

Section 3

Performance of adequate surveillance

1 Surveillance System

(1) Domestic Surveillance System

Act of grasping epidemic situation of infection including influenza is called “surveillance”, which is classified into the following three:

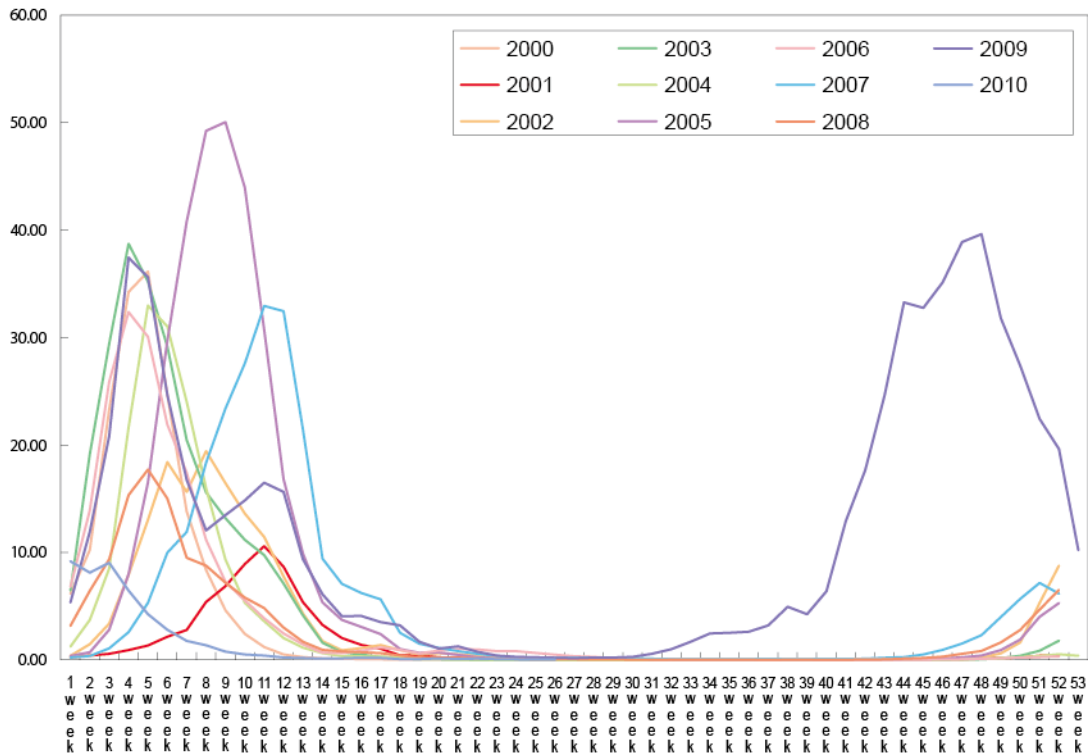
- ① the one for accurate grasping of overall epidemic outbreak behavior,
- ② the one for early detection of situation of infection spread,
- ③ the one for watching the extent of serious complications in patients and changes in virus properties,

all of which are conducted at National Institute of Infectious Diseases under the Ministry of Health, Labour and Welfare (partially shared with Headquarter Office for Promotion of Measures against novel influenza in the Ministry of Health, Labour and Welfare)

1) the surveillance for accurate grasping of overall epidemic outbreak behavior

Through infection surveillance works of the Ministry of Health, Labour and Welfare, National Institute of Infectious Diseases is grasping every weekly number of patients who received medical examination at about 5,000 (about 3,000 pediatric departments and 2,000 internal medicine departments) fixed point medical facilities for influenza. This work is aimed at grasping behavior of not only novel but also seasonal influenza. As shown in Chart 1-3-1, influenza outbreak behavior can easily be compared with former ones. Additionally, the map of influenza epidemic level shown in Chart 1-4-1 was made on the basis of data grasped through this surveillance.

