JAPAN’S EFFORTS TO PROMOTE CAPACITY BUILDING IN THE FIELDS OF DISEASE SURVEILLANCE, DETECTION, DIAGNOSIS AND CONTAINMENT

Submitted by Japan

I. Introduction

1. The necessity of adequate steps to prevent the development of biological weapons and to prepare for protection against biological threats is apparent. Nevertheless, it is also vital to respond immediately to actual outbreaks and to take measures to minimize the damage of such occurrences. In this sense, it is extremely important to strengthen disease surveillance and diagnostic capacity, which are infectious disease countermeasures in the field of public health.

2. Infectious disease surveillance aims to (1) monitor trends in epidemic diseases, (2) detect outbreaks, (3) evaluate infectious diseases control measures, and (4) predict future trends and epidemics. Disease surveillance can thus also be an indispensable measure for decreasing biological threats.

3. In the 21st Century there have been a number of outbreaks of emerging infectious diseases – like SARS, highly pathogenic H5N1 avian influenza and its transmission to human, H1N1 pandemic influenza – that have or potentially could rapidly spread across borders. Through these outbreaks, we have recognized the importance of strengthening international cooperation in this field. The promptness and transparency of information sharing is the basis of surveillance. Japan appreciates that the international surveillance network of WHO (World
Health Organization) based on the International Health Regulation 2005 has been functioning sufficiently. Moreover, the international efforts since autumn 2005 to enhance surveillance, detection, diagnosis and containment capacity were of great benefit to the current H1N1 pandemic.

4. Japan, as a major donor country in this area, has been actively engaged in enhancing disease surveillance, detection, diagnosis and containment capabilities in developing countries.

II. Framework of infectious disease surveillance in Japan

Infectious disease surveillance in accordance with the Infectious Diseases Law

5. The Infectious Diseases Law, which combined the different laws related to infectious disease countermeasures, was enacted in 1998. This legislation aims to prevent the occurrence and spread of infectious diseases, and in accordance with this law each prefecture of Japan produces an Infectious Disease Weekly Report (IDWR) which documents trends in disease outbreaks. The law was modified in 2006 and the surveillance measures were strengthened.

6. The Infectious Disease Surveillance Center (IDSC), which was established under the National Institute of Infectious Disease (NIID), collects and analyzes information on outbreak conditions based on the IDWRs submitted by each prefecture. Consequently, by disclosing the contents of these reports, the IDSC contributes to the application of

Livestock disease surveillance in accordance with the Act on Domestic Animal Infectious Diseases Control

7. In addition to disease surveillance in humans, the Government of Japan has also enacted legislation under the Act on Domestic Animal Infectious Diseases Control to prevent the outbreak and spread of infectious diseases among livestock. In accordance with this law, each prefecture of Japan and the National Agriculture and Food Research Organization carry out disease surveillance for farm animals.

8. For the effective functioning of surveillance, the law not only stipulates severe penalties for farm producers that neglect their obligation to notify authorities of disease outbreaks, but also provides compensation for the disposal of livestock.

Other relevant cases of surveillance

9. The Tokyo Metropolitan Government, in cooperation with the Tokyo Fire Department, has put into action ambulance service surveillance, which allows immediate information collection and analysis of patients during transportation for the early detection of infectious disease.

III. Examples of Japan’s international cooperative efforts

10. Along with enhancing its own domestic surveillance framework, the Government of Japan has made the following efforts to actively promote disease surveillance in other countries.
Grant aid

11. “Project for Improvement of Safety Laboratory for the National Institute of Hygiene and Epidemiology (NIHE)”, Vietnam - Japan has provided NIHE with four BSL3 laboratories, two BSL2 laboratories, and four chemical laboratories, as well as examination equipment. This has expanded the functions of the institute and enabled it to handle and examine high-risk pathogens.

12. “Project for Improvement of Animal Health Laboratories for Diagnoses of Avian Influenza and Other Major Diseases of Animals”, Indonesia - Japan has granted assistance to The Disease Investigation Center (DIC) in order to renovate and extend avian influenza related facilities and examination equipment. This has improved the diagnosis capability of DIC, which enables the early detection of avian influenza and the prevention of its spread.

Technical cooperation

13. Technical cooperation projects are implemented by means of three types of cooperative tools, such as the dispatch of experts, the training in Japan and the supply of equipment. The following are ongoing projects:

(i) “Project for Capacity Development for NIHE to Control Emerging and Re-emerging Infectious Diseases”, Vietnam, March 2006 to September 2010 - Not only the provision of laboratories themselves but also technical assistance is being extended to NIHE by Japan to enable it to handle high-risk pathogens at BSL3 laboratories in accordance to international standards.

(ii) “Project for Strengthening Surveillance System for Avian Influenza”, Indonesia, October 2008 to October 2011 - Avian-human-influenza surveillance in South Sulawesi has been bolstered under this project through a comprehensive regional surveillance system for major infectious diseases.

(iii) “Regional Cooperation Project for Animal Diseases Control among Cambodia, Lao PDR, Malaysia, Myanmar, Thailand and Vietnam”, February 2008 to February 2011 - This project aims to construct a trans-boundary monitoring system for livestock diseases in the target region.

14. Acceptance of trainees:

(i) “Regional Workshop for Avian Influenza Control”, regional training - In collaboration with the Hokkaido University Research Center of Zoonosis Control, training workshops were held in September 2006 (20 participants from 12 countries), September 2007 (11 participants from 11 countries) and September 2008 (9 participants from 9 countries).

