Part 2

Measures for the current political issues

In part 2, as a part of annual report, charts and graphs etc. are used to help easy understanding of how the Ministry of Health, Labour and Welfare manages various current political issues.

First, for ensuring peace and security in life, the first section features crisis management measures concentrated on novel influenza (A/H1N1) which became epidemic since 2009. This is naturally an emergent task for administration of health, labour and welfare, but has an important influence on national life and economy being serious problems concerning basis of existence for the society.

And in chapter 2, a new concept of "participatory social security (positive welfare)" is defined and the present results of discussion on what it should be are shown followed by description of measures taken for respective political issues.

Chapter 1 State measures for crisis management – concentrated on novel influenza (A/H1N1)

Section 1 The property and features of novel influenza (A/H1N1)

1. What is new type influenza?

Influenza, infectious disease caused by influenza virus, is classified into three types: A, B and C*[1]. Type A, which includes novel influenza (A/H1N1) that was epidemic in 2009-2010, is classified into multiple subtypes based on the property of the proteins on the surface of virus. Type A virus was originally an avian virus, can theoretically have 16×9 subtypes, some of which are known to infect not only humans but birds, horses, pigs etc. For example, among influenza viruses which have been epidemic every year, the one called the Hongkong-A type is A/H3N2, and the Soviet type – A/H1N2. And the "avian influenza", which has caused multiple outbreaks in Asian countries since 2003 and seriously damaged our poultry industry, is H5N1. Thus influenza viruses with new features are being formed from variations occurring during proliferation in hosts or by exchanging genes with other types of influenza virus.

Influenza, including the Hongkong-A type or the Soviet type, has gradually altered its property every year (antigenic variation) being epidemic from winter till early spring almost every year and also called seasonal influenza. But the new type influenza (A/H1N1) is distinct from the seasonal influenza (with distinct genetic structure). Though the symptoms of novel influenza (A/H1N1) are largely similar to that of the seasonal influenza and severe or fatal cases were reported less than was feared initially, it is quite probable that another "novel influenza" will arise necessitating more intensive management than the current ones. And as for the avian influenza (H5N1), there remains a possibility that it turns human infectious leading to a worldwide epidemic (pandemic) someday.

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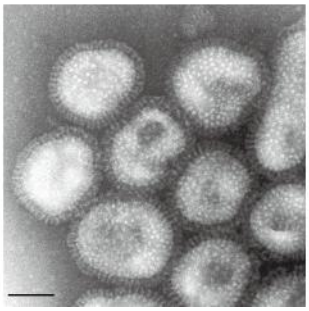
*1. Virus, unlike bacteria, lacks its own proliferation mechanism, but this is a pathogen which can invade cells of organisms including human (“host”) and proliferate by making the cells replicate itself thereby causing various infections. In 1933 the first human influenza virus was isolated which showed that virus was responsible for influenza. Afterwards such viruses were identified that has distinct property of protein component but similarly cause influenza. The virus isolated in 1933 is designated type A, and subsequent ones – types B and C.

Chart 1-1-1 Negative stained electron micrograph of influenza A/H1N1 pdm (Novell Influenza) virus



While the Ministry of Health, Labour and Welfare is endeavoring to take right measures in right time by maintaining tight contact with and information gathering from World Health Organization (WHO) and government of every country etc., we

should be grateful to every citizen if he or she would correctly understand information on epidemic situation and then manage in accordance with home or social life involving communities, occupations, schools etc.

2. The feature of current novel influenza (A/H1N1) virus

The symptoms of the novel influenza which has been epidemic this time are featured by a sudden high fever, cough, sore throat, malaise and additional nasal discharge/snuffle plus headache etc.

Though most persons who were infected with it and taken ill recovered from mild cases, some of those with chronic diseases are at high risk of developing serious complications*[2]. At epidemic time, specifically persons with the chronic diseases shown in Chart 1-1-2 should consciously prevent infection themselves by enforcing hand washing and avoiding crowd, but people around them also should take the trouble to protect them from infection.