Chart 1-3-1 The comparison of behavior in weekly outbreak during the past 10 years (influenza)



2) The surveillance for early detection of situation of infection spread

The surveillance for this purpose was, at the onset of novel influenza, engaged in grasping total number for detecting the beginning of infection spread to block infection. However, due to the revision on 19 June of “Guidelines for Securement of Medical Services, Quarantine and Request for Temporary Closure of Schools and Childcare Facilities” the aim was gradually revised into the prevention of large-scale outbreak and serious complications in high-risk patients by early detecting mass infection and accurately grasping infection situations (Chart 1-3-2. For background of revision see Section 2. 1(2)②).

Specifically, before the revisions the development of novel influenza was to be confirmed on individual basis by PCR test , however, after the revisions PCR testing shall no more be asked of all when multiple cases were detected in mass in institutions including schools. Positive cases in the PCR test shall be reported as "collective cases"(cluster surveillance).

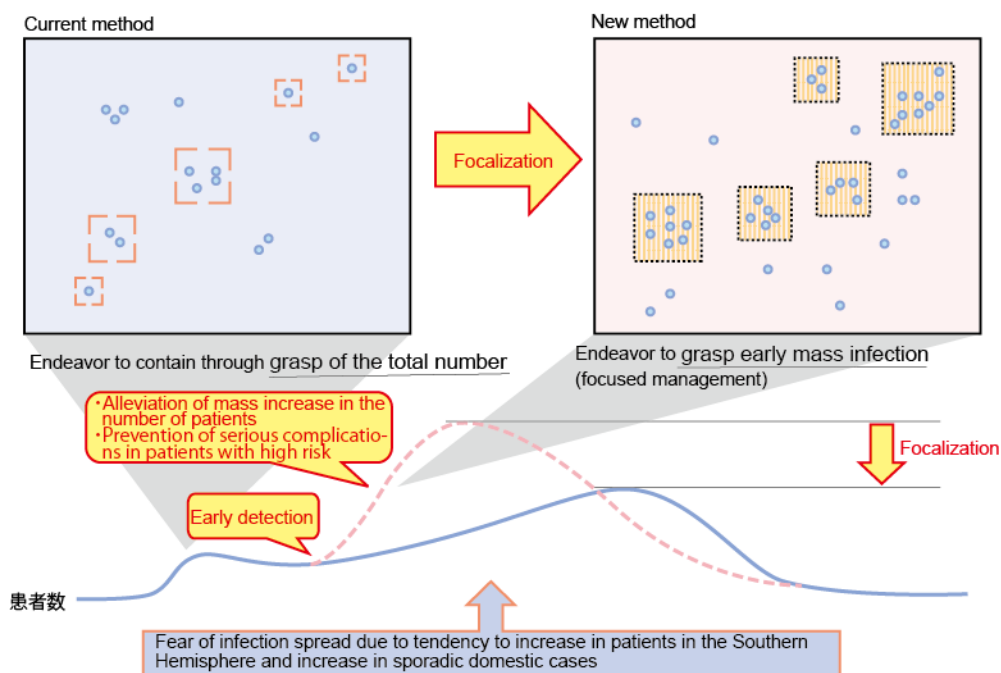
3) the one for watching the extent of serious complications in patients and changes in virus properties

Initially, as regards the development of novel influenza, every case was put to PCR testing, which shall be limited to confirmation of mass outbreak described at 2) and the following two occasions: ① when the test is to be applied to inpatient (seriously ill), ② When about 500 fixed points (outpatient medical institutions) nationwide conduct the test to watch change in virus properties.

After arrangement of gathered results of tests in ① and ②, since the end of July 2009 we started to report and announce “cases of detection of anti-influenza drug resistant virus”

or “cases of mass outbreak of novel influenza” together with fatal cases at any time while packaged offer of information got underway about inpatient situations such as cases classified by basic diseases, cases ending in acute encephalopathy or cases of respirator use etc.

Chart 1-3-2 About future surveillance system



Extract from material presented by the national conference of section chiefs in charge of Novel Influenza(June26, 2009)

* 1 PCR, abbreviation for polymerase chain reaction, is a technique for amplifying genes. Identification of the type of genes existing in given specimen by amplifying an extremely small quantity of them with the aid of PCR is called PCR test. Besides virus test, it is applied in various fields.

(2) International surveillance/information-sharing system

1) Measures taken by WHO

Current management for novel influenza (A/H1N1) were started in earnest by WHO announcement on 24 April (Switzerland Time), and with the ongoing socioeconomic globalization accompanied by massive and swift transportation of people and goods, which in turn is globalizing infection epidemic, international cooperative system centering around WHO is becoming all the more important.

