

Expert Meeting on the Novel Coronavirus Disease Control
Analysis of the Response to the Novel Coronavirus (COVID-19)
and Recommendations (Excerpt)

March 19, 2020
[Provisional Translation]

1. Measures taken by Japan

It is the view of this Expert Meeting that, at this point in time, the existing policy of maximizing the effectiveness of outbreak prevention needs to be continued while minimizing the impacts on socio-economic functions.

To that end, we believe it is necessary to maintain, strengthen as required, and swiftly implement the three-pronged basic strategy, namely 1) early detection of and early response to clusters; 2) early patient diagnosis and enhancement of intensive care and the securing of a medical service system for the severely ill; and 3) behavior modification of citizens.

It is imperative to continue taking measures to respond to cases of the novel coronavirus entering Japan from abroad, as well as the occurrence of cases in a sporadic pattern that could not trace the links between clusters, as described below.

It has become important to pursue containment by keeping the chains of infections at a small scale and controlling the spread in respective areas so as to end them.

2. Current state of counter-cluster measures

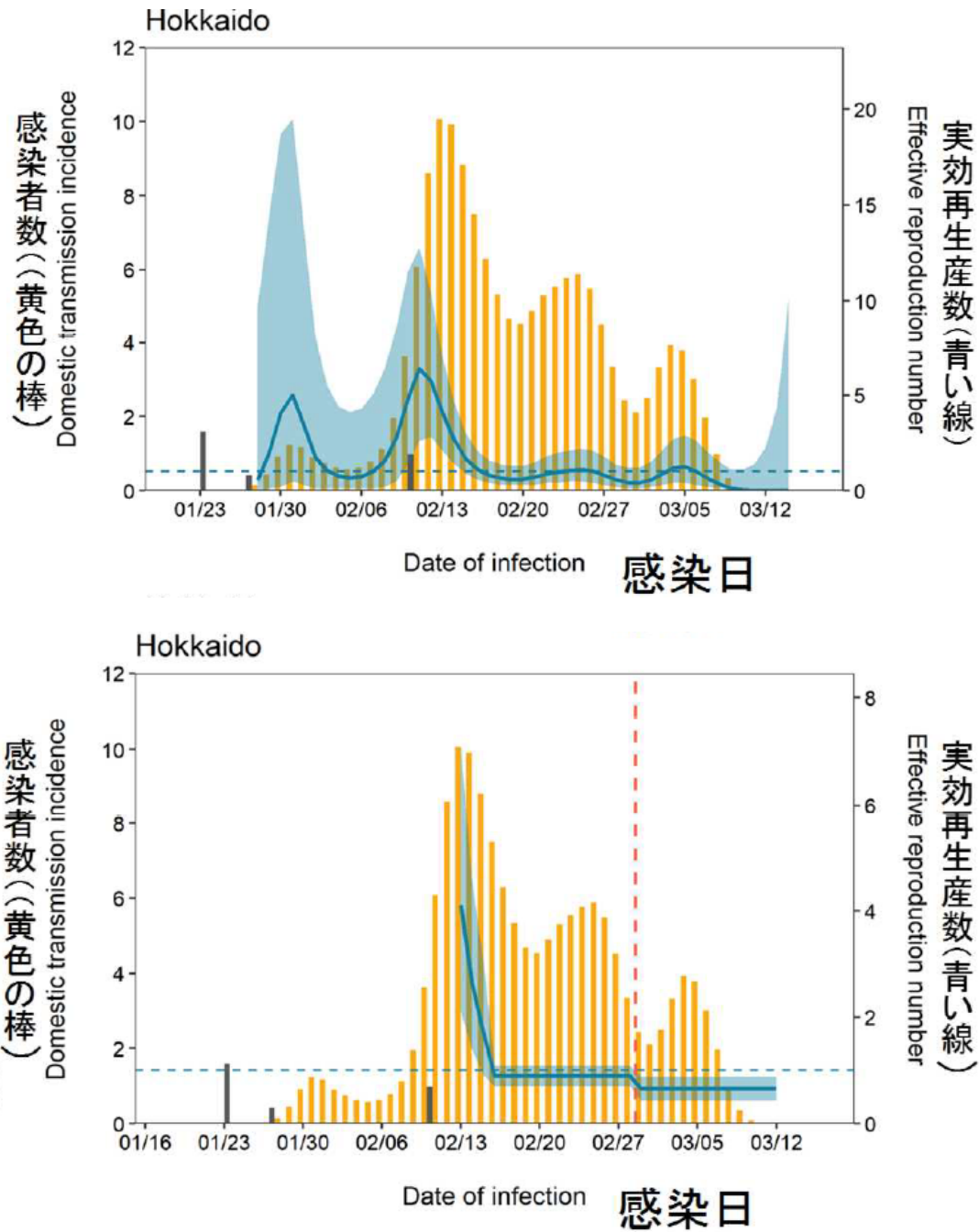
In his statement made on March 13, 2020, the Director-General of the World Health Organization (WHO) highly commended the various measures implemented in Japan, based on a strategy of “early detection of and early response to clusters.”

