

**Pandemic Influenza Preparedness**  
**Action Plan**  
**of the Japanese Government**

**Inter-ministerial Avian Influenza Committee**  
**Revised October, 2007**

# **Countermeasures Promotion Based on Pandemic Influenza Preparedness Action Plan**

December 6, 2005  
Inter-ministerial Avian Influenza Committee

The Pandemic Influenza Preparedness Action Plan (hereinafter referred to as “Action Plan”) was formulated by the initiative of the Ministry of Health, Labour and Welfare, and approved at the Inter-ministerial Committee on November 14, 2005, to minimize health risks of people and prevent possible damage to social and economic functions.

On the following day, related Ministers met to confirm concerted efforts of the relevant agencies in promoting effective measures and preparedness based on the Action Plan.

In line with this Action Plan, the following measures are in progress:

- 1) Establishing prefectural preparedness scheme, including local headquarters and specific action plans (local governments);
- 2) Formulating guidelines to ensure prompt and effective implementation of related measures (Ministry of Health, Labour and Welfare and relevant government bodies);
- 3) At major international airports, implementing sterilization of shoe soles of all immigrants from countries where avian influenza infection occurs, with cooperation of quarantines of the Ministry of Health, Labour and Welfare (Ministry of Agriculture, Forestry and Fisheries);
- 4) Selecting emergency research projects for the production of pandemic influenza vaccines funded by Expenditures for Promoting Science and Technology (Council for Science and Technology Policy); and
- 5) Promoting international cooperation in the establishment and allocation of stockpiles of oseltamivir and other supplies; capacity building of researchers, health care workers and veterinary hygienists; support for the development of influenza vaccines; and other related issues (Ministry of Foreign Affairs; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries).

The relevant agencies shall collaborate and take appropriate measures, so that the whole government can promote and implement seamless and effective preparedness scheme, funded by national budgets for 2005, and 2006 which is under compilation at present.

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\* Expression of phases in the present action plan:  
To simplify description, 'A' represents 'No outbreak in Japan', and 'B' does 'Outbreak in Japan'.  
(e.g. 'Phase 2A' represents 'No outbreak in Japan' in WHO Phase 2.

# **Pandemic Influenza Preparedness** **Action Plan**

**<General Statement>**

## Background

A new virus whose surface antigen is totally different from those causing epidemics every year has caused the onsets of new influenza at 10 - 40 year intervals. Since most people have no immunity to a new virus, it expands to global pandemic, causing huge health hazard accompanied by social effects.

In the 20th century, the outbreak of Spanish flu in 1918 was the most major one, causing estimated 40 million deaths around the world including 390 thousands in Japan. Other major outbreaks include Asian flu in 1957 and Hong Kong flu in 1968. The records suggest various socioeconomic turmoil such as the decline of health care services.

Highly pathogenic avian influenza (A/H5N1) epidemics, some associated with fatal human cases have recently occurred mainly in South-Eastern Asia (62 deaths among 122 human cases between December 2003 to October 2005) and very recently in Europe. Thus, the epidemic is expanding, and there is increasing risk of emergence of a new pathogenic avian influenza virus that has acquired capacity of human-human spread.

Global efforts against new influenza include influenza pandemic measures conducted by World Health Organization (WHO) in coordination with 4 WHO influenza collaborating centers around the world (Japan, US, UK, and Australia). In May 2005, WHO published 'WHO Global Influenza Preparedness Plan. Member states have been developing action plans to protect their own citizens based on the Plan.

On the other hand, in Japan, 'Ministry of Health, Labour and Welfare established a Review Subcommittee on Measures against New Influenza' in October 2003. The subcommittee compiled 'Report of measures against new influenza' in August 2004. After the commencement of the discussion, in response to the intimidating situation caused by the onsets of highly pathogenic avian influenza (A/H5N1) (Yamaguchi, Oita, and Kyoto), the government developed 'Emergency comprehensive measures against avian influenza' in March 2004, while revisions of the Law for prevention of infectious diseases of domestic animals (Law No.166, 1951) including promotion of early reports and compensation for farmers in areas of movement restriction were implemented. In November 2004, 'Highly pathogenic avian influenza epidemic prevention manual' (Notice from Director-General of Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries in September 2003) was reviewed to develop guidelines for prevention of specific infectious diseases of domestic animals concerning highly pathogenic avian influenza based on the Law for prevention of infectious diseases of domestic animals.

Moreover, based on proposals suggested in 'Report for measures against new influenza', 'Basic guidelines for comprehensive promotion of prevention of infectious diseases' (Announcement No.115 from Ministry of Health and Welfare in 1999) and 'Guidelines for the prevention of specified infectious diseases related to influenza' (Announcement No. 247 from Ministry of Health and Welfare in 1999) established under the Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections (Law No.114 in 1998, hereinafter referred to as 'Infectious Diseases Law') etc. were revised in April 2005 to promote the measures by incorporating provisions concerning the development of vaccines and stockpile of Antiviral drugs etc.

Thus, measures have been taken step by step in Japan. In response to increasing risk of emergence of a new influenza virus, however, it was determined to develop 'Pandemic Influenza Preparedness Action Plan' in compliance with 'WHO Global Influenza Preparedness Plan' to take prompt and reliable measures.

### **Estimation of epidemic scale**

Since epidemic scale of new influenza depends on pathogenicity and infectivity of a new influenza virus, it is difficult to estimate epidemic scale accurately at the present time. The present Plan assumed it based on a health hazard example projected by the Review subcommittee on measures against new influenza.

Estimation model of US Centers for Disease Control and Prevention (hereinafter referred to as US CDC) (FluAid 2.0 by Meltzer et al. July 2000) was used for the assessment of new influenza epidemics/pandemics in Japan. It was estimated that, if 25% of the Japanese population are infected by the virus, 13 to 25 million (median approx. 17 million) will visit medical facilities.

Using the upper limit, 25 million, the numbers of moderate and severe cases of new influenza were estimated, based on the classification of Asian flu etc. as moderate (fatality: 0.53%), and Spanish flu as severe (fatality: 2%). Based on the fatality for moderate and severe cases, the upper limits of inpatients and deaths were estimated 530 thousands and 170 thousands respectively for moderate cases, while 2 million and 640 thousands for severe cases. It should be noted that effects (effectiveness) of factors such as intervention with new influenza vaccines or Antiviral drugs and sanitation conditions in Japan are not taken into consideration in these estimates.

Assuming that 25% of the whole population are infected and epidemic lasts 8 weeks, the maximum daily number of inpatients is estimated 101 thousands (5 weeks from the outbreak) for moderate cases. The number is speculated to increase for severe cases.



## Fundamental principles for countermeasures

- Basic policy

It is difficult to prospect accurately when new influenza occurs, and it is impossible to prevent the emergence of a new virus. In this era of dynamic global movement of people and goods, invasion of new influenza seems to be unavoidable once it occurs somewhere in the world.

It is considered that the onset of new influenza can be delayed by taking appropriate preventive measures against the spread of avian influenza.

Thus, the purpose of measures against new influenza is to avoid socioeconomic collapse by preventing the onset of new influenza as far as possible through promoting collaboration with domestic animal sanitation divisions, by containing it at the early stage by public health intervention, as well as by minimizing the spread of infection and health hazard in pandemic period.

For the purpose, the national action plan should be established for each WHO phase concerning the outbreak of new influenza in advance, based on situations expected at the time of outbreak and epidemic. In addition, the action plan should be disseminated to the relevant parties in advance to enable prompt and appropriate behavior. Equipment and materials required for measures in each phase should be prepared in implementing preparedness plans developed in advance. Since the present action plan is one for measures against new influenza for national government, it is essential for prefectures to take necessary measures against new influenza depending on local situation, including the formulation of local action plan specifying preparedness scheme and responsibilities, taking into account the national action plan.

The present action plan shows the concrete policies of the government, and specific responses shall be taken based on various guidelines, manuals etc.

Since pandemic of new influenza is speculated to deviate from the estimation, the action plan, guidelines, manuals etc. shall be revised as necessary.

- **Scheme to promote measures**

Efforts by the government based on roles of relevant government bodies in promoting measures against new influenza are described below:

<b>1. Efforts by the government</b>
<b>A) Government</b>
<p>Joint efforts by the whole government bodies shall be made through the framework of ‘Inter-ministerial Avian Influenza Committee’ to take measures against new influenza.</p> <p>The individual government bodies shall discuss measures in case of the outbreak of new influenza in advance to promote comprehensive measures depending on epidemic situations.</p> <p>In the event of pandemic influenza, relevant ministers shall immediately put up the Headquarters for Pandemic Influenza Countermeasures, and tackle the event concertedly.</p> <p>The Headquarters for Pandemic Influenza Countermeasures shall organize the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”) to reinforce the above response.</p>
<b>B) Ministry of Health, Labour and Welfare</b>
<p>Headquarters for Pandemic Influenza Countermeasures consisting of relevant divisions shall be established to develop concrete action plans for measures against new influenza as well as to promote comprehensive measures such as understanding of the outbreak trend of new influenza, prevention and treatment depending on epidemic situations.</p> <p>In addition, ‘Expert Committee on New Influenza’ consisting of experts in 5 areas ‘surveillance’, ‘prevention and containment’, ‘medical response’, ‘risk communication’ and ‘international response’ shall be organized to enhance measures.</p>
<b>2. Coordination by local governments</b>
<p>In order to promote preparatory measures against new influenza and to take measures in pandemic, provide technical advice, depending on local conditions, on necessary measures such as establishment of headquarters for Pandemic Influenza countermeasures and development of specific action plans at prefecture levels.</p>
<b>3. Coordination by relevant organizations</b>
<p>In order to minimize the spread of infection and health hazard in pandemic, as well as to avoid socioeconomic collapse, seek coordination from relevant organizations (health care workers, medical institutions, social welfare facilities, public transportation, mass media, corporations etc.).</p>
<b>4. Coordination from citizens etc.</b>
<p>Citizens shall have correct knowledge on new influenza etc. and pay attentions to prevent it. Also, full attention should be paid to protect human rights of patients with new influenza.</p>

- **Overview and purposes of phases of the Action Plan**

Since measures against new influenza depend on situations of the outbreak etc., response policies should be established based on assumptions in peacetime in order to take swift and appropriate responses according to the situations.

The above-mentioned WHO Global Influenza Preparedness Plan describes responses for 6 phases from the inter-pandemic period to the pandemic. Also in Japan, it was determined to develop pandemic action plans both for ‘No outbreak in Japan (add “A” to the phase)’ and ‘Outbreak in Japan (add “B” to the phase)’ by phase defined by WHO.

Phases 4 to 6 are classified in accordance with the expansion of infection in Japan.

Chief of Headquarters for Pandemic Influenza Countermeasures shall determine the stage in Japan in conjunction with rise and reduction declared by WHO. For detailed responses, the action plan for each stage in Japan shall be implemented. As of the date of revision (October 2007), WHO designated current situation as phase 3. Accordingly, for the time being, responses for phase 3A (phase 3, No outbreak in Japan) and above described in the present action plan shall be taken.

### **WHO Phase 1**

**Definition:**

No new influenza virus subtypes have been detected in humans. Although an influenza virus subtype that has caused human infection or disease presents in animals is present, the risk of human infection or disease is considered to be low.

**Objectives :**

Although no influenza virus subtypes that may cause human infection or disease present, strengthen influenza pandemic preparedness at national level.

### **WHO Phase 2**

**Definition :**

No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

**Objectives :**

Since influenza virus subtypes that are likely to cause human infection or disease present in animals, minimize the risk of transmission to humans. Establish the system to ensure prompt detection and report of such transmission.

### WHO Phase 3

#### Definition :

Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instance of spread to a close contact (such as family members).

#### Objectives :

Taking existing human infection into consideration, ensure rapid characterization of the new virus subtype, and early detection, notification and response to additional cases.

### WHO Phase 4

#### Definition :

Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

#### Objectives :

Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccines development.

### WHO Phase 5

#### Definition :

Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

#### Objectives :

Make maximum efforts to contain or delay spread, to possibly avert a pandemic, and to gain time to implement pandemic response measures.

## WHO Phase 6

### Definition :

Pandemic phase: Increased and sustained transmission in general population.

Remission period: An inter-pandemic period followed by the next pandemic (second wave).

Second wave: Next pandemic period

### Objectives :

Minimize the impact of the pandemic to maintain social function. During the remission period, assessment and review of the past measures in preparation for the next pandemic (second wave).

## WHO Post-pandemic Period (Recovery Phase)

### Definition :

A return to the inter-pandemic period

### Objectives :

De-escalation of the measures.

Evaluate the past measures and review the action plan, as well as implement measures in preparation for the next epidemic.

- **Major 5 categories of the Action Plan**

In the Japanese Action Plan, the objectives and actions have been developed for the following 5 action categories: (1) planning and coordination; (2) surveillance; (3) prevention and containment; (4) medical response; and (5) risk communication, based on comprehensive objectives for member states suggested by WHO. Details in each category are described below.

### **(1) Planning and coordination**

The objectives of measures against new influenza is minimizing health hazard in pandemic as well as risk control to maintain social activities by preventing collapse of social functions. In order to ensure rapid and appropriate risk control, the action plan for each phase should be developed in advance and communicated broadly to the relevant parties.

Since it is said that new influenza is caused by mutation following re-assembly of an avian influenza virus and human influenza virus, close collaboration between public health divisions and domestic animal health divisions is essential in particular, both at national and prefectural levels. Furthermore, joint efforts by the whole government bodies are required to maintain social functions in pandemic.

For the purpose, joint efforts should be promoted by enhancing recognition sharing by the relevant government bodies and securing their coordination through the framework of 'Inter-ministerial Avian Influenza Committee'.

For Ministry of Health, Labour and Welfare, Headquarters for Pandemic Influenza Countermeasures chaired by Minister of Health, Labour and Welfare shall take necessary measures to promote the full implementation of the Action Plan depending on phases.

In addition, exchange of information on the outbreak situations of highly pathogenic avian influenza etc. shall be enhanced and expert teams shall be organized and deployed in response to requests from international agencies or nations where influenza is observed in order to strengthen international cooperation.

In the event of pandemic influenza, relevant ministers shall immediately put up the Headquarters for Pandemic Influenza Countermeasures, and tackle the event concertedly.

## **(2) Surveillance**

It is important to establish a surveillance system to obtain domestic and foreign information promptly in order to establish a national system in preparation for the new influenza epidemic enabling early detection of the outbreak.

In Japan, continuous monitoring shall be maintained by implementing trend survey on the outbreak of infectious diseases, pathogen surveillance to study virus subtypes, surveillance on drug-resistant influenza strains, surveillance of highly pathogenic avian influenza in poultry flocks, and pathogen surveillance of influenza virus in swine. New virus strains shall be continuously studied and stored, to ensure preparedness for immediate production of vaccines. According to the advancement of WHO phases, the surveillance system shall be enhanced by implementing cluster surveillance for early detection of cluster(s) in which infection occurs; hospitalized pneumonic syndrome surveillance for compilation of serious cases and early detection of outbreak, prompt identification of side reactions to vaccination on a real time basis; and other necessary surveillances including expanding institutions covered by support systems to research suspected cases and to identify death cases immediately.

For foreign status, necessary information shall be obtained through Flu Net, GOARN, the international network on influenza surveillance operated mainly by WHO and the OIE Early Warning System.

### **(3) Prevention and containment**

Measures for prevention of the outbreak of new influenza and prevention and containment of the spread are essential to minimize health hazard as well as to avoid socioeconomic collapse. For the purpose, early measures commenced at the time of the outbreak of highly pathogenic avian influenza that is likely to mutate into new influenza are required.

Accordingly, measures to ensure prevention of the outbreak of highly pathogenic avian influenza include termination of import of birds from nations or regions where infection occurs, confirmation of sanitary certificates issued by exporting countries for exported birds, alert to travelers to nations and regions where highly pathogenic avian influenza occurs, and sanitary control at farm levels (such as disinfection of humans and vehicles and measures to prevent invasion of wild birds). In addition, containment measures to localize the spread (including disposal of affected animals and movement restriction of poultry flocks in the surrounding farms) if highly pathogenic avian influenza occurs in Japan.

In order to prevent new influenza, preventive measures at a personal level such as implementing basic preventive measures against infectious diseases including gargling, washing hands and wearing masks, and avoiding contact with infected patients should be ensured, while travel information to the affected regions will be issued and strengthening of inspection for detection of infection should be conducted when new influenza is observed abroad.

Furthermore, in order to prevent and contain the spread, quarantine of patients, survey on those who have had contact with patients, and administration of Antiviral drugs to such persons shall be conducted as needed, while restraint of social activities of citizens (e.g. order of self-restraint of meetings or gatherings, and recommendation of absence and medical check to those with new influenza like symptoms) shall be implemented as necessary.

Although safe and effective vaccines is expected to have enormous effects on prevention of human infection, a new influenza vaccines has not yet been available clinically. Therefore, the relevant parties should share the common target of developing and obtaining manufacturing and marketing approval of pre-pandemic vaccines, and take necessary procedures in preparation for the commencement of manufacturing immediately after the outbreak of new influenza.



#### **(4) Medical response**

Based on the estimated maximum daily inpatients of 101 thousands in moderate pandemic of new influenza, and expected more outpatients, preparedness plans should be developed to provide effective and efficient medical care with limited medical resources (such as the number of beds). Furthermore, since more inpatients are expected when pathogenicity of new influenza is severe, medical system in response to such a situation should be considered in advance.

Diagnosis and treatment of new influenza shall be established and disseminated to medical institutions for ensuring early treatment. At the same time, measures to prevent secondary infection shall be taken, such as avoidance of contact by patients with other diseases with suspected new influenza patients, health control of health care workers, and preventive measures against in-hospital infection by preventive administration of Antiviral drugs or vaccination to health care workers having had contact with patient.

Since hospitalization is effective for treatment and containment in the early stage of new influenza in Japan (Phase 4B and 5B), suspected new influenza patients meeting with case standards shall be hospitalized in medical institutions designated for infectious diseases, and plans to use negative pressure beds such as beds for infectious diseases and pneumonia shall be developed.

Since the number of patients is expected to increase in phase 6B (Outbreak in Japan), plans for utilization of medical institutions that are not designated for infectious diseases, or other accommodation facilities as a facility to accept patients should be formulated.