WHO is an international institution adopting as a goal “ for all people to attain the highest possible level of health” (Chapter 1), it is engaged mainly in (1) general coordination of medical information, (2) direction and coordination international health services, (3) provision of technical support to each country in strengthening health services, (4) encouragement and promotion of eradication of infectious and other diseases, (5) promotion and direction of research in health sector, (6) development and improvement of international standard for biological medicines, their analogical products and foods.

Preventive measures for infection including novel influenza are one of major management of WHO. WHO is not only offering timely information about worldwide epidemic situation through gathering and analysis of information from government of each country and local offices etc. as well as information sharing and opinion exchange with specialists of each country, but also is endeavoring to provide government of each country with advice and technical support or construct international cooperative system with other international institutes and global enterprises. Japanese Government is aiding WHO activities financially as well as in human resources.

Of WHO activities, the surveillance (grasping of infection situation) based on information from government of each country is one of its most important management. Chart 1-3-3 is a map showing the process grasped by WHO of international epidemic spread of novel influenza, in which it can be followed that novel influenza first occurred in USA/Mexico, then in addition to the two countries spread mainly to such countries in

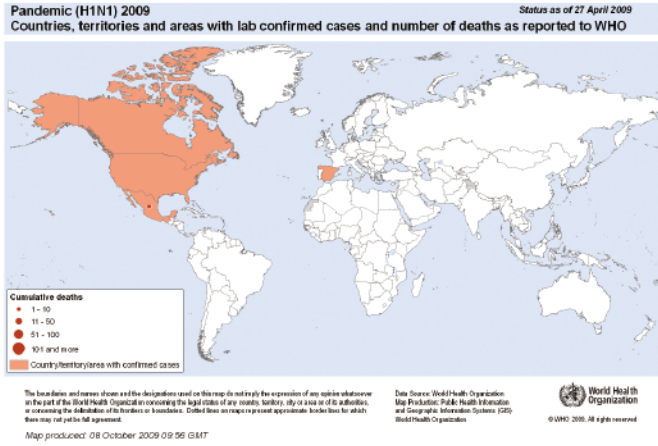
the southern hemisphere faced with winter as Argentina, Chili, Uruguay, Brazil, Australia and New Zealand etc. until worldwide pandemic. As in the revision of “Guideline for Securement of Medical Services, Quarantine and Request for Temporary Closure of Schools and Nursing Facilities” in June, such information is well utilized in constructing preventive measures for novel influenza in Japan.

Reflecting upon the emergence of S A R S (Severe Acute Respiratory Syndrome in 2003 etc., WHO substantially revised International Health Regulation adopted in 1969. This revision not only obliges the government of each country to announce to WHO within 24 hours all phenomena including novel influenza that can become a threat to international public health but also rules the establishment of counter for domestic communication (in Japan: Health Sciences Division, Minister’s Secretariat, the Ministry of Health, Labour and Welfare). Through the management of currently occurred novel influenza (A / H1N1) outbreak, revised International Health Regulations are evaluated to have been given the first trial of public health crisis affecting multiple countries*². Hereafter also Japan will, in accordance with International Health Regulations, pursue swift provision and gathering of information, and international knowledge sharing and cooperative management.

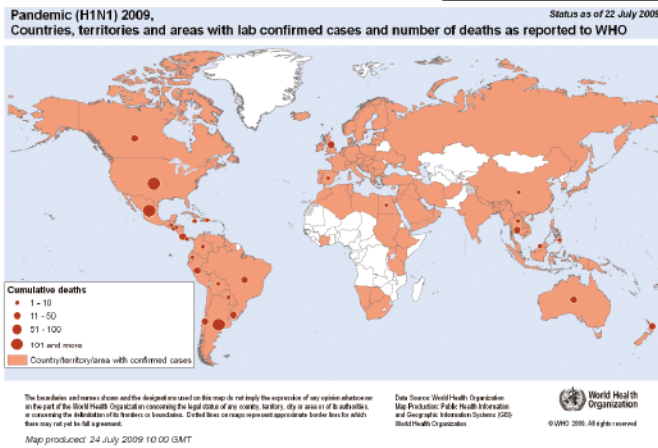
*² “Summary report of a High –Level Consultation : new influenza A(H1N1)”, Geneva, 18 May 2009 (WHO)