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*2. "Developing serious complications" here refers to such cases when inpatients are put on a respirator, diagnosed as having acute encephalopathy or hospitalized in ICU. And when patients are simply hospitalized, the term "developing serious complications" is not used to express the extent of symptoms in patients with new type influenza. However, colloquial language can permit the use of "developing serious complications" when hospitalization is necessary, therefore attention should be paid to informations.

Chart 1-1-2 Basic diseases with high risk for developing serious complications

- Chronic respiratory disease
- Chronic heart disease
- Metabolic disease including diabetes mellitus
- Renal dysfunction
- Immunodeficiency caused by oral administration of steroid

(expecting mother, infant, the aged etc. have risk for serious complications even when they have none of the abovementioned basic diseases)

3. The epidemic situation of novel influenza (A/H1N1)

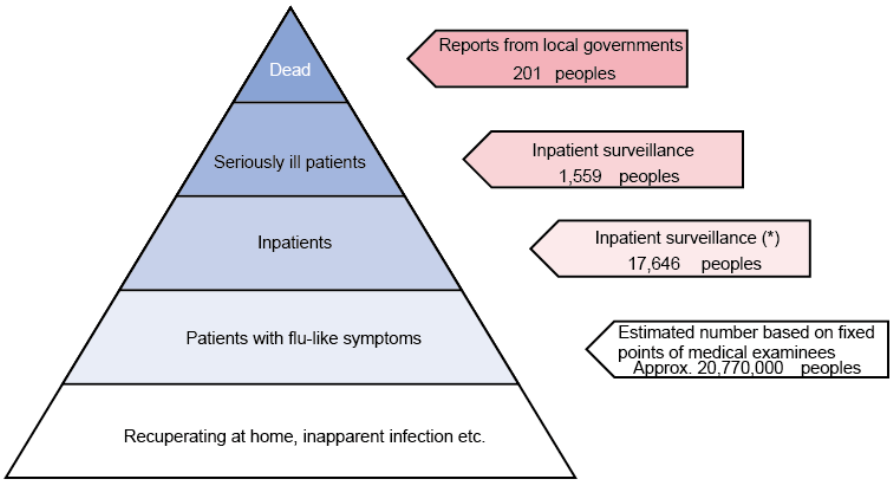
(1) Number of the people who received medical examination, etc.

According to the tracking of epidemic outbreak behavior, the number of those who received medical examination for the novel influenza (A/H1N1) during 6 July 2009 and 3 July 2010 is estimated to be about 20 millions 770 thousands (about every 6 the citizen; this is the number of patients who were taken ill and received medical examination at medical institutions and excludes those who are recuperating at their home without receiving medical examination or those infected but not taken ill). The number of hospitalized patients during 7 July 2009 and 30 March 2010 is estimated to be 17,646 (total of reported cases: every thousandth person who received medical examination). And seriously ill patients (those who were put on a respirator / diagnosed as having acute encephalopathy / hospitalized in ICU) during 27 July 2009 and 4 July 2010 totaled 1,648 (every tenth inpatient).

According to the reports from local governments, as of 4 July 2010 (every hundred thousandth person who received medical examination) out of the patients diagnosed as having novel influenza (A/H1N1) died (Chart 1-1-3).

Chart 1-1-4 is a graph showing the rate of receiving medical examination and the rate of hospitalization per hundred thousand people for each age bracket during 3 Aug. 2009 and 16 March 2010. In age brackets 5-9 and 10-14, about 80 % of them are estimated to have already received medical examination at medical institutions by March. This is based on an overestimation and should be regarded as a mere standard, however, considering an addition of them, those who are recuperating at their home without receiving medical examination and those infected but not taken ill, large number of minors is estimated to have already been infected with novel influenza (A/H1N1).