Since Antiviral drugs should be stockpiled in order to maintain social functions, and they are used also for regular influenza, the critical shortage of the supply possibly occurs in new influenza pandemic if it is not used correctly. The government should develop stockpile plans and procedures for correct use of the agent (e.g. the administration priority of Antiviral drugs) to make the relevant parties understand.

## **(5) Risk communication**

Although no outbreak of new influenza is reported now, information of the outbreak of avian influenza or human infection of avian influenza is one of important information suggesting the outbreak of new influenza. A system should be established to collect such information provided by nations where infection occurs or international organizations (WHO, OIE, FAO etc.) and to share it by the relevant parties.

While collected information should be provided to general population from the viewpoint of prevention of infection and spread of new influenza, it should be treated carefully from the viewpoint of prevention of panic. Ministry of Health, Labour and Welfare designated a spokesperson in order to integrate information source, and to publish information regularly on domestic and foreign situation of the outbreak and responses according to the epidemic phases. Since media through which information is provided and the details are considered to vary, multiple media shall be selected to provide understandable information, using risk communication methods.

**Pandemic Influenza Preparedness**  
**Action Plan**

**<Specific Statement>**

**Phase 1**

(Although no new influenza subtypes have been detected in humans, an influenza virus subtype causing human infection has been detected in animals)

**Planning and coordination**

**[Inter-ministerial coordination]**

- Enhance recognition sharing among the relevant government bodies through the framework of 'Inter-ministerial Avian Influenza Committee' (relevant government bodies)

**[Information collection]**

- Collect domestic and foreign information (Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, Ministry of Foreign Affairs, and Ministry of Education, Culture, Sports, Science and Technology)
  - Sources of information
    - ✓ World Health Organization (WHO), Office International des Epizooties (OIE), and UN Food and Agriculture Organization (FAO)
    - ✓ National Institute of Infectious Diseases: WHO Influenza Collaboration Center
    - ✓ National Institute of Animal Health
    - ✓ Hokkaido University: OIE Reference Laboratory
    - ✓ Government establishments abroad
- Develop and review various guidelines (Ministry of Health, Labour and Welfare, and government bodies)

**[International collaboration (cooperation and harmonization)]**

- Acceptance of trainees, dispatch of experts, and field training to foster researchers, health care workers, animal health experts, and health officials abroad. (Ministry of Foreign Affairs, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and relevant government bodies)

**Surveillance**

- For annual human influenza epidemic (type 5 infectious disease), correctly understand the weekly outbreak trend in about 5000 medical institutions (institutions designated for notification). In 500 institutions, 10% of them implement pathogen surveillance on a virus subtype etc. (Ministry of Health, Labour and Welfare)
- Grasp the number of influenza related deaths in the influenza epidemic period (Ministry of Health, Labour and Welfare)
- Implement influenza surveillance among poultry, swine etc. (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Investigate whether birds migrating to Japan possess highly pathogenic influenza virus or not (Ministry of the Environment)
- Cooperate for strengthening of surveillance system of individual nations (Ministry of Foreign Affairs, and relevant government bodies)

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**Prevention and containment**

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**[Preventive measures against highly pathogenic avian influenza in poultry]**

- Discuss preventive measures in the poultry diseases subcommittee, as well as develop guidelines for prevention of specific infectious diseases of domestic animals concerning highly pathogenic avian influenza and take measures (Ministry of Agriculture, Forestry and Fisheries)
- Implement practices for infectious disease prevention to take prompt measures in emergency in coordination with prefectures and relevant organizations (Ministry of Agriculture, Forestry, and Fisheries)
- Establish the scheme to understand the situation of production, distribution, storing etc. of resources required as preventive measures (e.g. influenza rapid diagnosis kit and mask) and sanitary resources for which demand among general population is expected to increase rapidly (e.g. sterilization agent and mask) (Ministry of Agriculture, Forestry, and Fisheries and Ministry of Health, Labour and Welfare)
- Reserve vaccines for urgent injection to poultry in preparation for difficulties in implementing prompt measures to prevent the spread in rapid expansion of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)
- Cooperate for containment measures in nations where infection occurs (Ministry of Foreign Affairs and relevant government bodies)

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**Antiviral drugs**

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**[Collection, organization and analysis of scientific findings]**

- Conduct studies on the effectiveness of existing Antiviral drugs, and drug tolerance of viruses (Ministry of Health, Labour and Welfare)
- Evaluate the safety of existing anti-influenza virus (Ministry of Health, Labour and Welfare)
- Ensure medical institutions to understand correct use of influenza rapid diagnosis kit and Antiviral drugs (Ministry of Health, Labour and Welfare)

**[Securing the distribution system in pandemic]**

- Confirm the distribution situation of Antiviral drugs, and establish a system to ensure effective supply (Ministry of Health, Labour and Welfare)

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## **Vaccines**

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### **[Promotion of technical development]**

- Promote the development of vaccines effective to new influenza and fundamental technologies to develop vaccines (Ministry of Health, Labour and Welfare)
- Provide information on vaccination for influenza epidemic in winter season of every year (Ministry of Health, Labour and Welfare)
- Review the possibility of the development and introduction of necessary technology concerning new methods for rapid administration in increasing demand of vaccination (Ministry of Health, Labour and Welfare)
- Establish a system to create a strain for manufacturing vaccines and supply it to manufacturers through coordination among the government, national research institutes, and manufacturers (Ministry of Health, Labour and Welfare)
- Promote the development of technologies to increase the number of vaccinated subjects such as agent for which higher effectiveness is expected with the reduced amount of vaccines antigens as well as to promote productivity by developing proliferative virus (Ministry of Health, Labour and Welfare)

### **[Development of basic principles regarding a vaccination system]**

- Establish a framework for cooperation and coordination between the government bodies and local governments, and prepare for vaccination (Ministry of Health, Labour and Welfare)

### **[Vaccination system] (Ministry of Health, Labour and Welfare)**

- Development of basic plans for vaccination (structure of operating organizations, vaccination sites (working places, residential areas etc.), estimation of the number of necessary facilities and staff, and plans for distribution, storing and security of vaccines)
- Discussion on standards for selection of medical institutions and facilities for vaccination
- Discussion on establishment of personnel registration system by job category and local area
- Confirmation of group vaccination related equipment, understanding of manufacturing conditions, and discussion on the possibility of increased productivity
- Discussion on recovery, storing and disposal of used vaccination devices, and on methods for evaluation and strengthening of current capabilities

### **[International collaboration (cooperation and harmonization)]**

- Promote information exchange with nations where animal influenza epidemic is observed (Ministry of Health, Labour and Welfare)
- Cooperate in developing common indicators for monitoring of the effectiveness and safety of vaccines through WHO etc. (Ministry of Health, Labour and Welfare)

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### Medical response

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- Request prefectures to organize medical institutions designated for infectious diseases (Ministry of Health, Labour and Welfare)

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### Risk communication

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- Organize media and organizations available for information provision among domestic networks etc. (Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)
  - Public service announcement
  - Website and media operated by relevant organizations
  - Affiliated organizations: Medical associations, academic societies, veterinary medical association etc.
- Share domestic and foreign information ((Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Foreign Affairs)
  - Sources of information
    - ✓ WHO, OIE, FAO, and other international organizations
    - ✓ Government establishments abroad

**Phase 2A**

(Although no new influenza virus subtypes have been detected in humans, a virus subtype posing a substantial risk of human infection has been detected in animals)

--- Not outbreak in Japan--

\*Continue and strengthen measures in phase 1

**Planning and coordination**

**[Inter-ministerial coordination]**

- Enhance recognition sharing among the relevant government bodies through the framework of ‘Inter-ministerial Avian Influenza Committee’ (relevant government bodies)

**[Information collection] (WHO/OIE/FAO, bilateral)**

- Cooperate in analysis and collection of information on highly pathogenic avian influenza in nations or regions where infection occurs (OIE reference laboratory etc.)(Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

**[Promotion of research activities]**

- Expand research activities including international collaboration (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)

**[International collaboration (cooperation and harmonization)]**

- Acceptance of trainees, dispatch of experts, and field training to foster researchers, health care workers, animal health experts, and health officials abroad. (Ministry of Foreign Affairs, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and relevant government bodies)

**Surveillance**

- Implement influenza surveillance among poultry, swine etc. (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Ensure early detection and report of abnormal poultry from poultry farmers etc. (Ministry of Agriculture, Forestry and Fisheries)
- Understand the whole number of human infection of highly pathogenic avian influenza (type 4 infectious disease) by reports from doctors (Ministry of Health, Labour and Welfare)
- Investigate whether birds migrating to Japan and wild birds possess highly pathogenic influenza virus or not (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)



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**Prevention and containment**

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**[Measures for immigration]**

- Alert overseas travelers to the outbreak of highly pathogenic avian influenza abroad and prevention of infection (self-restraint from entry to chicken farms or markets that sell live birds) (Ministry of Health, Labour and Welfare)
- Implement sterilization of shoe soles of returnees who visited chicken farms in nations or regions where infection occurs, and disinfection of vehicles entering from neighboring countries where infection occurs (Ministry of Agriculture, Forestry and Fisheries)
- Alert the prevention of infection and instruct the responses when infection is suspected to the Japanese nationals residing in countries experiencing highly pathogenic avian influenza infection (Ministry of Foreign Affairs)

**[Preventive measures against highly pathogenic avian influenza in poultry]**

- Ensure sanitary control such as disinfection of humans and vehicles at farm levels and prevention of invasion of wild birds to prevent the outbreak among domestic poultry flocks (Ministry of Agriculture, Forestry and Fisheries)
- Implement practices for infectious disease prevention to take prompt measures in emergency in coordination with prefectures and relevant organizations (Ministry of Agriculture, Forestry, and Fisheries)
- Reserve vaccines for urgent injection to poultry in preparation for difficulties in implementing prompt measures to prevent the spread in rapid expansion of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)
- Ensure avoidance of contact with wild birds among those who raise poultry including schools and homes (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)

**[Measures against imported animals]**

- Terminate import of living birds and poultry meat etc. from nations or regions where highly pathogenic avian influenza infection occurs (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Confirm proofs showing no infection with highly pathogenic avian influenza etc. by sanitary certificates issued by exporting countries for birds and poultry meat imported from nations and regions qualified for export, and prevent invasion of affected poultry and poultry meat by implementing inspection (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

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## **Antiviral drugs**

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### **[Collection, organization and analysis of scientific findings]**

- Collect information from WHO, international organizations, relevant countries, academic journals etc. on the effectiveness of Antiviral drugs circulating in Japan and drug tolerance to Antiviral drugs for existing subtypes (Ministry of Health, Labour and Welfare)

### **[Securing Antiviral drugs]**

- Request prefectures to secure a treatment system with Antiviral drugs when infection is suspected in personnel engaging in infectious disease prevention (Ministry of Health, Labour and Welfare)
- Estimate the amount of Antiviral drugs required in pandemic in Japan (Ministry of Health, Labour and Welfare)

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## **Vaccines**

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### **[Development and manufacturing system]**

- Discuss manufacturing plans of pre-pandemic vaccines with manufacturers (Ministry of Health, Labour and Welfare)

### **[Manufacturing system]**

- Create a candidate virus strain for production of vaccines by National Institute of Infectious Diseases and manufacturers (Ministry of Health, Labour and Welfare)

### **[International collaboration (cooperation and harmonization)]**

- Consider supply of virus samples to international organizations (WHO, OIE etc) and nations that wish (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)

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## **Medical response**

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- Request prefectures to establish an inspection system to implement PCR tests for new influenza in local health institutes (Ministry of Health, Labour and Welfare)

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## **Risk communication**

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- Establish an emergency system to provide information to prefectures (email system and health risk control system)(including periodical assessment of system performance)(Ministry of Health, Labour and Welfare)
- Provide information on the outbreak situation abroad to the Japanese nationals residing abroad and overseas travelers (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)
- Provide information to general public on prevention of infection with highly pathogenic avian influenza etc. through media including the website (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

**Phase 2B**

(Although no new influenza virus subtypes have been detected in humans, a virus subtype posing a substantial risk of human infection has been detected in animals)

--- Outbreak in Japan---

\*Continue and strengthen measures in phase 1

**Planning and coordination**

**[Inter-ministerial coordination]**

- Enhance recognition sharing among the relevant government bodies through the framework of ‘Inter-ministerial Avian Influenza Committee’ (relevant government bodies)
- Strengthen the collaboration between Ministry of Health, Labour and Welfare (Public health divisions) and Ministry of Agriculture, Forestry and Fisheries (Domestic animal health division) in particular (Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)

**[Responses to the outbreak]**

- Notify OIE of the outbreak among domestic poultry flocks (Ministry of Agriculture, Forestry and Fisheries)
- Evaluate and review the system for prevention of infection by a Poultry diseases subcommittee and investigation team on infection routes of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)
- Acceptance of trainees, dispatch of experts, and field training to foster researchers, health care workers, animal health experts, and health officials abroad. (Ministry of Foreign Affairs, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and relevant government bodies)

**[Promotion of research activities]**

- Expand research activities including international collaboration (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)

**Surveillance**

- Conduct influenza surveillance among poultry, swine etc, based on affected cases (conduct surveillance in all poultry farms taking attenuated virus strain into consideration)(Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Ensure early detection and report of abnormal poultry from poultry farmers etc. (Ministry of Agriculture, Forestry and Fisheries)
- Understand the whole number of human infection of highly pathogenic avian influenza (type 4 infectious disease) by reports from doctors (Ministry of Health, Labour and Welfare)
- Investigate whether birds migrating to Japan and wild birds possess highly pathogenic influenza virus or not (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)

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**Prevention and containment**

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**[Preventive measures against highly pathogenic avian influenza in poultry]**

- Prevent the spread of infection by suggesting prefectures on preventive measures for infected poultry (including disposal of affected animals, movement restriction of poultry flocks in surrounding farms etc.) (Ministry of Agriculture, Forestry and Fisheries)
- Support and request prefectures on protection of farm employees and those engaging in infectious disease prevention from infection (such as virological tests, wearing masks and protective clothes, vaccination, and preventive administration of Antiviral drugs) as necessary (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Support resume of operations of affected farmers by mutual funds and financing facilities in addition to allowance provided to affected animals based on the Law for prevention of domestic animal infectious diseases (Ministry of Agriculture, Forestry and Fisheries)
- Establish an investigation team on infection routes immediately after the outbreak to investigate a source and route of infection (Ministry of Agriculture, Forestry and Fisheries)
- Conduct vigilance by prefectural police in surrounding areas in accordance with measures for infectious disease prevention as necessary (National Police Agency)
- Implement assistance activities by Self-Defense Forces in response to requests from prefectures if it is recognized that urgent responses are necessary and it is difficult for prefecture to respond in cases such as disposal of large amounts of affected birds. (Ministry of Defense)
- Use reserved vaccines for poultry, as necessary, in difficulties in implementing prompt measures to prevent the spread in rapid expansion of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)

**[Measures against imported animals]**

- Terminate import of living birds and poultry meat etc. from nations or regions where highly pathogenic avian influenza infection occurs (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Confirm proofs showing no infection with highly pathogenic avian influenza etc. by sanitary certificates issued by exporting countries for birds and poultry meat imported from nations and regions qualified for export, and prevent invasion of affected poultry and poultry meat by implementing inspection (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

**[Others]**

- Ensure avoidance of contact with wild birds among those who raise poultry including schools and homes (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, and Ministry of Agriculture, Forestry and Fisheries)

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### **Antiviral drugs**

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- Provide advices on health control of employees of farms where highly pathogenic avian influenza occurs and those engaging in disposal of affected poultry etc., and on the necessity of preventive administration of Antiviral drugs as necessary (Ministry of Health, Labour and Welfare)

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### **Vaccines**

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#### **[Development and manufacturing system]**

- Discuss manufacturing plans of pre-pandemic vaccines with manufacturers (Ministry of Health, Labour and Welfare)

#### **[Manufacturing system]**

- Prepare a candidate virus strain for production of vaccines by National Institute of Infectious Diseases and manufacturers (Ministry of Health, Labour and Welfare)

#### **[International collaboration (cooperation and harmonization)]**

- Consider supply of virus samples to international organizations (WHO, OIE etc) and nations that wish (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)

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### **Medical response**

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- Provide advices on health control of employees of farms where highly pathogenic avian influenza occurs and those engaging in disposal of affected poultry etc., and on the necessity of preventive administration of Antiviral drugs as necessary (Ministry of Health, Labour and Welfare)

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### **Risk communication**

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- Provide information on domestic responses and virus etc., as appropriate to media etc. in coordination with the governments of the regions where infection occurs (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Ensure avoidance of contact with wild birds among those who raise poultry in Japanese school abroad (Ministry of Education, Culture, Sports, Science and Technology)

**Phase 3A**

(Human infection(s) with a new subtype, but no human-to-human spread as a rule)

**--- No outbreak in Japan---**

\*Continue and strengthen measures in phase 2A

**Planning and coordination**

**[Designation as a Government-decreed infectious disease (etc.) based on the Infectious Diseases Law]**

Designate an influenza subtype that is considered to require hospitalization or other measures, taking account of infection status and pathogenicity of avian influenza among human, as a government-decreed infectious disease based on Section 7, Article 6 of the Infectious Diseases Law. Also revise the government decree to apply the above designation to Item 2, Article 2 of the Quarantine Act (Ministry of Health, Labour and Welfare)

**[Revision of the Implementation Rules for the School Health Law]**

Revise the Implementation Rules for the School Health Law, to include the government-decreed infectious disease designated above, based on Section 7, Article 6 of the Infectious Diseases Law, into infectious diseases against which preventive measures are required by the School Health Law (Ministry of Education, Culture, Sports, Science and Technology)

**[Inter-ministerial coordination]**

- Enhance recognition sharing among the relevant government bodies by establishing and ‘Inter-ministerial Avian Influenza Committee’, and strengthen the collaboration among relevant government bodies to promote joint measures (relevant government bodies)
- Establishment of ‘Headquarters for Pandemic Influenza Countermeasures’ (Ministry of Health, Labour and Welfare)
  - Establish Headquarters for Pandemic Influenza Countermeasures chaired by Minister of Health, Labour and Welfare

**[Review of the Action Plan]**

- Review the government’s ‘Pandemic Influenza Preparedness Action Plan of the Japanese Government’ as needed (Ministry of Health, Labour and Welfare; relevant government bodies)
- Share information on measures of government bodies based on the Action Plan in the Committee (government bodies)

**[Promotion of research activities]**

- Expand research activities including international collaboration (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the situation of outbreak of highly pathogenic avian influenza in animals and humans and responses etc. with foreign relevant organizations (Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Education, Culture, Sports, Science and Technology)

