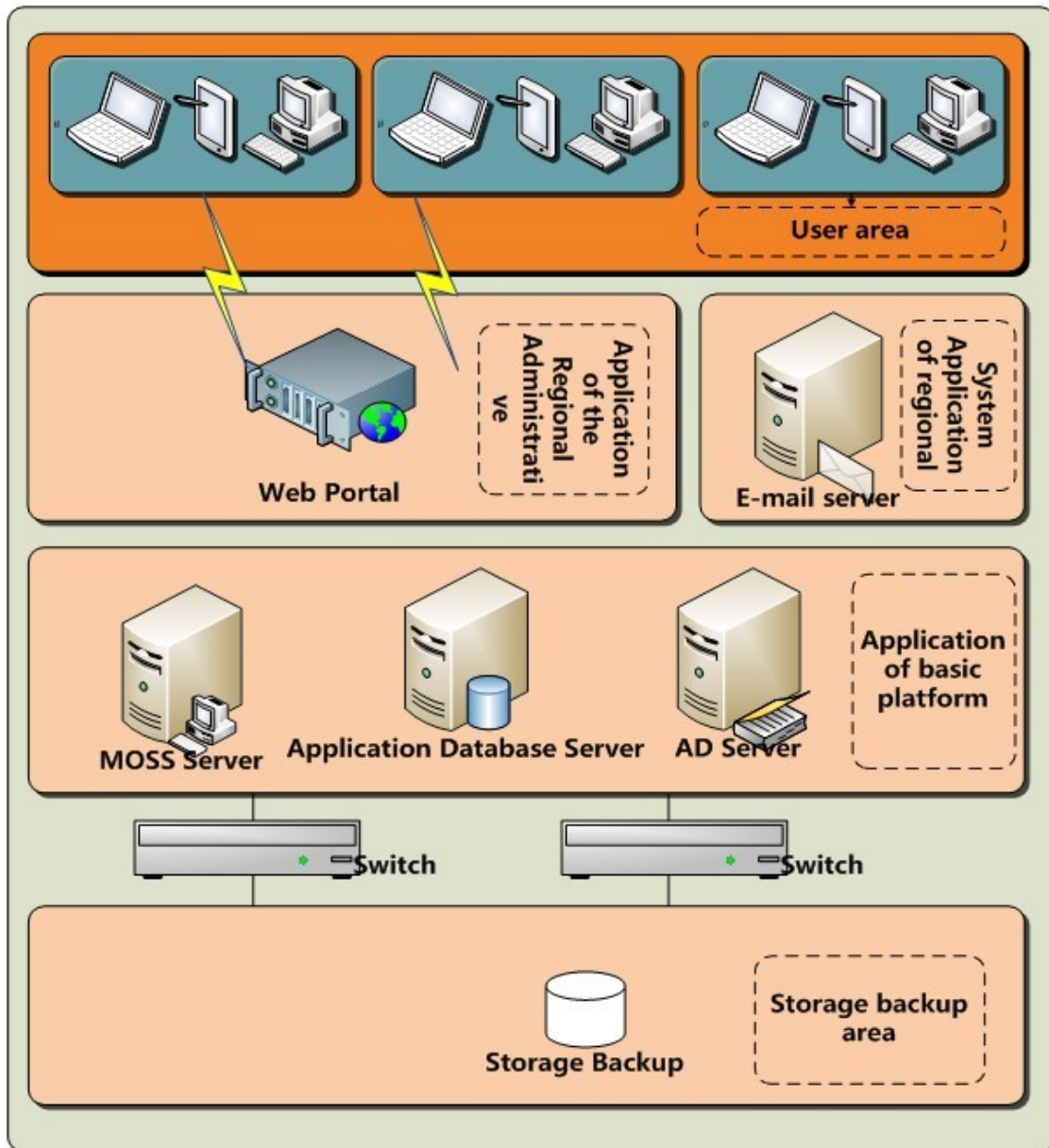
### 3. The invitation for bids and development of information platform

Through unified invitation for bids in an open and transparent way, among all competitive bidding, Shanghai Electronic Certificate Authority Center Co., Ltd was chosen to develop the information platform.

So far the development of information platform is finished and both Chinese version and English version are available now. The Chinese version website address is <http://www.aicme-apec.net> , and the English version website address is <http://en.aicme-apec.net>. The professional staff especially surveillance system users will use username and passwords to login and report the surveillance data, but it is not open to the public.

By the February 26, 2010, the information platform has around 13000 visits.





**Physical Structure**

4. Avian influenza KAP investigation and feedback form for the information platform

Initiated by Office of surveillance of communicable disease and emergency response & preparation, the KAP investigations are implemented before and after the establishment of information platform. The investigation was carried out in 3 districts (county).

The first run KAP investigation involved 149 community

participants in Pudong, Yangpu and Chongming districts (county), the average rate of avian influenza knowledge awareness was 71.47%, 42.69%, 51.75% respectively. The second run involved 152 community participants in Pudong, Yangpu and Chongming districts (county), the average rate of avian influenza knowledge awareness was 96.5%, 75.73%, 83.33% respectively. We can see that the information platform work well in health education for the community residents.

Meanwhile, the feedback form of information platform will be collected from the intervention community via website after the trial run period.