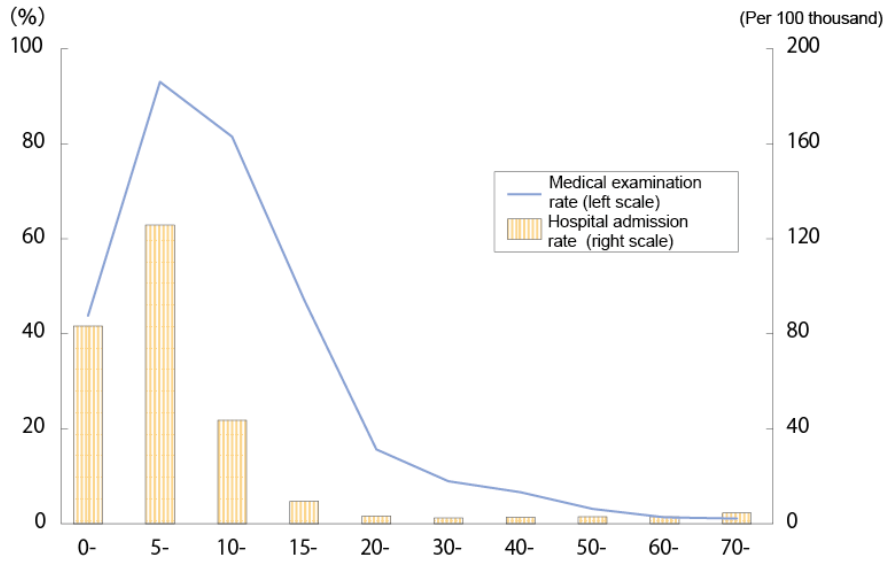
Chart 1-1-3　Epidemic situation of Novel Influenza (A/H1N1) (July, 2010)



As of July 4, 2010 / Ministry of Health, Labour and Welfare

＊Due to conclusion of inpatient surveillance at the end of March 2010, the number of reported inpatients includes those no later than March.

Chart 1-1-4　Age specific medical examination rate and hospital admission rate (per age-group population)



Reported from August 3, 2009 to March 16, 2010 / The Ministry of Health, Labour and Welfare

※Due to conclusion of inpatient surveillance at the end of March 2010, the figures are based on reports delivered no later than March.

(2) Situation of each underlying disease

Chart 1-1-5 is a graph where inpatients are divided into two age brackets: under 15 years old and not younger than 15 years old, and then according to the prevalence rate of every underlying diseases. In the group under 15 years old, the high rate of "No underlying diseases" is distinct.

And Chart 1-1-6 is a graph where seriously ill patients are divided into the same age brackets and then according to the prevalence rate of every underlying diseases. In comparison of the two charts, those over 15 with diabetes, for example, account for 10.2 % of inpatients while they account for 15.9% of seriously ill patients. This suggests a relatively high tendency of person with some underlying diseases to develop serious complications.

(3) On fatal cases

In Chart 1-1-7, the 198 fatal cases reported from local governments to the Ministry of Health, Labour and Welfare by 30 March 2010 are divided into age brackets. Fatal cases are frequent in forties and fifties after under ten, and less than half other age brackets in teens where many people received medical examination. Fatal cases in inpatients are, however, higher in forties and over than in under 20.

(4) Time series behavior

Chart 1-1-8 shows the weekly change in numbers of the people in each age bracket who received medical examination since the onset in August 2009.*[3] In October the infection quickly spread to children and presumably a month later to infants, then to those over 15.