- Consider international collaboration and coordination system on the development of vaccines etc. (Ministry of Foreign Affairs, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Health, Labour and Welfare)
- Organize a team of experts in epidemiology, examination, clinical practices, and domestic animal health as necessary in preparation for a shift to phase 4, and consider the deployment in response to requests from international organizations or nations where infection occurs (Ministry of Foreign Affairs, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Health, Labour and Welfare)
- Acceptance of trainees, dispatch of experts, and field training to foster researchers, health care workers, animal health experts, and health officials abroad. (Ministry of Foreign Affairs, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and relevant government bodies)

**[Others]**

- Request prefectures to establish headquarters for pandemic influenza countermeasures (Ministry of Health, Labour and Welfare)
- Request businesses to prepare for the pandemic period, such as collecting relevant information and formulating action plans, to ensure prevention of counter-infection at workplaces, and continuity of business (relevant government bodies)

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**Surveillance**

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- Conduct influenza surveillance among poultry, swine etc, based on affected cases (conduct surveillance in all poultry farms taking attenuated virus strain into consideration)(Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Ensure early detection and report of abnormal poultry from poultry farmers etc. (Ministry of Agriculture, Forestry and Fisheries)
- Investigate whether birds migrating to Japan and wild birds possess highly pathogenic influenza virus or not (Ministry of the Environment, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries and Ministry of Education, Culture, Sports, Science and Technology.)
- Implement surveillance on drug-resistant influenza strains in Japan, and collect information from other countries in collaboration with the WHO neuraminidase inhibitor sensitivity monitoring network (Ministry of Health, Labour and Welfare)
- Implement surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify occurrence of pandemic influenza in Japan immediately (Ministry of Health, Labour and Welfare)
- Implement virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)
- Develop standards for designated medical institutions to be included in cluster surveillance and syndrome surveillance that shall be initiated from phase 4, and request prefectures to prepare a list of selected organizations and implement NESID syndromes surveillance register, etc. (Ministry of Health, Labour and Welfare)

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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## Prevention and containment

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### **[Inspection and measures against immigrants]**

- Instruct quarantines to promote early detection of immigrants with symptoms of influenza specified by Item 2, Article 2 of the Quarantine Act, by taking their temperatures with thermography or other devices, as well as to prepare necessary supplies and inspection devices to treat such immigrants, thereby bolstering front-line measures that include medical examination based on Article 13, and health monitoring and notification to the local governors based on Article 18 of the above Law (Ministry of Health, Labour and Welfare)
- Alert overseas travelers to the situation of the outbreak of highly pathogenic avian influenza abroad and prevention of infection (self-restraint from entry to chicken farms or markets that sell live birds) (Ministry of Health, Labour and Welfare)
- If there is strong suspect of human-to-human overseas infection in foreign countries, while WHO has not yet declared Phase 4, voluntary suspension of international flights and passenger ship services shall be requested as necessary based on the call by the Ministry of Health, Labour and Welfare. (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
- Implement sterilization of shoe soles of returnees who visited chicken farms in nations or regions where infection occurs, and disinfection of vehicles entering from neighboring countries where infection occurs (Ministry of Agriculture, Forestry and Fisheries)
- Alert the prevention of infection and instruct the responses when infection is suspected to the Japanese nationals residing in countries experiencing where highly pathogenic avian influenza infection (Ministry of Foreign Affairs)
- Ensure schools etc. to take measures to prevent infection among Japanese students in nations where infection occurs (Ministry of Education, Culture, Sports, Science and Technology)

### **[Development and dissemination of guidelines for human inspection etc.]**

- Develop guidelines for measures to prevent invasion of new influenza at human inspection etc., and disseminate them to inspection stations and relevant organizations (Ministry of Health, Labour and Welfare and relevant government bodies)
- Conduct simulation practices and field practices based on guidelines (Ministry of Health, Labour and Welfare)

### **[Preventive measures against highly pathogenic avian influenza in poultry]**

- Ensure sanitary control such as disinfection of humans and vehicles at farm levels and prevention of invasion of wild birds to prevent the outbreak among domestic poultry flocks (Ministry of Agriculture, Forestry and Fisheries)
- Prevent the spread of infection by suggesting prefectures preventive measures for infected poultry (including disposal of affected animals, movement restriction of poultry flocks in surrounding farms etc.) (Ministry of Agriculture, Forestry and Fisheries)
- Support and request prefectures on protection of farm employees and those engaging in



infectious disease prevention from infection (such as virological tests, wearing masks and protective clothes, vaccination, and preventive administration of Antiviral drugs) as necessary (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

- Implement assistance activities by Self-Defense Forces in response to requests from prefectures if it is recognized that urgent responses are necessary and it is difficult for prefectures to respond in cases such as slaughter of large amounts of affected birds (Ministry of Defense)
- Use reserved vaccines for poultry, as necessary, in difficulties in implementing prompt measures to prevent the spread in rapid expansion of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)
- Support resume of operations of affected farmers by mutual funds and financing facilities in addition to allowance provided to affected animals based on the Law for prevention of domestic animal infectious diseases (Ministry of Agriculture, Forestry and Fisheries)
- Establish an investigation team on infection routes immediately after the outbreak to investigate a source and route of infection (Ministry of Agriculture, Forestry and Fisheries)

**[Measures against patients]**

- Take measures to hospitalize, or take other measures to, influenza patients (including suspected cases) of influenza designated as a government-decreed infectious disease based on Section 7, Article 6 of the Infectious Diseases Law (including suspected cases) (Ministry of Health, Labour and Welfare)

**[Emergency transfer of patients]**

- Examine measures to retain emergency and first-aid functions considering the situation that the infection occurs in Japan, particularly during the pandemic period. Request individual fire departments to formulate stockpiles of protective equipment for paramedics and other ambulance workers, who are likely to contact patients first, and provide them fire departments with necessary support (Fire and Disaster Management Agency)

**[Measures against imported animals]**

- Conduct follow-up survey etc. in coordination with relevant local authorities when imported poultry is found to be infected case in Japan. Take measures such as disposal as necessary (Ministry of Health, Labour and Welfare)
- Terminate import of living birds and poultry meat etc. from nations or regions where highly pathogenic avian influenza infection occurs (Ministry of Agriculture, Forestry and Fisheries)
- Confirm proofs showing no infection with highly pathogenic avian influenza etc. by sanitary certificates issued by exporting countries for birds and poultry meat imported from nations and regions qualified for export, and prevent invasion of affected poultry and poultry meat by implementing inspection (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

**[International Cooperation]**

- Cooperate for containment measures in nations where infection occurs (Ministry of Foreign Affairs and relevant government bodies)

**[Others]**

- Ensure avoidance of contact with wild birds among those who raise poultry including schools and homes (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, and Ministry of Agriculture, Forestry and Fisheries)

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## Antiviral drugs

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### [Securing Antiviral drugs]

- Determine the amount of Antiviral drugs to be secured, and start stockpiling (Ministry of Health, Labour and Welfare)

- Target amount of stockpile of oseltamivir phosphate (product name: Tamiflu)

[Total number of patients requiring treatment: doses for 25 million patients]

(1) Amount reserved by the government and prefectures: doses for 21 million patients

Government: doses for 10.5 million patients

Prefectures: doses for 10.5 million patients

(2) \*amount of domestic circulation: doses for 4 million patients

(dose for one patient is 2 capsules daily for 5 days, total 10 capsules)

\* Estimated remaining amount at the end of regular season

(Note) The number of patients requiring treatment is the estimated number of patients who visit medical institutions if 25% of the Japanese population are infected with new influenza (calculated based on a CDC model)

- Target amount of reserved zanamivir hydrate (product name: Relenza)

(1) amount of domestic circulation \*: doses for 150 thousands patients

(2) amount reserved by the government \*\*: doses for 600 thousands patients

\* Amount of domestic circulation for regular influenza

\*\* Target amount purchased by the government apart from (1)

(Note) The above target stockpile amounts shall be increased as necessary from the viewpoint of crisis management, considering the possibility of viruses obtaining tolerance to oseltamivir phosphate, and referring to the status of surveillance on drug-resistance strains.

- Start formulating government stockpiles of Antiviral drugs required for prophylaxis treatment (Ministry of Health, Labour and Welfare)
- Secure Antiviral drugs for international coordination and the Japanese nationals residing abroad. Consider overseas supply in appropriate time as necessary (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)
- Request prefectures to secure Antiviral drugs (Ministry of Health, Labour and Welfare)

### [Appropriate distribution of Antiviral drugs]

- Instruct medical institutions (including institutional ones) and wholesalers of medical products on appropriate distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

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## Vaccines

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### **[Development and manufacturing system]**

- Manufacture and stockpile pre-pandemic vaccines source (Ministry of Health, Labour and Welfare)
  - In preparation for emergency vaccination to health care workers and workers in public services around the nation, start manufacturing and stockpiling pre-pandemic vaccines source in this stage
  - Review candidate virus strains for production of vaccines as necessary, according to the mutation of genetic viral structures and the availability of newly isolated virus strains. Establish domestic systems that can produce vaccines based on the above, attenuate newly isolated viruses for vaccine production, and ensure related quality assurance
  - Secure hen's eggs required for vaccine production and prepare as necessary for vaccine production in an appropriate and timely manner
  - Request prefectures to identify the number of those who need emergent vaccination including health care workers and workers in necessary services
  - Make efforts to secure the pre-pandemic vaccines source corresponding to the whole necessary amount
  - Review response plans concerning securing eggs for production of pandemic vaccines in preparation for phase 4

### **[Improvement of vaccination system]**

- Develop basic principles for vaccination and establish guidelines for the implementation of vaccination (Ministry of Health, Labour and Welfare)
  - Review the priority of vaccination based on epidemiological information and manufacturing capacity
  - Prepare for registration of medical institutions and centers designated for vaccination and arrangement of required equipment
  - Discuss on registration of personnel by job category and local area required for the implementation of vaccination and conduct preliminary practices in pilot areas

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## Medical response

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### **[Securing designated medical institutions]**

- Request prefectures to organize designated medical institutions responsible for diagnosis and treatment of new influenza patients in phase 4 and 5 (Ministry of Health, Labour and Welfare)
  1. Medical institutions designated for infectious diseases
  2. Medical institutions with beds for tuberculosis (hereinafter referred to as “cooperating medical institutions”)

Medical institutions designated for infectious diseases shall estimate their capacity to accept patients of pandemic influenza, not only in infectious diseases wards but

throughout their available facilities. Cooperating medical institutions shall also estimate their capacity to accept patients of pandemic influenza, not only in negative pressure wards but also in any other rooms, by exclusively using particular floors or buildings for pandemic influenza patients and avoiding the virus from outflowing.

- Status of medical institutions designated for infectious diseases (as of March 31, 2007)

- Medical institutions designated for specific infectious diseases:  
3 (number of beds: 8)
- Medical institutions designated for type I infectious diseases:  
26 (number of beds: 49)
- Medical institutions designated for type II infectious diseases:  
315 (number of beds: 1635, of which 980 negative pressure beds)

Status of beds for pneumonia (as of October 1, 2005)

Number of medical institutions with beds for pneumonia: 307  
Number of beds for pneumonia: 12279  
Number of negative pressure beds: 3305

- Request prefectures to secure medical institutions that should treat feverish outpatients (Ministry of Health, Labour and Welfare)

**[Securing medical care in pandemic]**

- Request prefectures to prepare a list of medical institutions including mainly public ones that accept inpatients that is estimated to reach 101 thousands at most in pandemic, depending on the situation of each prefecture (e.g. respond on a priority bases in the following inpatient medical institutions)(Ministry of Health, Labour and Welfare)
  - Medical institutions designated for infectious diseases and those with beds for pneumonia
  - Public medical institutions stated by the Medical Care Law (Municipal hospitals, Japan Red Cross, Saiseikai Hospitals etc.)
  - Medical institutions operated by National Hospital Organization, National Universities, and Medical Institutions of Japan Labour Health and Welfare Organization
- Request prefectures to instruct all hospitalizing medical institutions to formulate plans for the acceptance and treatment of pandemic influenza patients and estimate available beds, in preparation for the pandemic period (Ministry of Health, Labour and Welfare)
- Request prefectures to study medical institutions that should provide regular treatment for cancers, dialysis and other diseases, without responding to outpatients or hospitalization of (suspected) cases of pandemic influenza, to retain local medical functions (Ministry of Health, Labour and Welfare)
- Stockpile necessary medical supplies to ensure prompt and smooth initial response for pandemic, and request prefectures to investigate necessary medical equipment and rooms for expansion of the number of beds in designated medical institutions and to secure them

(e.g. PPE, respirators, rapid diagnosis kit, and simple negative pressure device)(Ministry of Health, Labour and Welfare)

- Develop guidelines for diagnosis, treatment, measures against in-hospital infection, and transfer of patients and communicate them to medical institutions (Ministry of Health, Labour and Welfare)
  - Review guidelines according to revisions of definitions of infectivity, cases etc, as needed
  - Decide triage policy (guiding method for suspected new influenza patients to visit designated medical institutions)
  - Develop guidelines for systems of restriction and acceptance of patients
- Promote the development of high-sensitive examination kit for new influenza (Ministry of Health, Labour and Welfare)
- Conduct simulation practices assuming the outbreak in Japan in coordination with prefectures, medical institutions and other relevant organizations (Ministry of Health, Labour and Welfare)

#### **[Reconfirmation of medical system]**

- Request prefectures to discuss on measures to provide medical care when cluster infection occurs in centers for children, the elderly and disables (Ministry of Health, Labour and Welfare)
- Investigate the number of patients to be accepted, development of patient response manual, and situation of establishment of treatment system in the early stage in National University affiliated hospitals (Ministry of Education, Culture, Sports, Science and Technology)

#### **[Others]**

- Consider living support (periodic visit, medical consultation or care at home, treatment at home, meal services etc.) for home care recipients (children, the elderly, and disables), transferring, responses in death etc. (Ministry of Health, Labour and Welfare)
- Request prefectures to understand and review the cremation capacity of crematorium (Ministry of Health, Labour and Welfare)

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#### **Risk communication**

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- Designate a spokesperson in Ministry of Health, Labour and Welfare, to centralize information provision to the media, etc. (Ministry of Health, Labour and Welfare)
  - Provide information to media etc by the spokesperson, paying full attention to situations of the outbreak and responses
- Develop and review, as needed, messages to general public by phase (details of information and media) (Ministry of Health, Labour and Welfare)
- Provide information to the Japanese nationals residing in countries or regions where infection occurs (Ministry of Foreign Affairs)
- Ensure avoidance of contact with wild birds among those who raise poultry in Japanese schools in countries where new influenza infection occurs (Ministry of Education, Culture, Sports, Science and Technology)

- Provide information to general public on prevention of infection with highly pathogenic avian influenza etc. through media including the website (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Provide information on new influenza through the website of Ministry of Health, Labour and Welfare. Implement government public relations through newspapers and other media (Ministry of Health, Labour and Welfare, Cabinet Office and Ministry of Foreign Affairs)
  - Development of Questions and Answers (for general public, children and disables)
  - Dissemination of correct knowledge and recommended measures to prevent infection (general measures for prevention of infection, health control, and call for self-restriction of non-urgent travel to regions where infection occurs)

<b>Phase 3B</b> (Human infection(s) with a new subtype, but no human-to-human spread ,as a rule)
<b>---Outbreak in Japan--</b>
*Continue and strengthen measures in phase 2
<b>Planning and coordination</b>

**[Designation as a Government-decreed infectious disease etc. based on the Infectious Diseases Law]**

- Designate an influenza subtype that is considered to require hospitalization or other measures, taking account of infection status and pathogenicity of avian influenza among human, as a government-decreed infectious disease based on Section 7, Article 6 of the Infectious Diseases Law. Also revise the government decree to apply the above designation to Item 2, Article 2 of the Quarantine Act (Ministry of Health, Labour and Welfare)

**[Responses to the outbreak]**

- Inform WHO of information on the outbreak in Japan (Ministry of Health, Labour and Welfare)
- Make efforts to cooperate with prefectures to implement proactive epidemiological investigation (Ministry of Health, Labour and Welfare)
- Deploy a team of experts including epidemiologists, clinicians etc. to prefectures as necessary (Ministry of Health, Labour and Welfare)

**[Promotion of research activities]**

- Expand research activities including international collaboration (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the situation of outbreak of highly pathogenic avian influenza in animals and humans and responses etc. with foreign relevant organizations (Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Education, Culture, Sports, Science and Technology)
- Consider international collaboration and coordination system on the development of vaccines etc. (Ministry of Foreign Affairs, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Health, Labour and Welfare and relevant government bodies)

**[Others]**

- Request businesses to prepare for the pandemic period, such as collecting relevant information and formulating action plans, to ensure prevention of infection at workplace, and continuity of business (relevant government bodies)

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**Surveillance**

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- Enhance inspection system such as influenza surveillance among poultry, swine etc, based on affected cases (conduct surveillance in all poultry farms taking attenuated virus strain into consideration)(Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)

- Understand the whole number of human infection of influenza (type 4 infectious disease) by reports from doctors (Ministry of Health, Labour and Welfare)
- Investigate whether birds migrating to Japan and wild birds possess highly pathogenic influenza virus or not (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of the Environment)
- Implement surveillance on drug-resistant influenza strains in Japan, and collect information about other countries in collaboration with the WHO neuraminidase inhibitor sensitivity monitoring network (Ministry of Health, Labour and Welfare)
- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify occurrence of pandemic influenza in Japan immediately (Ministry of Health, Labour and Welfare)
- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)
- Develop standards for designated medical institutions for cluster surveillance and syndrome surveillance that shall be initiated from phase 4, and request prefectures to prepare a list of selected organizations and implement NESID syndromes surveillance register, etc. (Ministry of Health, Labour and Welfare)
- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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## **Prevention and containment**

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### **[Development and dissemination of guidelines for human inspection etc.]**

- Develop guidelines for measures to prevent invasion of new influenza at human inspection etc., and disseminate them to inspection stations and relevant organizations (Ministry of Health, Labour and Welfare and relevant government bodies)
- Conduct simulation practices and field practices based on guidelines (Ministry of Health, Labour and Welfare)