Chart 1-3-3 Worldwide expansion of Novel Influenza
(from the website of WHO (World Health Organization))

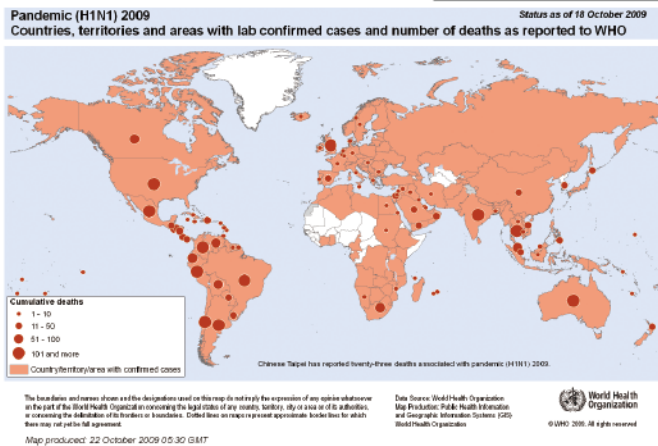
As of April 27, 2009



As of July 22, 2009



As of October 18, 2009



2) Construction of regional cooperative system

As national management of the new type influenza, along with the international cooperation through WHO also highly important are bilateral and regional cooperation, especially the cooperation with Asian countries which are regionally adjacent and closely related through human and material exchange. As for Japan, China and Korea, since 2007 public health ministers (in Japan, the Minister of Health, Labour and Welfare) have gathered together to exchange views holding “The Tripartite Health Ministers Meeting”, and at its third meeting held in Tokyo, measures against the new type influenza was also taken up for discussion. In the joint statement after the meeting, having confirmed the progress in and efficiency of triple cooperation since the previous meeting (November 2008) and then reflecting upon the outbreak of novel influenza (A/H1N1), they confirmed the importance of continuing information sharing of each country’s management situation and information on tests as well as of continuing the cooperation linked up with national institutions and Asian/Pacific countries (Chart 1-3-4). At the concurrently held meeting between China and Korea also information was exchanged on preventive measures for novel influenza (for the note of strengthening the exchange/cooperation in food safety sector among the three countries see Part 2, Section 10, 4 (2) 2) ② (p. 378)).

Chart 1-3-4 The Joint Statement of the 3rd China-Japan-Korea Tripartite Health Ministers Meeting (a tentative translation) (excerpt)

I The novel influenza

Based on the Joint Statement of the first China-Japan-Korea Tripartite Health Ministers Meeting, the note of cooperation in joint management of the novel influenza signed on April 8, 2007 among the Ministry of Health of the People's Republic of China, the Ministry of Health, Labour and Welfare (Japan) and the Korean Ministry for Health, Welfare and Family Affairs (hereinafter collectively referred to as participating countries), and the joint action plan for joint management of the novel influenza signed at the Second Tripartite Health Ministers Meeting, the participating countries have thus far strengthened joint management of the novel influenza and conducted intensive activities.

With the aim of promoting prevention of the novel influenza and management tools, and extending cooperation to each of Asian countries, the participating countries conducted workshop on the novel influenza in Fukuoka City in March 2009 and in Manila City in September in cooperation with WHO Western Pacific Regional Office. Additionally, through points of information sharing (focal points) they conducted close sharing of epidemiological and test-associated information on the novel influenza H1N1, which worked effectively.

Reflecting upon the outbreak of the novel influenza H1N1, the three ministers reconfirmed that the joint management of the novel influenza by the participating countries are important for the improvement in preventive measures for the new type influenza in Asia, and that it is also important to continue to promote sharing of information on the situation of management of the novel influenza and on the test for antiviral drug resistance etc. in cooperation with not only the above mentioned but also the CDC of the participating countries, and to endeavor to minimize the damage of the novel influenza and protect public health through mutual cooperation and exchange on the basis of cooperation with WHO Western Pacific Regional Office, Asian/Pacific countries including ASEAN.