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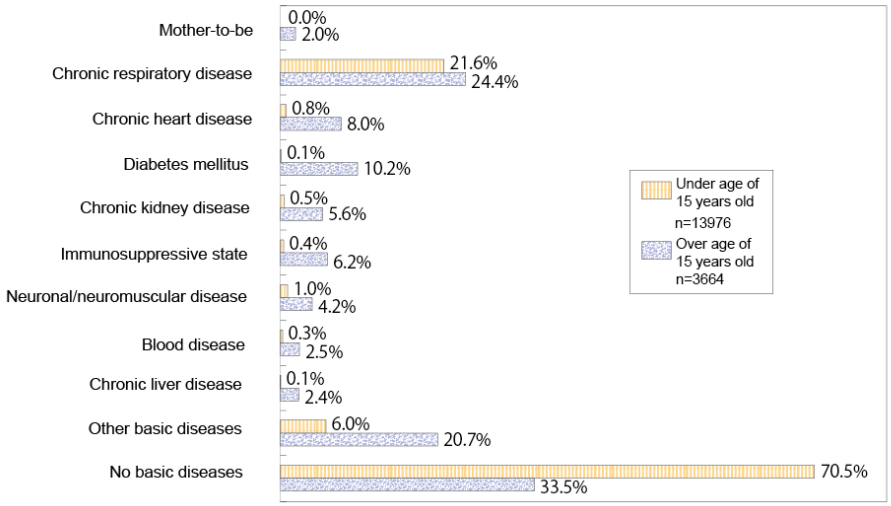
*3. As for tracking novel influenza, we switched from tracking all cases on individual basis at the outbreaks to detecting mass infection at its early period (cf. Section 3. 1 (1)). At the same time we have been tracking nationwide tendency of outbreaks by switching from counting all real cases of outbreak which was carried out till 24 July to tracking via health care centers the outbreaks of mass infection reported from doctors, schools and social welfare facilities etc. which started in August. The estimation of the numbers shown here of the people who received medical examination was conducted by the Ministry of Health, Labour and Welfare with a grip of such behavior of outbreaks. Additionally, patients totaled 5,038 at 24:00 July 23 when the final counting of all cases was conducted.

While the number of reported influenza cases per fixed point has stayed over 1.00 – an indicator of nationwide onset since August 2009, seven months later, in March 2010 it fell below 1.00 with no health care center points above alert/warning levels. And then the message from the Minister officially announced on 31 March showed an understanding that situations have calmed down at the present time. Considering, however, the fact that the Spanish Flu (confirmed afterwards to have been caused by influenza type A virus), which raged worldwide 1918-1919, did not become a critical issue in its first wave owing to light symptoms whereas it did cause serious damages in subsequent waves, we should bear in mind that situations are still going to be unpredictable and a second wave may arrive at any moment.

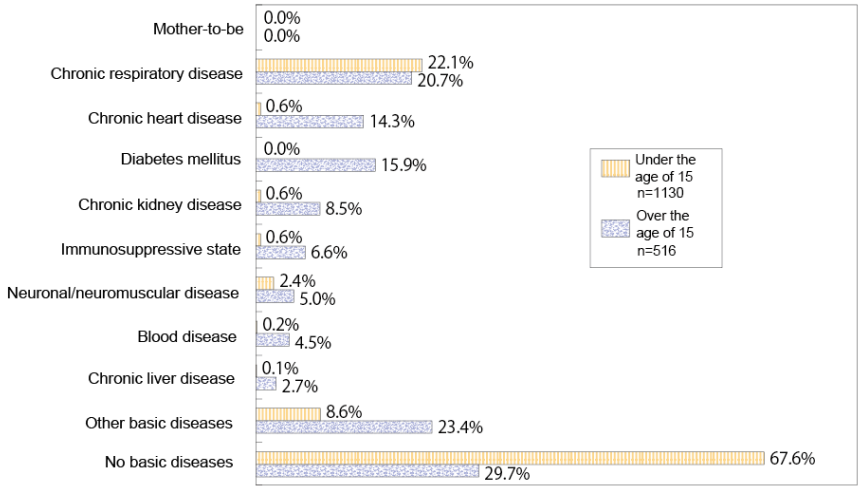
Chart 1-1-5 Disease-specific morbidity rate of basic diseases in inpatients by age-specific group (partially overlapped)



Reported until March 23, 2010 / The Ministry of Health, Labour and Welfare

□Due to conclusion of inpatient surveillance at the end of March 2010, the figures are based on reports delivered no later than March.