### **[Inspection and measures against immigrants]**

- Instruct quarantines to promote early detection of immigrants with symptoms of influenza specified by Item 2, Article 2 of the Quarantine Act, by taking their temperatures with thermography or other devices, as well as to prepare necessary supplies and inspection devices to treat such immigrants, thereby bolstering front-line measures that include medical examination based on Article 13, and health monitoring and notification to the local governors based on Article 18 of the above Law (Ministry of Health, Labour and Welfare)
- Implement sterilization of shoe soles of returnees who visited chicken farms in nations or regions where infection occurs, and disinfection of vehicles entering from neighboring countries where infection occurs (Ministry of Agriculture, Forestry and Fisheries)
- Request suspected highly pathogenic avian influenza patients (with symptoms) self-restriction of leaving the country (Ministry of Health, Labour and Welfare)



- Alert the Japanese nationals residing in countries experiencing highly pathogenic avian influenza infections to take infection preventive measure, and advise them how to react when infection is suspected (Ministry of Foreign Affairs)
- Ensure schools etc. to take measures to prevent infection among Japanese students in countries where infection occurs (Ministry of Education, Culture, Sports, Science and Technology)

**[Preventive measures against highly pathogenic avian influenza in poultry]**

- Ensure sanitary control such as disinfection of humans and vehicles at farm levels and prevention of invasion of wild birds to prevent the outbreak among domestic poultry flocks (Ministry of Agriculture, Forestry and Fisheries)
- Prevent the spread of infection by suggesting prefectures on preventive measures for infected poultry (including disposal of affected animals, movement restriction of poultry flocks in surrounding farms etc.) (Ministry of Agriculture, Forestry and Fisheries)
- Support and request prefectures on protection of farm employees and those engaging in infectious disease prevention from infection (such as virological tests, wearing masks and protective clothes, vaccination, and preventive administration of Antiviral drugs) as necessary (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Implement assistance activities by Self-Defense Forces in response to requests from prefectures if it is recognized that urgent responses are necessary and it is difficult for prefectures to respond in cases such as slaughter of large amounts of affected birds. (Ministry of Defense)
- Use reserved vaccines for poultry, as necessary, in difficulties in implementing prompt measures to prevent the spread in rapid expansion of highly pathogenic avian influenza (Ministry of Agriculture, Forestry and Fisheries)
- Conduct vigilance by prefectural police in surrounding areas in accordance with measures for infectious disease prevention as necessary (National Police Agency)
- Establish an investigation team on infection routes immediately after the outbreak to investigate a source and route of infection (Ministry of Agriculture, Forestry and Fisheries)
- Support resume of operations of affected farmers by mutual funds and financing facilities in addition to allowance provided to affected animals based on the Law for prevention of domestic animal infectious diseases (Ministry of Agriculture, Forestry and Fisheries)
- Ensure avoidance of contact with wild birds among those who raise poultry including schools and homes (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, and Ministry of Agriculture, Forestry and Fisheries)

**[Measures against imported animals]**

- Request prefectures to conduct physical examinations if any abnormalities are found in breeders having close contact with birds in pet traders and zoos (Ministry of Health, Labour and Welfare)
- Terminate import of living birds and poultry meat etc. from nations or regions where highly pathogenic avian influenza infection occurs (Ministry of Agriculture, Forestry and Fisheries)

- Confirm proofs showing no infection with highly pathogenic avian influenza etc. by sanitary certificates issued by exporting countries for birds and poultry meat imported from nations and regions qualified for export, and prevent invasion of affected poultry and poultry meat by implementing inspection (Ministry of Agriculture, Forestry and Fisheries and Ministry of Health, Labour and Welfare)
- Confirm correctly sanitary certificates concerning highly pathogenic avian influenza for imported birds and poultry meat issued by exporting countries etc., and prohibit the introduction of affected birds (Ministry of Agriculture, Forestry, and Fisheries and Ministry of Health, Labour and Welfare)

**[Responses to human infection with highly pathogenic avian influenza]**

- Implement proactive epidemiological studies as well as request prefectures to respond to patients and those who have had contact with patients (range of contact, instruction of responses when symptoms appear etc.), and to deaths (implementation of autopsy, burial method etc.)(Ministry of Health, Labour and Welfare)
- Conduct vigilance by prefectural police in surrounding areas in accordance with measures for infectious disease prevention as necessary (National Police Agency)
- Implement assistance activities by Self-Defense Forces in response to requests from prefectures if it is recognized that urgent responses are necessary and it is difficult for prefecture to respond in cases such as disposing large amounts of affected birds. (Ministry of Defense)
- Request prefectures and relevant parties to take prompt measures against infection source (Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)
- Hospitalize, and take necessary measures to, patients of influenza designated as a government-decreed infectious disease based on Section 7, Article 6 of the Infectious Diseases Law (including suspected cases) (Ministry of Health, Labour and Welfare)

**[International cooperation]**

- Cooperate in containment measures in nations where infection occurs (Ministry of Foreign Affairs and relevant government bodies)

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**Antiviral drugs**

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**[Securing Antiviral drugs]**

- Determine the amount of Antiviral drugs to be secured, and start stockpiling (Ministry of Health, Labour and Welfare)
- Secure Antiviral drugs for international cooperation and the Japanese nationals residing abroad. Consider overseas supply in appropriate time as necessary (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)
- Request prefectures to secure Antiviral drugs (Ministry of Health, Labour and Welfare)

**[Appropriate distribution of Antiviral drugs]**

- Instruct medical institutions (including intra-corporate ones) and wholesalers of medical products on appropriate distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

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## Vaccines

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### **[Development and manufacturing system]**

- Manufacture and stockpile pre-pandemic vaccines source (Ministry of Health, Labour and Welfare)
  - In preparation for emergency vaccination to health care workers and workers in public services around the nation, start manufacturing and stockpiling pre-pandemic vaccines source in this stage
  - Review candidate virus strains for production of vaccines as necessary, according to the mutation of genetic viral structures and the availability of newly isolated virus strains. Establish domestic systems that can produce vaccines based on the above, attenuate newly isolated viruses for vaccine production, and ensure related quality assurance
  - Secure hen's eggs required for vaccine production and prepare as necessary for vaccine preparations in an appropriate and timely manner
  - Request prefectures to identify the number of those who need emergent vaccination including health care workers and workers in necessary services
  - Make efforts to secure the target amount of pre-pandemic vaccines source corresponding to the necessary amount
  - Review response plans concerning securing eggs for production of pandemic vaccines in preparation for phase 4

### **[Improvement of vaccination system]**

- Develop basic principles for vaccination and establish guidelines for the implementation of vaccination (Ministry of Health, Labour and Welfare)
  - Review the priority of vaccination based on epidemiological information and capacity of manufacturing
  - Prepare for registration of medical institutions and centers designated for vaccination and arrangement of required equipment
  - Discuss on registration of personnel by job category and local area required for the implementation of vaccination and conduct preliminary practices in pilot areas

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## Medical response

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### **[Securing designated medical institutions]**

- Request prefectures to organize designated medical institutions responsible for diagnosis and treatment of new influenza patients in phase 4 and 5 (Ministry of Health, Labour and Welfare)
  1. Medical institutions designated for infectious diseases (Specific infectious disease, Type I infectious disease, Type II infectious disease)
  2. Medical institutions with beds for tuberculosis (hereinafter referred to as “cooperating medical institutions”)

Medical institutions designated for infectious diseases shall estimate their capacity to accept patients of pandemic influenza, not only in infectious diseases wards but

throughout their available facilities. Cooperating medical institutions shall also estimate their capacity to accept patients of pandemic influenza, not only in negative pressure wards but also in any other rooms, by exclusively using particular floors or buildings for pandemic influenza patients and avoiding the virus from outflowing.

- Status of medical institutions designated for infectious diseases (as of March 31, 2007)

- Medical institutions designated for specific infectious diseases:  
3 (number of beds: 8)
- Medical institutions designated for type I infectious diseases:  
26 (number of beds: 49)
- Medical institutions designated for type II infectious diseases:  
315 (number of beds: 1635, of which 980 negative pressure beds)

Status of beds for pneumonia (as of October 1, 2005)

Number of medical institutions with beds for pneumonia: 307  
Number of beds for pneumonia: 12279  
Number of negative pressure beds: 3305

- Request prefectures to secure medical institutions that should treat feverish outpatients (Ministry of Health, Labour and Welfare)

#### **[Securing medical care in pandemic]**

- Request prefectures to decide measures for securing beds including mainly public ones that accept inpatients that is estimated to reach 101 thousands at most in pandemic, depending on the situation of each prefecture (Ministry of Health, Labour and Welfare)
- Request prefectures to instruct all hospitalizing medical institutions to formulate plans for the acceptance and treatment of pandemic influenza patients and estimate available beds, in preparation for the pandemic period (Ministry of Health, Labour and Welfare)
- Request prefectures to study medical institutions that should provide regular treatment for cancers, dialysis and other diseases, without responding to outpatients or hospitalization of (suspected) cases of pandemic influenza, to retain local medical functions (Ministry of Health, Labour and Welfare)
- Stockpile necessary medical supplies to ensure prompt and smooth initial response for pandemic, and request prefectures to investigate necessary medical equipment and rooms for expansion of the number of beds in designated medical institutions and to secure them (e.g. PPE, respirators, rapid diagnosis kit, and simple negative pressure device)(Ministry of Health, Labour and Welfare)
- Develop guidelines for diagnosis, treatment, measures against in-hospital infection, and transfer of patients and communicate them to medical institutions (Ministry of Health, Labour and Welfare)
  - Review guidelines according to revisions of definitions of infectivity, cases etc, as needed

- Decide triage policy (guiding method for suspected new influenza patients to visit designated medical institutions)
- Promote the development of high-sensitive examination kit for new influenza (Ministry of Health, Labour and Welfare)
- Conduct simulation practices assuming the outbreak in Japan in coordination with prefectures, medical institutions and other relevant organizations (Ministry of Health, Labour and Welfare and government bodies)

**[Responses to human infection with highly pathogenic avian influenza]**

- Provide rapid and reliable diagnosis to suspected patients having contact with infected birds, and recommend treatment with Antiviral drugs in case of definitive diagnosis (Ministry of Health, Labour and Welfare)
- Submit samples to National Institute of Infectious Diseases for subtype test and gene analysis etc. Provide information on test methods to local health institutes to enable self-implementation (Ministry of Health, Labour and Welfare)
- Confirm and review, as necessary, notification standards for ‘highly pathogenic avian influenza’ (Ministry of Health, Labour and Welfare)

**[Reconfirmation of medical care system]**

- Investigate the number of patients to be accepted, development of patient response manual, and situation of establishment of treatment system in the early stage in National University affiliated hospitals (Ministry of Education, Culture, Sports, Science and Technology)

**[Others]**

- Consider living support (periodic visit, medical consultation or care at home, treatment at home, meal services etc.) for home care recipients (children, the elderly, and disables), transferring, responses in death etc. (Ministry of Health, Labour and Welfare)
- Request prefectures to understand and review the cremation capacity of crematorium (Ministry of Health, Labour and Welfare)

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**Risk communication**

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- Designate a spokesperson in Ministry of Health, Labour and Welfare, to centralize information provision to the media, etc. (Ministry of Health, Labour and Welfare)
  - Provide information to media etc by the spokesperson, paying full attention to situations of the outbreak and responses
- Develop and review, as needed, messages to general public by phase (details of information and media) (Ministry of Health, Labour and Welfare)
- Provide information to the Japanese nationals residing in countries or regions where infection occurs (Ministry of Foreign Affairs)
- Ensure avoidance of contact with wild birds among those who raise poultry in Japanese schools in countries where new influenza infection occurs (Ministry of Education, Culture, Sports, Science and Technology)

- Conduct information provision to and sharing with prefectures through an emergency information provision system etc. (Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)
- Provide information on new influenza through the website of Ministry of Health, Labour and Welfare. Implement government public relations through newspapers and other media (Ministry of Health, Labour and Welfare, Cabinet Office, Ministry of Foreign Affairs and Ministry of Agriculture, Forestry and Fisheries)
  - Development of Questions and Answers (for general public, children and disables)
  - Dissemination of correct knowledge and recommended measures to prevent infection (general measures for prevention of infection, health control, and call for self-restriction of non-urgent travel to regions where infection occurs)

<b>Phase 4A</b> ( Small cluster(s) with limited human-to-human transmission, but spread is highly localized)
---No outbreak in Japan---
*Continue and strengthen measures in phase 3A
<b>Planning and coordination</b>

**[Reinforcement of response]**

- If the Ministry of Health, Labour and Welfare reports the occurrence of pandemic influenza to the Prime Minister of Japan, s/he shall declare the reinforcement of domestic response as necessary, and set up the Headquarters for Pandemic Influenza Countermeasures comprising relevant ministers.
- The Headquarters for Pandemic Influenza Countermeasures shall organize the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”) to provide the Headquarters with opinions and recommendations on policies against pandemic influenza, on which the Headquarters shall base their basic principles.

**[Designation as a Government-decreed infectious disease etc. based on the Infectious Diseases Law]**

- Designate as a government-decreed infectious disease based on the Infectious Diseases Law according to WHO Declaration immediately after a virus is identified, and revise the government decree to be applied to the Inspection Law (Ministry of Health, Labour and Welfare)

**[Information collection from nations and regions where infection occurs]**

- Cooperate with reference laboratories of WHO, OIE and FAO for identification and analysis of a virus strain, obtaining a virus subtype in question, sharing information on case definitions etc. (Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, Ministry of Foreign Affairs and Ministry of Education, Culture, Sports, Science and Technology)

**[Promotion of research activities]**

- Expand research activities including international collaboration (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Agriculture, Forestry and Fisheries, Ministry of Health, Labour and Welfare, and Ministry of the Environment)

**[International collaboration (cooperation and harmonization)]**

- Consider the dispatch of a expert team organized in phase 3A in response to requests from international organizations or nations where infection occurs (Ministry of Foreign Affairs, Ministry of Health, Labour and Welfare and Ministry of Agriculture, Forestry and Fisheries)
- Exchange information on the epidemic status and the effectiveness and safety of vaccines (Ministry of Health, Labour and Welfare)
- Establish the collaboration and coordination system on the development of vaccines etc. (Ministry of Health, Labour and Welfare and relevant government bodies)

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## Surveillance

- Understand the trend of new influenza occurrence (including suspected cases)(Ministry of Health, Labour and Welfare)

### **[Implementation of cluster surveillance]**

- Commence cluster surveillance for early detection of cluster(s) where infection occurs (Ministry of Health, Labour and Welfare)

### **[Implementation of syndrome surveillance]**

- Conduct syndrome surveillance for early detection of pandemic influenza patients, through compilation of syndrome information (Ministry of Health, Labour and Welfare)

### **[Support systems to research suspected cases]**

- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify domestic occurrence of pandemic influenza immediately (Ministry of Health, Labour and Welfare)

### **[Virological surveillance]**

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

### **[System for prompt identification of side reactions to vaccination]**

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

### **[Other]**

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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## Prevention and containment

### **[Inspection and measures against immigrants]**

- Review ‘guidelines for inspection etc’ based on information on infection routes of new influenza occurred abroad, pathogenicity etc. (Ministry of Health, Labour and Welfare and relevant government bodies)
- Take the following measures by inspection stations based on guidelines for inspection etc. to screen suspected new influenza patients among immigrants from regions where infection occurs based on questionnaires and examinations (Ministry of Health, Labour and Welfare)
  - Retain suspected new influenza patients based on examination etc. according to the Inspection Law
  - Isolate patients with definite diagnosis of new influenza based on the Quarantine Act, and treat them with Antiviral drugs.
  - Request individuals who are likely to have intense contact with suspected new influenza patients to stay in appropriate locations as necessary



- Request international airlines and vessel companies that identified new influenza patients were aboard to submit a list of passengers etc. and conduct proactive epidemiological studies among those passengers
- Order responses concerning measures against those with symptoms in airplanes and vessels (quarantine of those with symptoms, wearing masks, identification of cabin attendants etc.) through international airlines and vessel companies when captain of such airplanes and vessels inform inspection stations of having those with influenza-like symptoms aboard before the arrival (Ministry of Health, Labour and Welfare)
- Confirm and strengthen coordination between inspection stations and local governments and other relevant organizations and entities concerning measures to prevent infection, epidemiological studies, quarantine, retain etc. in preparation for receiving information on patients or deaths with influenza-like symptoms from airplanes and vessels arriving in Japan (Ministry of Health, Labour and Welfare and relevant government bodies)
- Voluntary suspension of international flights and passenger ship services shall be requested as necessary based on the call by the Ministry of Health, Labour and Welfare. (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
- The Ministry of Health, Labour and Welfare shall, in advance, designate appropriate quarantine locations in Japan for airplanes and vessels from regions where infection occurs, and consider to integrate quarantine locations in collaboration with the Ministry of Land, Infrastructure and Transport, international airlines and shipping companies, based on Section 2, Article 14 of the Quarantine Act (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
  - Consider to have passenger flights at Narita, Kansai, Chubu, and Fukuoka airport, and cargo flights at quarantine airports
  - Consider to have passenger ships at Yokohama, Kobe, and Kanmon port, and cargo ships at quarantined ports.
  - It may be difficult to integrate cargo ships due to their load and other reasons. In such cases, the Ministry of Health, Labour and Welfare shall discuss with the Ministry of Land, Infrastructure and Transport thoroughly to determine appropriate reactions, except for the cases, like the prior report on occurrence of patients, where mandatory risk control actions are inevitable..

**[Responses to the Japanese nationals residing abroad (long-term and permanent residents)]**

- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- Release appropriate overseas travel information on visiting and staying at countries and regions where new influenza occurs, taking into consideration comprehensively the designated area of infection within regions and travel recommendation by WHO, measures taken by the relevant country in question, and responses of major countries (Ministry of Foreign Affairs)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and available vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)

- Initiate consideration on provision of vaccines approved in Japan to the Japanese nationals residing abroad (Ministry of Foreign Affairs)
- Ensure schools to take measures to prevent infection among Japanese students in nations where infection is observed (Ministry of Education, Culture, Sports, Science and Technology)

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## **Antiviral drugs**

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### **[Securing Antiviral drugs]**

- Grasp the amount of Antiviral drugs reserved by the government and prefectures (Ministry of Health, Labour and Welfare)
- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in foreign countries where the infection occurs (Ministry of Foreign Affairs)

### **[Prophylaxis administration of Antiviral drugs]**

- Request medical institutions and other facilities to provide prophylaxis Antiviral drugs to those who, while on duty, had intense contact with patients, that have not entered Japan yet, without vaccination or appropriate protection to exposure.