#### 5. Project influence on APEC economies

While facing community residents, the information platform also serves all APEC economies. Different APEC economies could translate and adjust it to their own versions which adapted to their own needs. Meanwhile, with the joint participation and involvement of various APEC economies, the utility and update frequency will be improved a lot and that's also the objective of this information platform.

#### VII. APEC forum

In order to strengthen the community management and engagement for Avian Influenza (AI) and share experience with APEC economies, international organizations and domestic related

institutions, the Ministry of Health of China and the APEC Secretariat, as the organizers, held “APEC Community management and community engagement for avian influenza control & prevention forum” at Sheraton Grand Pacific Hotel on February 25-26, 2010 in Shanghai. The forum was supported by Shanghai Municipal Health Bureau and Health Statistics and Information Center, MOH China. The co-organizer was Shanghai Municipal Center for Disease Control and Prevention.

Over 60 public health experts and professional staff joined the forum. The representatives are from APEC economies (Hong Kong, China; Korea; and Thailand), international organizations (WHO and US CDC), international corporation office and health statistics and information center of MOH, China, China Center for Disease Control & Prevention and domestic provincial CDCs (Guangdong, Zhejiang and Guangxi). Besides, representatives from Shanghai Health Bureau, Shanghai Center for Disease Control and Prevention and 18 Shanghai district CDCs also attend the forum.

There were 11 reports within two days forum. The representatives had discussions in depth on two topics: community ICT building and engagement in avian influenza control; APEC’s experience and regional joint control of avian influenza. From macro level to micro level, the reports introduced current problems we are

facing in terms of avian influenza control and prevention and pointed out the directions we are heading for in the future, especially the importance and necessity of community engagement. Director YU Hongjie of China CDC introduced the avian influenza situation in China and pinpointed the national strategy for avian influenza. He said it was very crucial to pay more attention to controlling early spread and improving public awareness and self-protection. Director YUAN Zheng'an of Shanghai CDC introduced the implementation of the project. He illustrated the conducive exploration in the field of avian influenza community control & prevention with the development of ICT building and shared experience in avian influenza information platform development and community engagement. CK Lee from WHO presented current global avian influenza situation and strategy for control & prevention from worldwide scope.

In the afternoon of Feb 25, the representatives listened to the reports from Director WANG Caiyou (Health Statistics and Information Center, MOH China), Mrs. Siriwan (Office of Disease Prevention and Control NO.7, Thailand), Director FU Yifei (Pudong new district CDC), Director LIN Jinyan (Guangdong Province CDC) and Japanese enterprises in Shanghai. All these reports highlighted the theme: community information system development and

community engagement for avian influenza control & prevention.

The delegates had discussion and reached the following consensus:

1. Community is essential links of avian influenza control & prevention and lots of works need to be done in community level. To strengthen health education for community residents and to actively instruct poultry farmers in rural areas to protect themselves are effective measures to decrease the exposure of avian influenza for the local residents. As for health education, it is needed to take various strategies according to the target population so as to achieve better effectiveness. Moreover, it is necessary to enhance surveillance, multi-sector communication and help local community well prepared for potential pandemic influenza.

2. With the emerging of all sorts of new media in recent years, people have more chance to acquire more knowledge and information. For public health workers, it deserves more consideration to think about how to integrate current resource and establish information platform for community and public in order to carry out health education in timely and effective manner. Some representatives suggested that mobile phone and SMS are also good options to implement health education. Moreover, modern video conference techniques could be used

for training and exercises to enhance the capability of avian influenza control and prevention in community level.

3. In term of challenges we are facing in the community level, it is well accepted that avian influenza control and prevention is not only the responsibility of health sectors but also the responsibility of all level of society. So far there is no mature multi-sector mechanism to fight against avian influenza and all government departments such as health, agriculture and commerce need to be involved. Meanwhile, extensive local residents' participation is also needed. Although the information platform provides possibility for local people to access avian influenza related knowledge, it is still long way to go in order to provide more helpful information to decrease exposure risks.

In the morning of February 26, Dr. MOK Chiu Yau (center for health protection, Hong Kong, China), Jeffrey McFarland (U.S. CDC) introduced experience of avian influenza control & prevention in Hong Kong and United States respectively. The two reports were followed by heat discussion on regional experience especially joint control experience. The delegates have reached the following consensus:

1. Due to the importance of surveillance in avian influenza control and prevention, it is crucial to strengthen surveillance

network. Currently there are epidemiological surveillance, laboratory surveillance and epizootic surveillance in most countries or regions. On this sound basis, it is still needed to optimize surveillance sites and to better utilize surveillance data in order to get better prepared. As for syndromic surveillance, it is necessary to combine syndromic surveillance with laboratory surveillance.

2. In order to set up effective control and prevention network, the key point is to strengthen corporation among different sectors/departments and regions. The experience in different countries or regions tells us that only with enhanced corporation, communication we can fight against pandemic influenza. Meanwhile we need to continue emergency capacity building. Planning, stockpiling, training and exercises are also key points.

With the communication and group discussion within these 2 days, the experts and delegates got to better understand the future direction for avian influenza control & prevention in community level and the forum achieved expected objectives.