Chart 1-1-6 Disease-specific morbidity rate of basic diseases in seriously ill patients by age-specific group (partially overlapped)



※ Reported until March 23, 2010 / The Ministry of Health, Labour and Welfare
The figures are based on reports delivered no later than March for easy comparison with Chart 1-1-5

Chart 1-1-7 Age-specific deaths per 100 inpatients

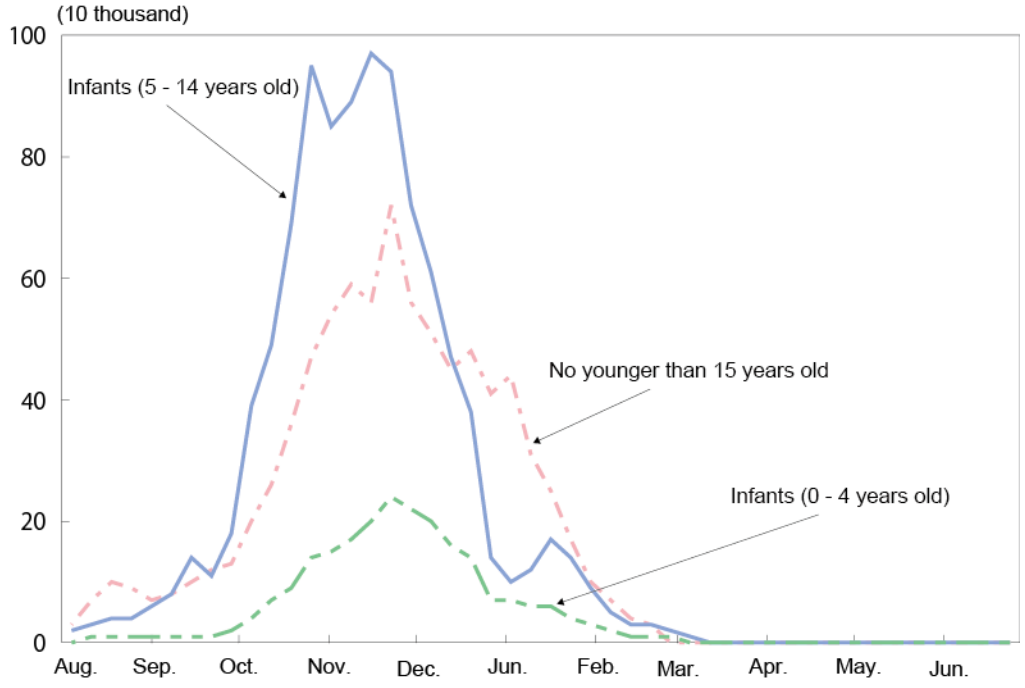
Age	Deaths	Number of reported cases by inpatient surveillance	Deaths per 100 inpatients
0－4	20	4,383	0.46
5—9	13	7,048	0.18
1--14	5	2,545	0.20
15－19	3	555	0.54
20－29	11	443	2.48
30－39	14	408	3.43
40－49	31	406	7.64
50－59	31	483	6.42
60－69	25	474	5.27
70－	45	895	5.03
Total	198	17,640	1.12

Reported until March23, 2010 / The Ministry of Health, Labour and Welfare

* Due to conclusion of inpatient surveillance at the end of March 2010, the figures are based on reports delivered no later than March.

*The deaths reported to The Ministry of Health, Labour and Welfare totaled 201 as of July 4, 2010.

Chart 1-1-8　Age-specific change in estimated number of medical examinees



Reported from August 3, 2009 to July 4, 2010 / The Ministry of Health, Labour and Welfare