### **[Request on the use of Antiviral drugs]**

- Request medical institutions to use Antiviral drugs appropriately (Ministry of Health, Labour and Welfare)

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## **Vaccines**

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### **[Development and manufacturing system]**

- Through prompt examination at the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”), request manufacturers immediately to produce vaccines from pre-pandemic vaccines source reserved by the Japanese government (Ministry of Health, Labour and Welfare)
- Commence manufacturing of pandemic vaccines immediately after securing of eggs for production of vaccines following the identification of a new influenza virus strain. In case of regular influenza vaccines manufacturing season, take appropriate responses such as shift of manufacturing line to the new influenza vaccines (\*) (Ministry of Health, Labour and Welfare)

\*Make much use of current manufacturing capacity of vaccines

- As the genetic viral structures mutate, review candidate virus strains for production of vaccines as necessary, and according to the availability of newly isolated virus strains. Produce vaccines based on the above (Ministry of Health, Labour and Welfare )

### **[Improvement of vaccination system]**

- Request prefectures to secure vaccination sites, doctors, devices etc. (Ministry of Health, Labour and Welfare)

### **[Vaccination system]**

- If vaccination is determined through examination at the Advisory Committee, the following actions shall be taken. (Ministry of Health, Labour and Welfare)  
(If new influenza vaccines are not approved by the Pharmaceutical Affairs Law)
- Allocate pre-pandemic vaccines to locations of vaccination emergently for health care workers and workers in public services, and implement the vaccination as necessary (Ministry of Health, Labour and Welfare)
- \* If pre-pandemic vaccines are not approved, their vaccination shall be implemented as emergency measures, considering the safety, efficacy, and the limitations for the subject of vaccination.
- Give special grant under the Pharmaceutical Affairs Law, and secure the imported vaccines, if domestically manufactured vaccines are not approved and vaccines approved by foreign governments are available. (Ministry of Health, Labour and Welfare)  
(If new influenza vaccines are approved by the Pharmaceutical Affairs Law)
- Pending the supply of pandemic vaccines, start vaccination of pre-pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)
- Vaccination shall be started as soon as pandemic vaccines are manufactured. (Ministry of Health, Labour and Welfare)
  - Estimate additional demand for vaccines in line with the expansion of infection, and determine whether the production of pandemic vaccines should be continued in an appropriate and timely manner
  - Pandemic vaccines shall be vaccinated to all the Japanese. However, if there is a certain restriction to the production capacity of vaccines, examine whether to vaccinate pre-pandemic or pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)

[Monitoring]

- Once the vaccination starts, implement vaccination monitoring, verify efficacy of vaccines, collect and analyze side reaction information (Ministry of Health, Labour and Welfare)

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**Medical response**

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**[Case definitions of new influenza]**

- Clarify, revise as needed, and communicate to relevant organizations case definitions of new influenza (Ministry of Health, Labour and Welfare)

**[Diagnosis of suspected cases]**

- Request prefectures to put up fever consultation centers, aimed at the early detection of patients and to prevent the expansion of infection (Ministry of Health, Labour and Welfare)
- Order medical institutions to examine and diagnose suspected new influenza patients according to triage principles (Ministry of Health, Labour and Welfare)

**[Promotion of development of high-sensitive test kit]**

- Promote the development of high-sensitive test kit for new influenza (Ministry of Health, Labour and Welfare)

**[Request on the use of Antiviral drugs]**

- Instruct medical institutions to refrain from using anti-influenza agent to regular influenza patients (H1N1, H3N2, and B type), as a rule (Ministry of Health, Labour and Welfare)
- Arrange the coordination of distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

**[Securing medical care]**

- Request prefectures to consider medical institutions that should provide regular treatments for cancers, dialysis and other diseases, without responding to outpatients or hospitalization of (suspected) cases of pandemic influenza, to retain local medical functions (Ministry of Health, Labour and Welfare)

**[Securing capacity of mortuary]**

- In preparation for the pandemic, request prefectural governments and municipalities to identify temporary mortuaries in hospitals and elsewhere, from hygienic viewpoint, etc. (Ministry of Health, Labour and Welfare)

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**Risk communication**

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**[Information provision]**

- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare).
  - Provide information on the status of outbreak in nations to alert general public
  - Announce publicly the designation of new influenza as a government-decreed infectious disease by the spokesperson
- Provide information on the status of outbreak and responses abroad by the spokesperson to media etc. as needed (Ministry of Health, Labour and Welfare)

**[Establishment of consultation services]**

- Request prefectures to establish consultation services available for residents in head offices or health centers in order to provide appropriate information. Distribute Questions and Answers (Ministry of Health, Labour and Welfare)
- Allocate a person responsible for answering phone calls concerning national measures against new influenza etc. (Ministry of Health, Labour and Welfare)
- Establish consultation services for local governments, and allocate a person exclusively responsible for it (Ministry of Health, Labour and Welfare)
- Establish consultation services for medical institutions (doctors) in coordination with medical associations (Ministry of Health, Labour and Welfare)
  - Distribute guidelines for diagnosis and treatment and Questions and Answers

**Phase 4B**

( Small cluster(s) with limited human-to-human transmission, but spread is highly localized)

**--- Outbreak in Japan--**

\*Continue and strengthen measures in phase 3

**Planning and coordination**

**[Reinforcement of response]**

- If the Ministry of Health, Labour and Welfare reports the occurrence of pandemic influenza to the Prime Minister of Japan, s/he shall declare the reinforcement of domestic response as necessary, and set up the Headquarters for Pandemic Influenza Countermeasures comprising relevant ministers.
- The Headquarters for Pandemic Influenza Countermeasures shall organize the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”) to provide the Headquarters with opinions and recommendations on policies against pandemic influenza, on which the Headquarters shall base their basic principles.

**[Designation as a Government-decreed infectious disease etc. based on the Infectious Diseases Law]**

- Designate as a government-decreed infectious disease immediately, and revise the government decree to be applied to the Inspection Law (Ministry of Health, Labour and Welfare)

**[Responses to the outbreak]**

- Inform WHO of information on the outbreak in Japan (Ministry of Health, Labour and Welfare)
- Make efforts to cooperate with the relevant prefectures to implement proactive epidemiological investigation (Ministry of Health, Labour and Welfare)
- Deploy a team of experts including epidemiologists, clinicians etc. to prefectures as necessary (Ministry of Health, Labour and Welfare)

**[Information collection from nations and regions where infection occurs]**

- Cooperate with reference laboratories of WHO, OIE and FAO for identification and analysis of a virus strain, obtaining a virus subtype in question, sharing information on case definitions etc. (Ministry of Health, Labour and Welfare, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Agriculture, Forestry and Fisheries)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the epidemic status and the effectiveness and safety of vaccines (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)
- Consider collaboration and coordination system on the development of vaccines etc. (Ministry of Health, Labour and Welfare and relevant government bodies)

**Surveillance**

**[Implementation of cluster surveillance]**

- Commence cluster surveillance for early detection of cluster(s) where infection occurs (Ministry of Health, Labour and Welfare)

**[Implementation of syndrome surveillance]**

- Conduct syndrome surveillance for early detection of pandemic influenza patients, through compilation of syndrome information (Ministry of Health, Labour and Welfare)

[Support systems to research suspected cases]

- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify domestic occurrence of pandemic influenza immediately (Ministry of Health, Labour and Welfare)

[Virological surveillance]

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

[System for prompt identification of side reactions to vaccination]

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

[Other]

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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**Prevention and containment**

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**[Inspection and measures against immigrants]**

- Review ‘guidelines for inspection etc’ based on information on infection routes of new influenza occurred abroad, pathogenicity etc. (Ministry of Health, Labour and Welfare and relevant government bodies)
- Take the following measures by inspection stations based on guidelines for inspection etc. to screen suspected new influenza patients among immigrants from regions where infection occurs based on questionnaires and examinations (Ministry of Health, Labour and Welfare)
  - Retain suspected new influenza patients based on examination etc. according to the Inspection Law
  - Isolate patients with definite diagnosis of new influenza based on the Quarantine Act, and treat them with Antiviral drugs
  - Request individuals who are likely to have intense contact with suspected new influenza patients to stay in appropriate locations as necessary
  - Request international airlines and vessel companies that identified new influenza patients were aboard to submit a list of passengers etc. and conduct proactive epidemiological studies among those passengers
- Direct responses concerning measures against those with symptoms in airplanes and vessels (quarantine of those with symptoms, wearing masks, identification of cabin attendants etc.) through international airlines and vessel companies when captain of such airplanes and vessels inform inspection stations of having those with influenza-like symptoms aboard

before the arrival (Ministry of Health, Labour and Welfare)

- Confirm and strengthen coordination between inspection stations and local governments and other relevant organizations and entities concerning measures to prevent infection, epidemiological studies, quarantine, retain etc. in preparation for receiving information on patients or deaths with influenza-like symptoms from airplanes and vessels arriving in Japan (Ministry of Health, Labour and Welfare and relevant government bodies)
- Voluntary suspension of international flights and passenger ship services shall be requested as necessary based on the call by the Ministry of Health, Labour and Welfare. (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
- Request international airlines as well as shipping companies to cooperate in requesting those with symptoms such as fever at embarkation procedure counters, etc. refrain from traveling. (Ministry of Health, Labour and Welfare and relevant government bodies)

**[Responses to the Japanese nationals residing abroad (long-term and permanent residents)]**

- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- Release appropriate overseas travel information on visiting and staying at countries and regions where new influenza occurs, taking into consideration comprehensively the designated area of infection within regions and travel recommendation by WHO, measures taken by the relevant country, and responses of major countries (Ministry of Foreign Affairs)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and available vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)
- Disseminate the status of outbreak of new influenza in Japan among immigrants to Japan (especially temporary visitors such as aliens) to communicate measures to prevent infection at individual levels and responses when symptoms appear (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)
- Recommend self-restraint of non-urgent overseas travel (Ministry of Health, Labour and Welfare)
- Ensure schools to take measures to prevent infection among Japanese students in nations where infection is observed (Ministry of Education, Culture, Sports, Science and Technology)

**[Responses to cases]**

- Grasp the status of infection on a real-time basis, request prefectures where the outbreak occurs immediately to take necessary measures, based on the Infectious Disease Law, such as actions to patients (hospitalization, treatment policy, active epidemiological surveillance, etc.), responses to those who have had contacts with patients (specification of range of contact, request of self-restraint of going-out, implementation of health care, instruction of responses when symptoms appear etc.), and measures to prevent the expansion of infection (Ministry of Health, Labour and Welfare)
- Support the prefectures where the infection occurred in giving prophylaxis Antiviral drugs

to particular cluster of people to prevent the expansion of infection, and give prophylaxis Antiviral drugs to those exposed to high risk of infection such as health care workers.

- Provide information on the outbreak on an emergent basis, and request to take necessary measures based on the Infectious Diseases Law (Ministry of Health, Labour and Welfare)

**[Restraint of citizens' social activities]**

- Recommend and disseminate the followings among Japanese citizen and relevant parties (Ministry of Health, Labour and Welfare; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Land, Infrastructure and Transport; and relevant government bodies)
  - Recommend self-restraint of non-urgent large scale meetings or gatherings in a region where infection is observed
  - Request the relevant operators to close schools, centers etc. temporarily with which patients and those who have had contact with patients are related
  - Relevant governmental agencies shall jointly request the administrators of public facilities, transportations, etc. in the areas where infection occurs, to cooperate in implementing measures to reduce occasions of cross-contact between users/passengers to prevent the expansion of infection.
  - Recommend wearing masks, gargling and washing hands to offices, welfare centers etc in an area where infection is observed. Also, recommend employees with new influenza symptoms to be absent and visit hospital
  - Recommend wearing masks, gargling, and washing hands to residents and those who are in centers in an area where infection is observed

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**Antiviral drugs**

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**[Securing Antiviral drugs]**

- Grasp the amount of Antiviral drugs reserved by the government and prefectures (Ministry of Health, Labour and Welfare)
- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in countries where the infection occurs (Ministry of Foreign Affairs)

**[Prophylaxis administration of Antiviral drugs]**

- Request prefectural governments, medical institutions, and other facilities to provide prophylaxis Antiviral drugs to those who had intense contact with patients, and to health care workers that were exposed without vaccination or appropriate protection. (Ministry of Health, Labour and Welfare)

**[Request on the use of Antiviral drugs]**

- Request medical institutions to use Antiviral drugs appropriately (Ministry of Health, Labour and Welfare)



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## Vaccines

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### **[Manufacturing system]**

- Through examination at the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”) as necessary, request vaccine manufacturers to immediately produce vaccines from pre-pandemic vaccines source reserved by the Japanese government. (Ministry of Health, Labour and Welfare)

### **[Vaccination system]**

- If vaccination is determined through examination at the Advisory Committee, appropriate actions shall be taken in line with the vaccination system indicated in Phase 4A (Ministry of Health, Labour and Welfare)

### **[Monitoring]**

- Conduct monitoring of vaccination, evaluation of the effectiveness of vaccines and collection and analysis of information on adverse effects in accompanying with the initiation of administration (Ministry of Health, Labour and Welfare)

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## Medical response

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### **[Organization of medical institutions]**

- Request prefectures to put up outpatients departments for fever that differentiates pandemic influenza patients and patients with other diseases. (Ministry of Health, Labour and Welfare)
- Request prefectures to treat new influenza patients in medical institutions designated for specific infectious diseases, type I infectious diseases and type II infectious diseases (Ministry of Health, Labour and Welfare)
- Request prefectures to prepare a list of accommodations and staff available for accepting patients based on the assumption of phase 6B (Ministry of Health, Labour and Welfare)

### **[Patients and those who have had contact with patients in Japan]**

- Ensure medical institutions to transfer suspected new influenza patients to medical institutions designated for infectious diseases based on their travel history, according to the basic policy that they are diagnosed and treated in the designated institutions (Ministry of Health, Labour and Welfare)
- Guide suspected patients to be hospitalized for conducting definite diagnosis according to case definitions by the Infectious Disease Law (Ministry of Health, Labour and Welfare)
  - Send samples of suspected new influenza cases to local health institutes for examinations of subtypes
- Order self-restraint of going out, taking physical examination, and responses when symptoms appear during the follow-up period for sign/symptom of infection to suspected new influenza patients and those who have had contact with patients including families. Quarantine those with symptoms immediately (Ministry of Health, Labour and Welfare)

### **[Request on the use of Antiviral drugs]**

- Request medical institutions to refrain from use of Antiviral drugs to those other than suspected new influenza patients, as a rule, in order to reserve the agents when lack of Antiviral drugs is expected, taking into consideration responses to patients in the pandemic (Ministry of Health, Labour and Welfare)
- Organize distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

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## **Risk communication**

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### **[Information provision]**

- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare)
  - Provide information on the status of outbreak and responses in Japan to alert general public
- Provide information on the status of outbreak and responses abroad by the spokesperson to media etc. (Ministry of Health, Labour and Welfare)

### **[Establishment of consultation services]**

- Request prefectures to establish consultation services available for residents in head offices or health centers to provide appropriate information. Distribute Questions and Answers (Ministry of Health, Labour and Welfare)
- Allocate a person responsible for answering phone calls concerning national measures against new influenza etc. (Ministry of Health, Labour and Welfare)
- Establish consultation services for local governments, and allocate a person exclusively responsible for it (Ministry of Health, Labour and Welfare)
- Establish consultation services for medical institutions (doctors) in coordination with medical associations (Ministry of Health, Labour and Welfare)
  - Distribute guidelines for diagnosis and treatment and Questions and Answers

**Phase 5A**

(Larger cluster(s) of human-to-human transmission of new subtype with increased risk of pandemic)

---No outbreak in Japan

\*Continue and strengthen measures in phase 4A

**Planning and coordination**

**[Information collection from nations and regions where infection occurs]**

- Cooperate with reference laboratories of WHO, OIE and FAO for identification and analysis of a virus strain, obtaining a virus subtype in question, sharing information on case definitions etc. (Ministry of Health, Labour and Welfare, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Agriculture, Forestry and Fisheries)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the epidemic status and the effectiveness and safety of vaccines with foreign counterparts (Ministry of Health, Labour and Welfare and relevant government bodies)
- Consider overseas provision of vaccines, if possible, based on manufacturing capacity of vaccines (Ministry of Foreign Affairs; Ministry of Health, Labour and Welfare)
- Consider to dispatch expert teams in response to requests from international organizations or nations where infection occurs (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)

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**Surveillance**

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**[Cluster surveillance]**

- Continue cluster surveillance for early detection of cluster(s) where infection occurs (Ministry of Health, Labour and Welfare)

**[Implementation of syndrome surveillance]**

- Continue syndrome surveillance for early detection of pandemic influenza patients, through compilation of syndrome information (Ministry of Health, Labour and Welfare)

**[Support systems to research suspected cases]**

- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify domestic occurrence of pandemic influenza immediately (Ministry of Health, Labour and Welfare)

**[Virological surveillance]**

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

**[System for prompt identification of side reactions to vaccination]**

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

[Other]

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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## Prevention and containment

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### **[Inspection and measures against immigrants]**

- Review ‘guidelines for inspection etc’ based on information on infection routes of new influenza occurred abroad, pathogenicity etc. (Ministry of Health, Labour and Welfare and relevant government bodies)
- Take the following measures by inspection stations based on guidelines for inspection etc. to suspected new influenza patients identified among immigrants from regions where infection occurs based on questionnaires and examinations (Ministry of Health, Labour and Welfare)
  - Retain suspected new influenza patients based on examination etc. according to the Quarantine Act
  - Isolate patients with definite diagnosis of new influenza according to the Quarantine Act
  - Request individuals who are likely to have intense contact with suspected new influenza patients to stay in appropriate locations as necessary
  - Request international airlines and vessel companies that identified new influenza patients were aboard to submit a list of passengers etc. and conduct proactive epidemiological studies among those passengers
- Direct responses concerning measures against those with symptoms in airplanes and vessels (quarantine of those with symptoms, wearing masks, identification of cabin attendants etc.) through international airlines and vessel companies when captain of such airplanes and vessels inform inspection stations of having those with influenza-like symptoms aboard before the arrival (Ministry of Health, Labour and Welfare)
- Confirm and strengthen coordination between inspection stations and local governments and other relevant organizations and entities concerning measures to prevent infection, epidemiological studies, quarantine, retain etc. in preparation for receiving information on patients or deaths with influenza-like symptoms from airplanes and vessels arriving in Japan (Ministry of Health, Labour and Welfare and relevant government bodies)
- Voluntary suspension of international flights and passenger ship services shall be requested as necessary based on the call by the Ministry of Health, Labour and Welfare (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
- The Ministry of Health, Labour and Welfare shall, in advance, designate appropriate quarantine locations in Japan for airplanes and vessels from regions where infection occurs, and consider to integrate quarantine locations in collaboration with the Ministry of Land, Infrastructure and Transport, international airlines and shipping companies, based on Section 2, Article 14 of the Quarantine Act (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
  - Consider to have passenger flights at Narita, Kansai, Chubu and Fukuoka Airports, and cargo flights at quarantine airports

- Consider to have passenger ships at Yokohama, Kobe, and Kanmon port and cargo ships at quarantine ports
- It may be difficult to integrate cargo ships due to their load and other reasons. In such cases, the Ministry of Health, Labour and Welfare shall discuss with the Ministry of Land, Infrastructure and Transport thoroughly to determine appropriate reactions, except for the cases, like the prior report on occurrence of patients, where mandatory risk control actions are inevitable..