(ii) “Biosafety Control for Emerging Infectious Diseases for Asia”, regional training - In collaboration with the Division of Biosafety Control and Research of NIID, training under this program commenced in 2007, and the third training session is scheduled for November 2009. The participants are from Indonesia, Lao PDR, Myanmar, Mongolia and Thailand.
(iii) “Molecular Epidemiology of Avian Influenza Antibody”, country-focused training - In cooperation with NIID, a one-month training course was held in August 2008 in which two officials from the Ministry of Health of Indonesia participated.

15. South-South cooperation (Regional seminars):

(i) “Workshop on Policy and Strategy in Prevention, Control and Eradication of Avian Influenza”, and “the Diagnosis of Avian Influenza”, Malaysia - Training courses were co-hosted with the Department of Veterinary Services of the Ministry of Agriculture of Malaysia (ASEAN Poultry Diseases Research and Training Center) for mostly ASEAN countries in March 2007 and another in November 2008.

(ii) “JARCOM (JICA ASEAN Regional Cooperation Meeting) Seminar on Prevention of Emerging and Re-Emerging Infectious Diseases”, Vietnam - A training seminar was co-hosted with the Ministry of Health of Vietnam and NIHE in June 2007. The participants of this seminar were from Cambodia, Lao PDR and Myanmar.

(iii) “Capacity Building in the Prevention of Contagious Diseases”, Singapore - A training course was co-hosted with the Communicable Diseases Centre of Singapore in November 2007 and another in September 2008. The participants of this course were from Cambodia, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Thailand, East Timor, Vietnam, China and Brunei.

Voluntary contributions through international organizations

16. Assistance through the World Health Organization (WHO) - Through the WHO Regional Office for the Western Pacific, the Government of Japan has contributed to the establishment of an early warning system for emerging infectious diseases, the improvement of laboratory capacities and the development of national preparedness plans for the rapid response in eight Asian countries (Cambodia, China, Indonesia, Laos PDR, Mongolia, Papua New Guinea, Philippines and Vietnam).

17. Assistance through the World Organization for Animal Health (OIE) - The Government of Japan has made voluntary contributions to the OIE to implement its “Program for Strengthening Highly Pathogenic Avian Influenza Control in Asia” for the period of 2008-2012. The aim of the program is to maintain the system for the prompt reporting of highly pathogenic avian influenza, clarify transmission routes, and to strengthen the veterinary administrative organization in the Asia region.

Assistance by Government Fund

18. Japan-ASEAN Integration Fund (JAIF) - Through Japan-ASEAN Integration Fund which is disbursed to the ASEAN Secretariat, the Government of Japan has assisted the ASEAN Member States in stockpiling one million courses of anti-virus medicine for the purpose of early containment of pandemic influenza.
African Union (AU) Peace Fund - This fund is to assist the activities of the AU in promoting peace and stability in Africa, and a part of the funding from Japan has been used for the activities such as organizing conferences on infectious disease prevention.

Assistance through international joint research

19. Strategic Promotion of Science and Technology Cooperation in Asia and Africa (Promotion of international joint research) - The establishment of Influenza Research Center in Myanmar is an example of this program funded by Ministry of Education, Culture, Sports, Science and Technology.

20. Program of Founding Research Centers for Emerging and Re-emerging Infectious Diseases - Since 2005, overseas research centers have been established in countries of the Asian and African regions that have experienced outbreaks of emerging and re-emerging infectious diseases or potentially could experience outbreaks, in cooperation with local universities and research institutes. A domestic research system was also enhanced and basic research to promote the accumulation of fundamental knowledge about emerging and re-emerging infectious diseases as well as development of human resource is continuing intensively.

IV. Examples of available assistance schemes in the relevant fields

21. The following are some examples of assistance schemes that could be utilized in the areas related to the topics of this working paper, such as disease surveillance.

Bilateral Assistance

22. General grant projects - General grant projects involve mainly the implementation of infectious disease prevention in related fields. An example of these kinds of projects is the equipping of laboratories in Vietnam and Indonesia.

23. Grant Aid for Cooperation on Counter-terrorism and Security Enhancement - Assistance under this scheme, which commenced in 2006, primarily aims to improve counter-terrorism measures, in particular to provide equipment for strengthening police capabilities and airport and port security. There are no cases, however, of this grant being used for counter bio-terrorism. Additional to bilateral aid, this grant can be made available for programs implemented by international or regional organizations.

Technical Assistances

24. Development of human resources is an essential element for improving surveillance, and the Government of Japan provides technical assistance for the appropriate diagnosis and detection of infectious diseases through the dispatch of Japanese experts and the acceptance of trainees from developing countries.
Multilateral Assistance

25. Like the abovementioned contributions made to the WHO and OIE, Japan’s voluntary contributions are offered to programs aimed at infectious disease prevention initiatives undertaken by international organizations.

V. Japan’s position on promoting capacity-building in the relevant fields

Assistance corresponds to capacity

26. Although BSL3 laboratories are important facilities for disease surveillance, it is also necessary to be mindful of the importance of personnel training to develop technical experts that can safely handle pathogens. With a focus on the Asia region, Japan assisted the construction of laboratories and provided technical assistance for the strengthening of surveillance based on a thorough consideration of the capacity of the recipient country and implementation effects of such assistance.

Importance of self-help efforts

27. In order to support the improvement of surveillance, detection, diagnosis and containment capabilities, it is important to take into consideration each country’s priorities concerning public health policy, and to clarify their position within the overall picture of the health systems strengthening. Given the recent outbreaks of the new influenza, it is needless to say that measures against emerging infectious diseases is highly important. However, it is essential to make improvements in not only priority areas but also in areas that are expected to produce results based on each country’s burden of disease and the situation of its health system. This helps promote the betterment of the general health system, which also leads to the promotion of capacity building in the field of disease surveillance related to the BWC. To this end, Japan is providing assistance to those countries in a manner to encourage their ownership.