**[Response to Japanese nationals residing abroad (long-term and permanent residents)]**

- Release appropriate overseas travel information on visiting and staying at countries and regions where new influenza occurs, taking into consideration comprehensively designated area of infection within regions and travel recommendation by WHO, measures taken by the relevant country, and responses of major countries (Ministry of Foreign Affairs)
- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and availability of vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)
- Ensure schools to take measures to prevent infection among Japanese students in all regions (Ministry of Education, Culture, Sports, Science and Technology)

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**Antiviral drugs**

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**[Securing Antiviral drugs]**

- Grasp the amount of Antiviral drugs reserved by the government and prefectures (Ministry of Health, Labour and Welfare)
- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in countries where infection occurs (Ministry of Foreign Affairs)

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**Vaccines**

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**[Development and manufacturing system]**

- Through prompt examination at the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”), request manufacturers immediately to produce vaccines from pre-pandemic vaccines source reserved by the Japanese government (Ministry of Health, Labour and Welfare)
  - Commence manufacturing of pandemic vaccines immediately after securing of eggs for production of vaccines following the identification of a new influenza virus strain. In case of regular influenza vaccines manufacturing season, take appropriate responses such as shift of manufacturing line to the new influenza vaccines(\*) (Ministry of Health, Labour and Welfare)
- \* Make much use of current manufacturing capacity of vaccines

- As the genetic viral structure mutate, review candidate virus strains for production of vaccines as necessary, and according to the availability of newly isolated virus strains. Produce vaccines based on the above (Ministry of Health, Labour and Welfare)

**[Improvement of vaccination system]**

- Request prefectures to secure vaccination sites, doctors, devices etc. (Ministry of Health, Labour and Welfare)

[Vaccination system]

- If vaccination is determined through examination at the Advisory Committee, the following actions shall be taken. (Ministry of Health, Labour and Welfare)

(If new influenza vaccines are not approved by the Pharmaceutical Affairs Law)

- Allocate pre-pandemic vaccines to locations of vaccination emergently for health care workers and workers in public services around the nation, and implement the vaccination as necessary (Ministry of Health, Labour and Welfare)

\* If pre-pandemic vaccines are not approved, their vaccination shall be implemented as emergency measures, considering the safety, efficacy, and the limitations for the subject of vaccination.

- Give special grant under the Pharmaceutical Affairs Law, and secure the imported vaccines, if domestically manufactured vaccines are not approved and vaccines approved by foreign governments are available. (Ministry of Health, Labour and Welfare)

(If new influenza vaccines are approved by the Pharmaceutical Affairs Law)

- Pending the supply of pandemic vaccines, start vaccination of pre-pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)

- Vaccination shall be started as soon as pandemic vaccines are manufactured. (Ministry of Health, Labour and Welfare)

➤ Estimate additional demand for vaccines in line with the expansion of infection, and determine whether the production of pandemic vaccines should be continued in an appropriate and timely manner

➤ Pandemic vaccines shall be vaccinated to all the Japanese. However, if there is a certain restriction to the production capacity of vaccines, examine whether to vaccinate pre-pandemic or pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)

[Monitoring]

- Once the vaccination starts, implement vaccination monitoring, verify efficacy of vaccines, collect and analyze side reaction information (Ministry of Health, Labour and Welfare)

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**Medical response**

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**[Case definitions of new influenza]**

- Clarify the definitions of new influenza cases, and disseminate the revised case definitions to medical institutions, as applicable (Ministry of Health, Labour and Welfare)

**[Responses to suspected cases]**

- Ensure medical institutions to transfer suspected new influenza patients to medical institutions designated for infectious diseases based on their travel history, according to the basic policy that they are diagnosed and treated in the designated institutions (Ministry of Health, Labour and Welfare)
- Guide suspected patients to be hospitalized for conducting definite diagnosis according to case definitions by the Infectious Disease Law (Ministry of Health, Labour and Welfare)
  - Send samples of suspected new influenza cases to local health institutes for examinations of subtypes

**[Request on the use of Antiviral drugs]**

- **Request** medical institutions to refrain from use of Antiviral drugs to those other than suspected new influenza patients, as a rule, in order to reserve the agents when lack of Antiviral drugs is expected, taking into consideration responses to patients in the pandemic (Ministry of Health, Labour and Welfare)
- Organize distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

**[Securing capacity of mortuary]**

- In preparation for the pandemic, request prefectural governments and municipalities to identify mortuaries in hospitals and elsewhere, from hygienic and other viewpoints (Ministry of Health, Labour and Welfare)

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**Risk communication**

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**[Information provision]**

- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare).
  - Provide information on the status of outbreak in nations and alert general public
- Provide information on the status of infection occurrences and responses in foreign countries by the spokesperson to media etc. as needed (Ministry of Health, Labour and Welfare)

**[Improvement of consultation services]**

- Request prefectures to expand consultation services in head offices or health centers in preparation for pandemic (Ministry of Health, Labour and Welfare)
- Establish consultation services for medical institutions (doctors) in coordination with medical associations (Ministry of Health, Labour and Welfare)

**Phase 5B**

(Larger cluster(s) of human-to-human transmission of new subtype with increased risk of pandemic)

**---Outbreak in Japan--**

\*Continue and strengthen measures in phase 4B

**Planning and coordination**

**[Strengthening of the system]**

- Further strengthen the joint measures by the whole government bodies, under the initiative of the Headquarters for Pandemic Influenza Countermeasures comprising relevant ministers (Relevant government bodies)
- Strengthen the system under ‘Headquarters for Pandemic Influenza Countermeasures of Ministry of Health, Labour and Welfare’ towards pandemic (Ministry of Health, Labour and Welfare)

**[Responses to the outbreak]**

- Notify WHO of the outbreak in Japan (Ministry of Health, Labour and Welfare)
- Enhance coordination with relevant prefectures concerning the implementation of proactive epidemiological studies (Ministry of Health, Labour and Welfare)
- Deploy teams of experts such as epidemiologists, clinicians etc. to prefectures as necessary (Ministry of Health, Labour and Welfare)

**[Collecting information from countries and regions where infection occurs]**

- Cooperate with reference laboratories of WHO, OIE, and FAO, and other facilities for identification and analysis of virus strains, obtaining a virus subtype in question, sharing decisive information on case definitions etc. (Ministry of Health, Labour and Welfare, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, and Ministry of Agriculture, Forestry and Fisheries)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the epidemic status and the effectiveness and safety of vaccines with foreign counterparts (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)

**Surveillance**

**[Cluster surveillance]**

- Continue cluster surveillance for early detection of cluster(s) where infection occurs (Ministry of Health, Labour and Welfare)

**[Implementation of syndrome surveillance]**

- Conduct syndrome surveillance for early detection of pandemic influenza patients, through compilation of syndrome information (Ministry of Health, Labour and Welfare)

**[Support systems to research suspected cases]**

- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify



domestic occurrence of pandemic influenza immediately (Ministry of Health, Labour and Welfare)

[Virological surveillance]

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

[System for prompt identification of side reactions to vaccination]

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

[Other]

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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**Prevention and containment**

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**[Inspection and measures against immigrants]**

- Take the following measures by inspection stations based on guidelines for inspection etc. to suspected new influenza patients identified among immigrants from regions where infection occurs based on questionnaires and examinations (Ministry of Health, Labour and Welfare)
  - Retain suspected new influenza patients based on examination etc. according to the Quarantine Act
  - Recommend hospitalization to confirmed new influenza patients based on the Quarantine Act
  - Request individuals who are likely to have intense contact with suspected new influenza patients to stay in appropriate locations as necessary
  - Request international airlines and vessel companies that identified new influenza patients were aboard to submit a list of passengers etc. and conduct proactive epidemiological studies among those passengers
- Direct responses concerning measures against those with symptoms in airplanes and vessels (quarantine of those with symptoms, wearing masks, identification of cabin attendants etc.) through international airlines and vessel companies when captain of such airplanes and vessels inform inspection stations of having those with influenza-like symptoms aboard before the arrival (Ministry of Health, Labour and Welfare)
- Confirm and strengthen coordination between inspection stations and local governments and other relevant organizations and entities concerning measures to prevent infection, epidemiological studies, quarantine, retain etc. in preparation for receiving information on patients or deaths with influenza-like symptoms from airplanes and vessels arriving in Japan (Ministry of Health, Labour and Welfare and relevant government bodies)
- The Ministry of Health, Labour and Welfare shall request voluntary suspension of international flights and passenger ships services from regions where infection occurs, as necessary. (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)

- Disseminate the status of outbreak of new influenza in Japan among immigrants to Japan (especially temporary visitors such as aliens) to communicate measures to prevent infection at individual levels and responses when symptoms appear (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)
- Request international airlines as well as vessel companies to cooperate in advising against travel to those with symptoms such as fever at embarkation procedure counters (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)

**[Responses to Japanese nationals residing abroad (long-term and permanent residents)]**

- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- Release appropriate overseas travel information on visiting and staying at countries and regions where new influenza occurs, taking into consideration comprehensively the designated area of infection within regions and travel recommendation by WHO, measures taken by the nation in question, and responses of major countries (Ministry of Foreign Affairs)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and available vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)
- Ensure schools to take measures to prevent infection among Japanese students in all regions (Ministry of Education, Culture, Sports, Science and Technology)

**[Responses to cases]**

- Grasp the current situation of outbreak, and request prefectures where outbreak occurs to take necessary spread-preventive measures such as care of patients based on the Infectious Diseases Law (hospitalization, treatment policy, proactive epidemiological studies etc.), responses to those who have had contact with patients (specification of range of contact, request of self-restraint of going-out, implementation of physical examination, instruction of responses when symptoms appear etc.) (Ministry of Health, Labour and Welfare)
- Provide information to the relevant prefectures on the outbreak on an emergent basis, and request to take necessary measures based on the Infectious Diseases Law (Ministry of Health, Labour and Welfare)
- Request prefectures and relevant organizations to enhance measures to prevent infection in hospitals, centers for the elderly (centers where patients with underlying diseases gather), prison administration centers or bases (with many residents) etc. (Ministry of Health, Labour and Welfare and relevant government bodies)

**[Restraint of citizens' social activities]**

- Recommend and disseminate the followings among Japanese citizen and relevant people (Ministry of Health, Labour and Welfare; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Land, Infrastructure and Transport; and relevant government bodies)
  - Recommend self-restraint of non-urgent large scale meetings or gatherings in areas where infection is observed
  - Request the relevant operators to close schools, centers etc. temporarily with which

patients and those who have had contact with patients are related

- Relevant governmental agencies shall jointly request the administrators of public facilities, transportations, etc. in the areas where infection occurs, to cooperate in implementing measures to reduce occasions of cross-contact between users/passengers to prevent the expansion of infection
- Recommend offices and other facilities like welfare centers, to wear masks, gargle, and wash hands. Also, recommend employees with new influenza symptoms to be absent and consult a doctor.
- Recommend citizens to wear masks, gargle, and wash hands

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## **Antiviral drugs**

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### **[Securing Antiviral drugs]**

- Grasp the amount of Antiviral drugs reserved by the government and prefectures (Ministry of Health, Labour and Welfare)
- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in countries where the infection occurs (Ministry of Foreign Affairs)

### **[Prophylaxis administration of Antiviral drugs]**

- Request prefectural governments, medical institutions, and other facilities to provide prophylaxis Antiviral drugs to those who had intense contact with patients, and to health care workers that were exposed without vaccination or appropriate protection (Ministry of Health, Labour and Welfare)

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## **Vaccines**

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### **[Manufacturing system]**

- Through examination at the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”) as necessary, request vaccine manufacturers to immediately produce vaccines from pre-pandemic vaccines source reserved by the Japanese government (Ministry of Health, Labour and Welfare)

### **[Vaccination system]**

- If vaccination is determined through examination at the Advisory Committee, appropriate actions shall be taken in line with the vaccination system indicated in Phase 5A. (Ministry of Health, Labour and Welfare)

### **[Monitoring]**

- Conduct monitoring of vaccination, evaluation of the effectiveness of vaccines and collection and analysis of information on adverse effects in accompanying with the initiation of administration (Ministry of Health, Labour and Welfare)

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## **Medical response**

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### **[Organization of medical institutions]**

- Request prefectures to put up outpatient departments for fever that differentiates pandemic influenza patients and patients with other diseases, according to the number of patients (Ministry of Health, Labour and Welfare)

**[Patients and contacts in Japan]**

- Ensure medical institutions to transfer suspected new influenza patients to medical institutions designated for infectious diseases based on their travel history, according to the basic policy that they are diagnosed and treated in the designated institutions (Ministry of Health, Labour and Welfare)
- Guide suspected patients to be hospitalized for conducting definite diagnosis according to case definitions by the Infectious Disease Law (Ministry of Health, Labour and Welfare)
  - Send samples of suspected new influenza cases to local health institutes for examinations of subtypes
- Order self-restraint of going out, taking physical examination, and responses when symptoms appear during the follow-up period for sign/symptom of infection to suspected new influenza patients and those who have had contact with patients including families. Quarantine those with symptoms immediately (Ministry of Health, Labour and Welfare)

**[Request on the use of Antiviral drugs]**

- Request medical institutions to refrain from use of Antiviral drugs to those other than suspected new influenza patients, as a rule, in order to reserve the agents when lack of Antiviral drugs is expected, taking into consideration responses to patients in the pandemic (Ministry of Health, Labour and Welfare)
- Organize distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

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**Risk communication**

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- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare)
  - Provide information on the status of outbreak and responses in Japan to alert to general public
- By the spokesperson, information on the status of infection occurrences and responses in Japan and foreign countries is provided to the media, etc. (Ministry of Health, Labour and Welfare)

<b>Phase 6A</b> (Pandemic phase; increased and sustained transmission in general population)
---No outbreak in Japan---
*Continue and strengthen measures in phase 5A
<b>Planning and coordination</b>

**[Information collection]**

- Enhance information collection from nations and regions where infection occurs (Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, Ministry of Foreign Affairs and Ministry of Education, Culture, Sports, Science and Technology)
  - Information sharing and cooperation with WHO collaboration centers etc.
  - Coordination concerning the identification and analysis of a virus subtype
  - Obtaining of a virus subtype in question
  - Review and decision of case definitions

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the epidemic status and the effectiveness and safety of vaccines with foreign counterparts (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)
- Consider overseas provision of vaccines, if possible, based on manufacturing capacity of vaccines (Ministry of Foreign Affairs and Ministry of Health, Labour and Welfare)

**[Review of the Action Plans]**

- Consider whether the revision of the Action Plan is necessary based on the outbreak trend and pathological conditions abroad (Ministry of Health, Labour and Welfare)

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**Surveillance**

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**[Cluster surveillance]**

- Continue cluster surveillance for early detection of cluster(s) where infection occurs (Ministry of Health, Labour and Welfare)

**[Implementation of syndrome surveillance]**

- Continue syndrome surveillance for early detection of pandemic influenza patients, through compilation of syndrome information (Ministry of Health, Labour and Welfare)

**[Support systems to research suspected cases]**

- Continue surveillance assisted by the support system to research suspected cases, the National Epidemiological Surveillance of Infectious Diseases (NESID), to identify domestic occurrence of pandemic influenza immediately (Ministry of Health, Labour and Welfare)

**[Virological surveillance]**

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

**[System for prompt identification of side reactions to vaccination]**

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

[Other]

- Prepare for the pandemic period by planning surveillances on influenza-like diseases and prompt identification of deaths during pandemic

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**Prevention and containment**

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**[Inspection and measures against immigrants]**

- Take the following measures by inspection stations based on guidelines for inspection etc. to suspected new influenza patients identified among immigrants from regions where infection occurs based on questionnaires and examinations (Ministry of Health, Labour and Welfare)
  - Retain suspected new influenza patients based on examination etc. according to the Quarantine Act
  - Isolate patients with definite diagnosis of new influenza according to the Quarantine Act
  - Request individuals who are likely to have intense contact with suspected new influenza patients to stay in appropriate locations as necessary
  - Request international airlines and vessel companies that identified new influenza patients were aboard to submit a list of passengers etc. and conduct proactive epidemiological studies among those passengers
- Direct responses concerning measures against those with symptoms in airplanes and vessels (quarantine of those with symptoms, wearing masks, identification of cabin attendants who care the patient etc.) through international airlines and vessel companies when captains of such airplanes and vessels inform inspection stations of having those with influenza-like symptoms aboard before the arrival (Ministry of Health, Labour and Welfare)
- Confirm and strengthen coordination between inspection stations and local governments and other relevant organizations and entities concerning measures to prevent infection, epidemiological studies, quarantine, retain etc. in preparation for receiving information on patients or deaths with influenza-like symptoms from airplanes and vessels arriving in Japan (Ministry of Health, Labour and Welfare and relevant government bodies)
- Request self-restraint of operations of international flights and passenger ship services, as necessary, in response to requests from Ministry of Health, Labour and Welfare (Ministry of Health, Labour and Welfare and Ministry of Land, Infrastructure and Transport)
- The Ministry of Health, Labour and Welfare shall, in advance, designate appropriate quarantine locations in Japan for airplanes and vessels from regions where infection occurs, and consider to integrate quarantine locations in collaboration with the Ministry of Land, Infrastructure and Transport, international airlines and shipping companies, based on Section 2, Article 14 of the Quarantine Act (Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure and Transport)
  - Consider to have passenger flights at Narita, Kansai, Chubu and Fukuoka Airport, and cargo flights at quarantine airports
  - Consider to have passenger ships at Yokohama, Kobe, Kanmon Port and cargo ships at quarantine ports
  - It may be difficult to integrate cargo ships due to their load and other reasons. In such

cases, the Ministry of Health, Labour and Welfare shall discuss with the Ministry of Land, Infrastructure and Transport thoroughly to determine appropriate reactions, except for the cases, like the prior report on occurrence of patients, where mandatory risk control actions are inevitable

- Recommend self-restraint of non-urgent overseas trips (Ministry of Foreign Affairs)

**[Measures for the Japanese nationals residing abroad]**

- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- Release appropriate overseas travel information on visiting and staying at nations and regions where new influenza outbreaks, taking into consideration comprehensively the designated areas of infection within regions and travel recommendation by WHO, measures taken by the relevant country, and responses of major countries (Ministry of Foreign Affairs)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and available vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)
- Ensure schools to take measures to prevent infection among Japanese students in all regions (Ministry of Education, Culture, Sports, Science and Technology)

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**Antiviral drugs**

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**[Securing Antiviral drugs]**

- Grasp the amount of Antiviral drugs reserved by the government and prefectures (Ministry of Health, Labour and Welfare)
- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in countries where infection occurs (Ministry of Foreign Affairs)

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**Vaccines**

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**[Development and manufacturing system]**

- Through prompt examination at the Pandemic Influenza Experts Advisory Committee (hereinafter referred to as “Advisory Committee”), request manufacturers immediately to produce vaccines from pre-pandemic vaccines source reserved by the Japanese government (Ministry of Health, Labour and Welfare)
- Commence manufacturing of pandemic vaccines immediately after securing of eggs for production of vaccines following the identification of a new influenza virus strain. In case of regular influenza vaccines manufacturing season, take appropriate responses such as shift of manufacturing line to the new influenza vaccines (\*) (Ministry of Health, Labour and Welfare)
  - \* Make much use of current manufacturing capacity of vaccines
- As the genetic viral structure mutate, review candidate virus strains for production of vaccines as necessary, and according to the availability of newly isolated virus strains. Produce vaccines based on the above (Ministry of Health, Labour and Welfare)

[Improvement of vaccination system]

- Request prefectures to secure vaccination sites, doctors, devices etc. (Ministry of Health, Labour and Welfare)

[Vaccination system]

- If vaccination is determined through examination at the Advisory Committee, the following actions shall be taken. (Ministry of Health, Labour and Welfare)

(If new influenza vaccines are not approved by the Pharmaceutical Affairs Law)

- Allocate pre-pandemic vaccines to locations of vaccination emergently for health care workers and workers in public services, and implement the vaccination as necessary (Ministry of Health, Labour and Welfare)
- \* If pre-pandemic vaccines are not approved, their vaccination shall be implemented as emergency measures, considering the safety, efficacy, and the limitations for the subject of vaccination
- Give special grant under the Pharmaceutical Affairs Law, and secure the imported vaccines, if domestically manufactured vaccines are not approved and vaccines approved by foreign governments are available (Ministry of Health, Labour and Welfare)

(If new influenza vaccines are approved by the Pharmaceutical Affairs Law)

- Pending the supply of pandemic vaccines, start vaccination of pre-pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)
- Vaccination shall be started as soon as pandemic vaccines are manufactured. (Ministry of Health, Labour and Welfare)
  - Estimate additional demand for vaccines in line with the expansion of infection, and determine whether the production of pandemic vaccines should be continued in an appropriate and timely manner
  - Pandemic vaccines shall be vaccinated to all the Japanese. However, if there is a certain restriction to the production capacity of vaccines, examine whether to vaccinate pre-pandemic or pandemic vaccines to health care workers and workers in public services, as necessary and at their own consent (Ministry of Health, Labour and Welfare)

[Monitoring]

- Once the vaccination starts, implement vaccination monitoring, verify efficacy of vaccines, collect and analyze side reaction information (Ministry of Health, Labour and Welfare)

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**Medical response**

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**[Case definitions of new influenza]**

- Clarify the definitions of new influenza cases, and disseminate the revised case definitions to medical institutions, as applicable (Ministry of Health, Labour and Welfare)

**[Diagnosis of suspected cases]**

- Ensure medical institutions to transfer suspected new influenza patients to medical institutions designated for infectious diseases based on their travel history, according to the



basic policy that they are diagnosed and treated in the designated institutions (Ministry of Health, Labour and Welfare)

- Guide suspected patients to be hospitalized for conducting definite diagnosis according to case definitions by the Infectious Disease Law (Ministry of Health, Labour and Welfare)
  - Send samples of suspected new influenza cases to local health institutes for examinations of subtypes

**[Request on the use of Antiviral drugs]**

- Request medical institutions to refrain from use of Antiviral drugs to those other than suspected new influenza patients, as a rule, in order to reserve the agents when lack of Antiviral drugs is expected, taking into consideration responses to patients in pandemic (Ministry of Health, Labour and Welfare)
- Organize distribution of Antiviral drugs (Ministry of Health, Labour and Welfare)

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**Risk communication**

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- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare)
  - Provide information on the status of outbreak in nations to alert general public
- Provide information on the status of outbreak and responses abroad by the spokesperson to media etc. as needed (Ministry of Health, Labour and Welfare)

**Phase 6B**  
(Pandemic phase; increased and sustained transmission in general population)

**--Outbreak in Japan--**  
(Pandemic period includes the first wave(first epidemic), remission period and second wave)

\*Continue and strengthen measures in phase 5B

**Planning and coordination**

- The Prime Minister of Japan shall declare a state of emergency.

**[Strengthening of the system]**

- Further strengthen the joint measures by the whole government bodies, under the initiative of the Headquarters for Pandemic Influenza Countermeasures comprising relevant ministers (Relevant government bodies)

**[Review of the Action Plan]**

- Evaluate measures based on the Action Plan, and review the Plan as necessary (Ministry of Health, Labour and Welfare)

**[Easing measures against designated infectious diseases]**

- Discuss the easing of hospitalization requirements with prefectural governments and request the easing as necessary, in order to enable flexible responses to hospitalization etc. (Ministry of Health, Labour and Welfare)

**[Collecting information from countries and regions where infection occurs]**

- Cooperate with reference laboratories of WHO, OIE, and FAO, and other facilities, for identification and analysis of virus strains, obtaining a virus subtype in question, sharing decisive information on case definitions (Ministry of Health, Labour and Welfare; Ministry of Foreign Affairs; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries)

**[International collaboration (cooperation and harmonization)]**

- Exchange information on the epidemic status and the effectiveness and safety of vaccines with foreign counterparts (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)

**==Remission period==**

- Reorganize the system (Ministry of Health, Labour and Welfare and relevant government bodies)
- Evaluate measures in pandemic and review the Plan (Ministry of Health, Labour and Welfare and relevant government bodies)

**==Second wave==**

- Implement prompt responses based on the Action Plan taking experiences in the first wave into consideration (Ministry of Health, Labour and Welfare and relevant government bodies)

**Surveillance**

- Terminate cluster surveillance, syndrome surveillance, and the support system to research suspected cases (Ministry of Health, Labour and Welfare)

- Terminate normal fixed-point influenza surveillance (Ministry of Health, Labour and Welfare)

[Influenza-like diseases surveillance during pandemic]

- Identify the outbreak trends of pandemic influenza (Ministry of Health, Labour and Welfare)

[Virological surveillance]

- Continue virological surveillance by analyzing specimens taken from cases developing influenza-like symptoms at fixed-point medical institutions (Ministry of Health, Labour and Welfare)

[System for prompt identification of side reactions to vaccination]

- Ensure prompt identification of side reactions to vaccination on a real time basis (Ministry of Health, Labour and Welfare)

[Surveillance for prompt identification of deaths during pandemic]

- Identify the number of deaths promptly as part of pathogenicity analysis of pandemic influenza

==Remission period==

- Validate and evaluate the effects of surveillance etc. (Ministry of Health, Labour and Welfare)

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**Prevention and containment**

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**[Measures against immigrants]**

- Recommend self-restriction of non-urgent overseas travel (Ministry of Foreign Affairs)
- Request international airlines and vessel companies to cooperate in recommending self-restriction of travel to those with symptoms such as fever at embarkation procedure counters (Ministry of Health, Labour and Welfare and Ministry of Foreign Affairs)
- Request prefectures necessary responses to patients based on the Infectious Diseases Law (hospitalization, treatment policy, epidemiological studies etc.) and to those who have had contact with patients (range of contact, the necessity of request of self-restraint of going-out, instruction of responses when symptoms appear etc.) (Ministry of Health, Labour and Welfare)

**[Restraint of citizens' social activities]**

- Recommend and disseminate the followings among citizens and relevant parties (Ministry of Health, Labour and Welfare; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Land, Infrastructure and Transport; and relevant government bodies)
  - Recommend self-restraint of non-urgent large scale meetings or gatherings around the nation
  - Request the relevant operators to close schools, centers etc. temporarily with which patients and those who have had contact with patients are related
  - Relevant governmental agencies shall jointly request the administrators of public facilities, transportations, etc. nationwide, to cooperate in taking measures to reduce

occasions of cross-contact between users/passengers to prevent the expansion of infection.

- Recommend wearing masks, gargling and washing hands for offices, welfare centers etc. Also, urge employees with new influenza symptoms to be absent and visit hospital
- Recommend wearing masks, gargling, and washing hands to general public

**[Response to Japanese nationals residing abroad (long-term and permanent)]**

- To the Japanese nationals residing abroad, alert the prevention of infection and disseminate information on appropriate responses when infection is suspected (Ministry of Foreign Affairs)
- Release appropriate overseas travel information on visiting and staying at countries and regions where new influenza outbreaks, taking into consideration comprehensively the designated areas of infection areas within regions and travel recommendation by WHO, measures taken by the relevant country, and responses of major countries (Ministry of Foreign Affairs)
- Ensure schools to take measures to prevent infection among Japanese students in all regions (Ministry of Education, Culture, Sports, Science and Technology)
- If there are vaccines approved by foreign governments but not in Japan, inform Japanese nationals residing abroad of vaccination scheme and available vaccines in countries where they stay, so that they can receive vaccination at their own risk and discretion. (Ministry of Foreign Affairs)

**[Support for home care recipients]**

- Support home care recipients infected with new influenza etc. in coordination with prefectures, cities, and relevant organizations (Ministry of Health, Labour and Welfare)
  - Periodic visiting
  - Medical consultation or care at home
  - Meal services
  - Transfer to medical centers
  - Responses to those who died at home
  - Responses to children, the elderly, and disables, as necessary

==Remission period==

- Recommend delayed departure to suspected new influenza patients (with symptoms (Ministry of Health, Labour and Welfare)

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**Antiviral drugs**

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**[Securing Antiviral drugs]**

- Consider and implement, as necessary, additional provision of Antiviral drugs to Japanese nationals residing in countries where the infection occurs (Ministry of Foreign Affairs)

**[Termination of preventive administration of Antiviral drugs]**

- If the stockpile of Antiviral drugs is likely to run out, request prefectures to terminate preventive administration of Antiviral drugs to health care workers and workers in public services having had contact with patients (Ministry of Health, Labour and Welfare)

[Arrangement of distribution]

- Confirm supply of Antiviral drugs to regions in necessity based on the status of distribution of the agents and the spread of influenza by prefecture, and arrange appropriate supply (Ministry of Health, Labour and Welfare)

==Remission period==

- Stockpile Antiviral drugs in preparation for the second wave (Ministry of Health, Labour and Welfare)

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**Vaccines**

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**[Vaccination system]**

- If vaccination is determined through examination at the Advisory Committee, appropriate actions shall be taken in line with the vaccination system indicated in Phase 6A. (Ministry of Health, Labour and Welfare)

**[Monitoring]**

- Conduct monitoring of vaccination, evaluation of the effectiveness of vaccines and collection and analysis of information on adverse effects in accompanying with the initiation of administration (Ministry of Health, Labour and Welfare)

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**Medical response**

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**[Treatment of patients]**

- Disseminate the following information among medical institutions (Ministry of Health, Labour and Welfare)
  - Treat new influenza patients in all medical institutions when hospitalization requirements are eased, and limit hospital treatment to patients in severe conditions
  - Treat suspected new influenza patients with Antiviral drugs within 48 hours of onset of symptoms
  - The priority of treatment with Antiviral drugs is as follows:
    - (1) Hospitalized new influenza patients
    - (2) Patients who work at medical institution or public services
    - (3) High risk patients
    - (4) Children and the elderly
    - (5) General outpatients

**[Request on the use of Antiviral drugs]**

- Request medical institutions to refrain from use of Antiviral drugs to those other than confirmed and suspected new influenza patients (Ministry of Health, Labour and Welfare)

**[Inpatient treatment]**

- No quarantine of patients. Diagnose and treat new influenza patients in all medical institutions as a rule (Ministry of Health, Labour and Welfare)
- Secure measures for medical care when group infection is observed in welfare centers etc. (Ministry of Health, Labour and Welfare)
- Request prefectures to accept new influenza inpatients based on a list of medical institutions for hospitalization created in phase 3A (Ministry of Health, Labour and Welfare)
- Request prefectures to verify candidate accommodation centers and staff available for accepting patients listed in phase 4B (Ministry of Health, Labour and Welfare)
- Prepare a list of accommodation facilities other than medical institutions available for inpatients when lack of beds is expected based on the number of inpatients and ratio of use of beds (Ministry of Health, Labour and Welfare)
- Request prefectural governments and municipalities to increase the capacity of crematory and the utilization of mortuaries when the number of deaths increases (Ministry of Health, Labour and Welfare)

==Remission period==

- Request prefectures to take measures towards normalization of medical care (Ministry of Health, Labour and Welfare)
- Grasp children, the elderly and disables without care workers, and provide support as necessary (Ministry of Health, Labour and Welfare)

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### **Risk communication**

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- Update messages to general public and contents on the website of Ministry of Health Labour and Welfare as needed (Ministry of Health, Labour and Welfare)
- Provide information on the status of outbreak and responses in Japan to alert general public
- By the spokesperson, information on the status of infection occurrences and responses in Japan and foreign countries is provided to the media etc. (Ministry of Health, Labour and Welfare)

==Remission period==

- Reduce the number of persons responsible for consultation services to general public and local governments, as necessary (Ministry of Health, Labour and Welfare)
- Evaluate, review and re-organize the scheme of information provision in preparation for the second wave (Ministry of Health, Labour and Welfare and relevant government bodies)
- Provide information on the domestic and foreign status of outbreak and responses from the spokesperson to media etc. (Ministry of Health, Labour and Welfare)

**Post-pandemic period**  
(A rapid return to the interpandemic period)

**Planning and coordination**

- Evaluate responses in the pandemic period and review the plans (Ministry of Health, Labour and Welfare)
- Review guidelines, guidance, recommendations as necessary (Ministry of Health, Labour and Welfare and government bodies)

**Surveillance**

- Evaluate the past outbreak trend survey and surveillance etc., and realize effective utilization of personnel and resources (Ministry of Health, Labour and Welfare)
- Terminate the influenza-like diseases surveillance during pandemic and the surveillance for prompt identification of deaths during pandemic (Ministry of Health, Labour and Welfare)
- Resume normal fixed-point influenza surveillance (Ministry of Health, Labour and Welfare)

**Prevention and containment**

**[Measures against immigrants](Ministry of Health, Labour and Welfare)**

- Terminate recommendation of self-restraint of overseas travel, special public announcements, orders or screening etc. to immigrants

**[National measures] (Ministry of Health, Labour and Welfare and government bodies)**

- Terminate measures against the spread

**[Support for home care recipients etc.] (Ministry of Health, Labour and Welfare and government bodies)**

- Terminate supports for home care recipients by the government, prefectures, cities and relevant organizations

**Antiviral drugs**

- Re-organize the latest scientific findings on preventive administration of Antiviral drugs and treatment based on experiences in pandemic, and review and disseminate guidelines on use of Antiviral drugs (preventive administration and treatment), as necessary (Ministry of Health, Labour and Welfare)

**Vaccines**

- Implement comprehensive evaluation of the Action Plan and monitoring system (Ministry of Health, Labour and Welfare)
- Evaluate the safety and effectiveness of pandemic vaccines taking administered cases into consideration (Ministry of Health, Labour and Welfare)

**Medical response**

- Grasp children, the elderly and disables without care workers, and provide support as necessary (Ministry of Health, Labour and Welfare)

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**Risk communication**

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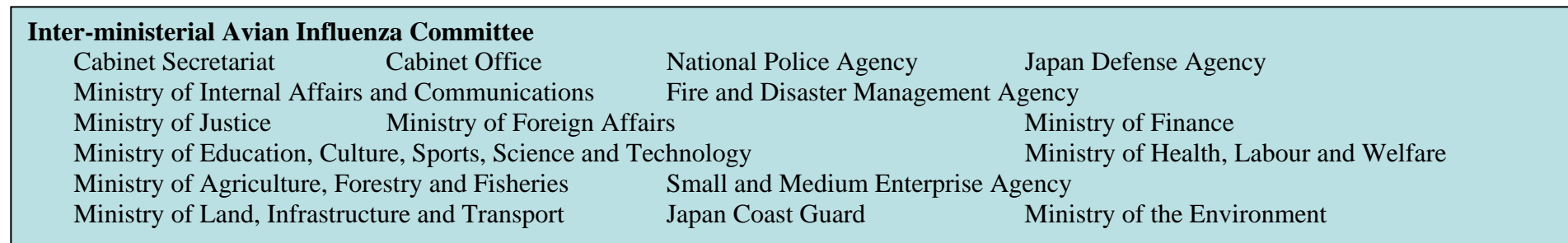
- Provide information on the domestic and foreign status of outbreak and responses by the spokesperson to media etc. by when the Declaration of Completion of Epidemic of New Influenza is issued (Ministry of Health, Labour and Welfare)



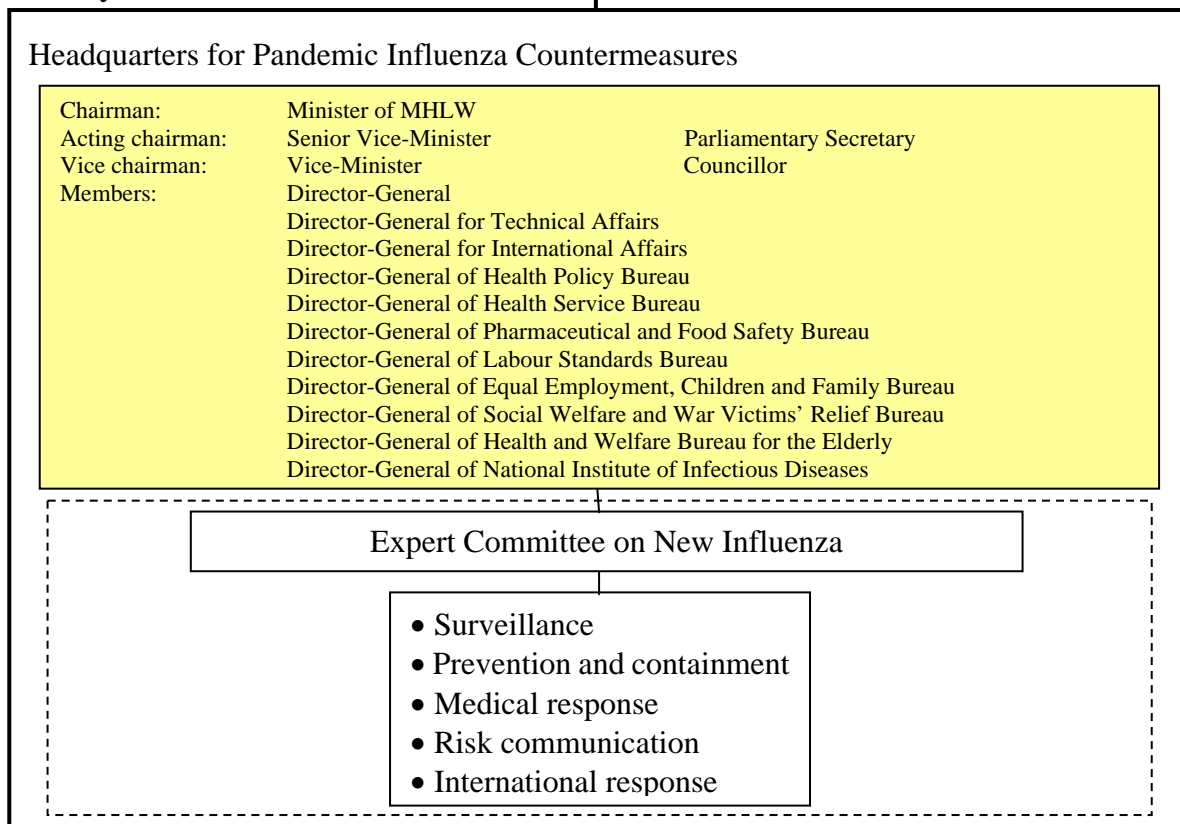
# References

# Promotion Scheme for Pandemic Influenza Preparedness

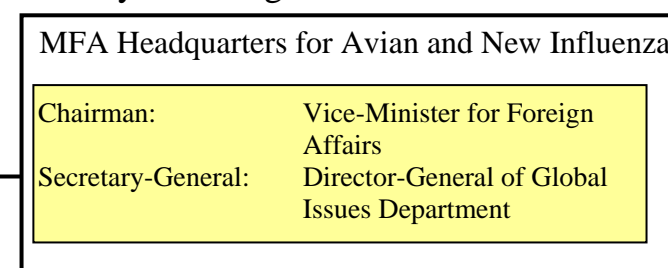
## Relevant Government Bodies



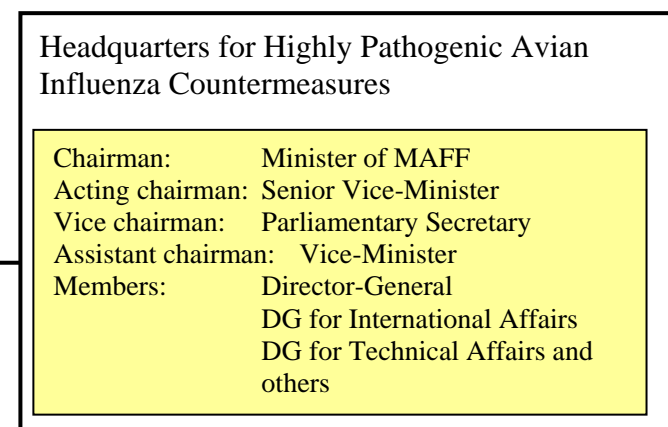
## Ministry of Health, Labour and Welfare



## Ministry of Foreign Affairs



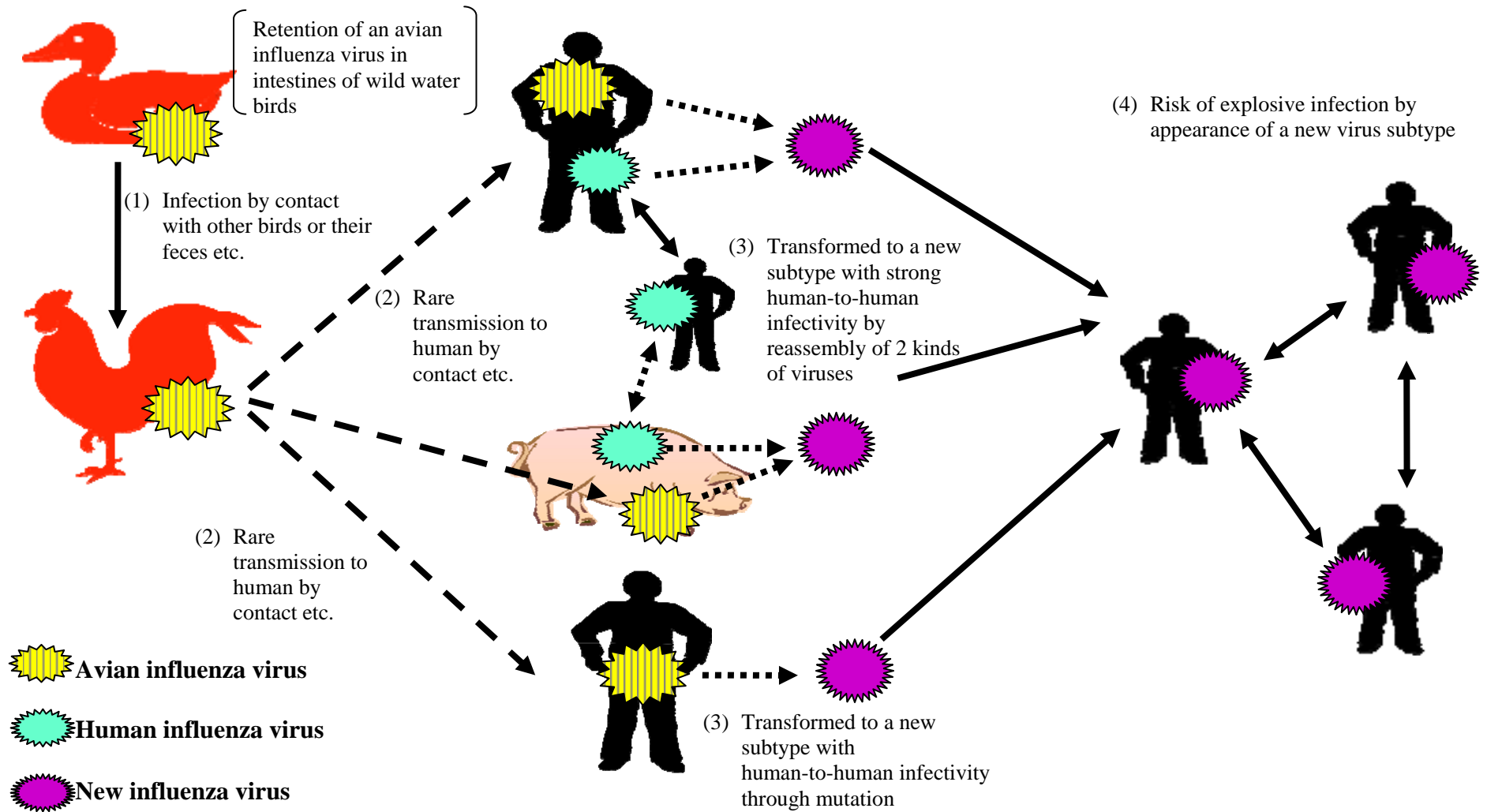
## Ministry of Agriculture, Forestry and Fisheries



## Influenza Pandemic Phases defined by WHO

Pandemic Phases according to WHO Classification 2005	Objectives of pandemic measures in each phase	Additional items by situation
<p><b>Phase 1</b> (Interpandemic period) No new influenza virus subtypes have been detected in humans, but an influenza virus subtype causing human infection has been detected</p>	Strengthen pandemic measures at levels of global, nation, prefecture and cities	
<p><b>Phase 2</b> (Interpandemic period) No new influenza virus subtypes have been detected in humans, but an influenza virus subtype with a substantial risk of human diseases has been detected</p>	Minimize the risk of human transmission, and establish the system to ensure prompt detection and report of human transmission	
<p><b>Phase 3</b> (Pandemic alert period) Human infection(s) with a new subtype, but no human-to-human spread basically</p>	Examine and diagnose a new virus subtype in preparation for next cases	Revise details of measures as appropriate, based on whether infection is observed in the region, whether personal exchange or trade with the infected region exists, or no influences.
<p><b>Phase 4</b> (Pandemic alert period) Small cluster(s) with limited human-to-human transmission, but spread is highly localized</p>	Make every effort to gain time to implement preparedness measures against infection including proactive introduction of containment measures such as quarantine and the development and administration of vaccines	
<p><b>Phase 5</b> (Pandemic alert period) Human-to-human transmission of a new influenza virus subtype has been detected, and larger cluster(s) suggesting high pandemic risk</p>		
<p><b>Phase 6</b> (Pandemic period) Pandemic phase; Increased and sustained transmission in general population</p>	Take every measure to minimize pandemic effects	Measures against the remission period and second wave in addition to the above-mentioned measures
<p><b>Post-pandemic period</b> A return to the interpandemic period</p>	Evaluate the effects of pandemic on various aspects, and implement planned activities for restoration and improve the measures	

# Relationship between Avian Influenza and New Influenza



## [Glossary]

### ○ Influenza

Influenza is an infectious disease caused by an influenza virus. It is classified into types A, B, and C depending on antigenicity of a causal virus. Type A is further divided into subtypes according to glycoprotein on the surface of a virus, hemagglutinin (HA) or neuraminidase (NA) (for example, A/Soviet, A/Hong Kong mean these subtypes).

### ○ Avian influenza

Avian influenza is an infectious disease caused by type A influenza viruses differing from human ones, and carried by birds, typically water birds.

Among them, those causing birds' deaths or otherwise indicating particularly high pathogenicity are called 'highly pathogenic avian influenza'.

Cases of birds to human transmission of influenza virus H5N1 have been identified recently, mainly among humans having close contact with infected birds or their viscera or excretory substances. No infection through intake of cooked meats or eggs has been reported.

### ○ Pandemic

Refers to worldwide outbreak of an infectious disease.

In particular, pandemic (new) influenza viruses may cause a serious pandemic if the viruses attain the ability of efficient human to human transmission, because most humans lack immunity against such viruses that have never existed before.

### ○ Poultry

Chicken, domestic duck, turkey and quail

### ○ Surveillance

Vigilance or monitoring

Especially for an infectious disease, monitoring and analysis of the outbreak trend (patients and pathogenic agents) are in place, based on the Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections.

### ○ Pathogenic agent surveillance

Monitoring system on the situations based on reports on the number of onsets and detailed types of causal pathogenic agents especially among infectious disease surveillance

### ○ Cluster surveillance

Monitoring system on the situations based on reports on the outbreak trend in clusters of a certain size in order to detect infected cluster(s)

○ Syndrome surveillance

System for early detection of an infectious disease, based on immediate reports of diagnosed patients with a certain symptoms in designated medical institutions

○ National Epidemiological Surveillance of Infectious Diseases (NESID)

Under the Infectious Diseases Law, the epidemic trends of various infectious diseases are under continuous monitoring to identify outbreak information promptly, thereby preventing their occurrence and expansion, as well as providing accurate information to the general public. This monitoring is based on reports from medical institutions diagnosing specified infectious diseases. The NESID refers to an electronic system based on the Internet and networks between the central and local governments, aimed at centralized and efficient compilation and analysis of such reports.

○ Support system to research suspected cases

Refers to a system based on the National Epidemiological Surveillance of Infectious Diseases (NESID), etc., to register information (especially record of behavior and contacts) of suspected cases of infection with a possibility of major outbreak, linking such information to diagnosis of suspected cases through epidemiological links and abnormal symptoms, thereby enabling the identification of new influenza subtype cases.

○ Virological surveillance

A system to research antigenicity, genetic types, and sensitivity to Antiviral drugs of new influenza viruses in epidemic, based on which information on the efficacy of vaccines and treatment methods should be evaluated and modified

○ Influenza-like diseases surveillance during pandemic

A system to continuously monitor the number of patients when infection expands, based on the reports on definitions (syndromes) of influenza-like diseases; this system aims to identify the status of epidemic, thereby contributing to the examination of countermeasures to the expansion of epidemic

○ System for prompt identification of side reactions to vaccination

A system to identify side reactions to vaccination; this system aims to support the judgments like continuing the vaccination, limiting the subjects of vaccination, and changing the priority in vaccination

○ Surveillance of drug-resistant strains

Collected virus strains should be tested for sensitivity to drugs and genetic types, to identify the frequency that drug-resistant strains appear, and their properties, etc.

○ Triage

Prioritization depending on the urgency or degree of a disease for appropriate transfer or treatment when there are many patients in disasters etc.

### ○ Respirator

Artificial respirator. A respirator is a device helping respiration by sending air or oxygen to patient's lungs in emergency or anesthesia.

### ○ Personal Protective Equipment (PPE)

Refers to personal protective equipment such as mask, goggles, gowns, and gloves designed and developed to protect individuals from disorders caused by contact with pathogens, chemicals, radioactive substances, and other hazard sources. In the case of pathogens, the primary objective of PPE is to prevent infection, and thus different PPE must be developed and prepared in accordance with infection routes and applications (e.g. screening, medical consultation, research, invasive procedures).

### ○ Medical institutions designated for infectious diseases

Medical institutions designated for specific infectious diseases, type I infectious diseases, and type II infectious diseases, based on the Law Concerning Prevention of Infection of Infectious Diseases and Patients with Infectious Diseases. They are responsible for inpatients with new infectious diseases, type I infectious diseases and type II infectious diseases.

- \* Medical institutions designated for specific infectious diseases: Medical institutions designated by Minister of Health, Labour and Welfare as responsible for inpatients with new infectious diseases, type I infectious diseases and type II infectious diseases
- \* Medical institutions designated for type I infectious diseases: Medical institutions designated by Prefectural Governors as responsible for inpatients with type I infectious diseases or type II infectious diseases
- \* Medical institutions designated for type II infectious diseases: Medical institutions designated by Prefectural Governors as responsible for inpatients with type II infectious diseases

### ○ Definitions and types of infectious diseases

[Type I infectious diseases]: Infectious diseases with extremely high risk from the comprehensive viewpoints based on infectivity and severity when infected (e.g. Ebola hemorrhagic fever, pest)

[Type II infectious diseases]: Infectious diseases with high risk from the comprehensive viewpoints based on infectivity and severity when infected (e.g. acute anterior poliomyelitis, diphtheria)

[Type III infectious diseases]: Infectious diseases with no high risk from the comprehensive viewpoints based on infectivity and severity when infected, but with the possibility of group

infection in specific occupations (e.g. enterohemorrhagic *Escherichia coli* infection (O157))

[Type IV infectious diseases]: Almost no human-to-human transmission, but possible infection from animals or objects requiring measures such as sterilization (e.g. hepatitis A, rabies)

[Type V infectious diseases]: Infectious diseases with possible influences to public health (e.g. measles, syphilis)

[Designated infectious diseases]: Known infectious diseases that are not classified into type I to III, but require measures similar to those against type I to III

#### ○ Beds for infectious diseases and pneumonia

Beds are classified into those for general, recuperation, psychiatric patients, infectious diseases, and pneumonia. Beds for infectious diseases are for inpatients with type I, type II and new infectious diseases stated by the Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections, while beds for pneumonia for pneumonia inpatients.

#### ○ Negative pressure beds

Beds for prevention of the spread of pathogenic agents to outside by reducing inside pressure in order to prevent in-hospital infection

#### ○ Institutions designated for notification

Hospitals or clinics that are required to notify age, sex etc of patients or deaths when diagnose patients with type V infectious diseases, or conduct autopsy

#### ○ Polymerase Chain Reaction (PCR)

A method to multiply DNA greatly using polymerase (an enzyme related with DNA replication) and primer; this method is commonly used in pathogen detecting tests, because it can detect even minute amounts of DNA. In the case of influenza viruses, RT-PCR method using reverse transcriptase (RT) is used, because influenza viruses are RNA viruses and require conversion into DNA before PCR.

#### ○ Antiviral drugs

Drugs that alleviate symptoms of influenza by specifically inhibiting the multiplication of influenza viruses; Neuraminidase inhibitor is a type of Antiviral drug that restrains the multiplication of influenza viruses.

#### ○ Pre-pandemic vaccines



Vaccines manufactured from viruses isolated from birds to human infection patients or birds, prior to the outbreak of pandemic (new) influenza viruses (The present vaccines are produced using an H5N1 subtype.)

○ Pandemic vaccines

Vaccines manufactured from viruses that cause humans to human infection when the pandemic actually occurs, or those having the same antigenicity as the above

○ Reforming facilities

General term for prisons, juvenile corrective institutions, detention centers, juvenile reformatories, juvenile classification centers, and women's guidance homes

Prisons and juvenile correction institutions are facilities that mainly accommodate and treat prisoners, while detention centers are facilities that accommodate those under detention whose criminal trial has not been completed.

Juvenile reformatories mainly accept minors sent from family courts that require supervision, while juvenile classification centers are facilities for minors sent from family courts whose possibilities of rehabilitation should be observed.

Women put into custody for the violation of Anti-Prostitution Law are sent to women's guidance homes.

These reforming facilities are under the control of Ministry of Justice, and under the instruction and direction of Correction Bureau, Ministry of Justice and correction districts, local divisions located in 8 places.

○ Risk communication

Sharing information on the risks that surround us between the administration, local residents and other stake holders, promoting mutual exchange of information and opinions.