3. Infection situation in Hokkaido and effectiveness of measures taken

The effective reproduction number (the average number of secondary infections produced by one infection at a particular time in a particular population where there is an infectious disease outbreak) over two periods of time of the same duration, before the state of emergency and during it (February 16-28 and February 29-March 12) is estimated to have

declined from 0.9 (95% confidence interval: 0.7-1.1) to 0.7 (95% confidence interval: 0.4, 0.9).

Figure 1 (Excerpt). Estimated Effective Reproduction Number by Date of Infection (Hokkaido)



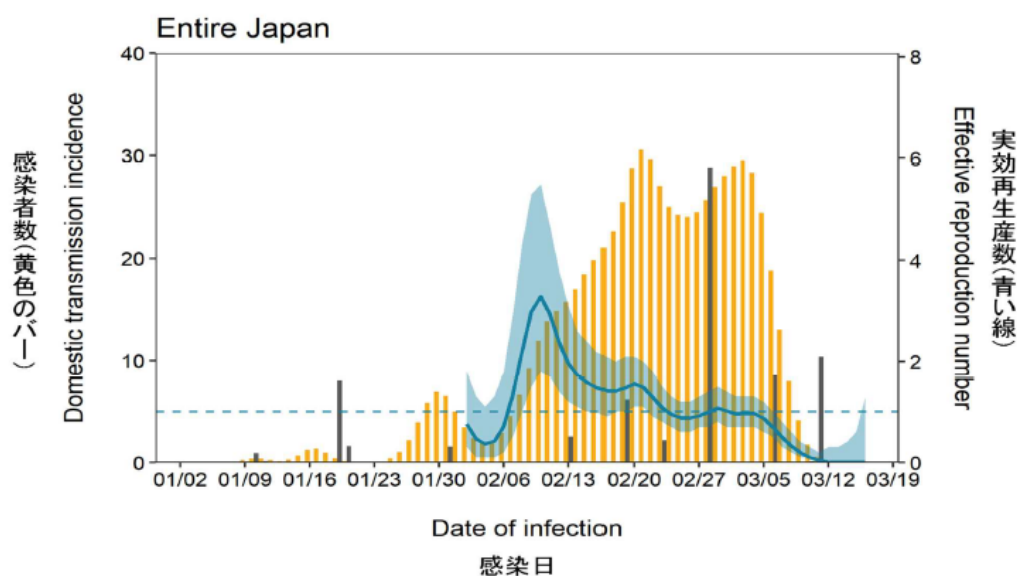
According to the assessment of the Expert Meeting, the increase of newly infected patients in Hokkaido has been controlled to a certain extent. However, we are also of the view that there is no clear sign of the containment of the outbreaks, and the situation continues to warrant concern. We assess that the behavior modification among the citizens of Hokkaido, as well as the swift implementation of measures by business operators, prompted by the declaration of a state of emergency by the Governor of Hokkaido, has had a certain impact in terms of preventing rapid spread of the outbreaks.

4. Current situation of infection in Japan and effectiveness of measures taken*

(1) Infection situation in Japan

The number of new cases of infections, excluding Hokkaido, is gradually increasing, primarily in urban areas. The effective reproduction number continues to fluctuate around 1 but has remained continuously under 1 since early March. It is required to continue to closely monitor the trend and to implement the necessary measures expeditiously depending on the situation.

Figure 2. Estimated Effective Reproduction Number by Date of Infection (Entire Japan)



(Number of new cases of infection by estimated date of infection (Left vertical axis, bar chart; yellow bars represent the domestic transmission incidence, while the gray bars represent the imported transmission incidence) and the estimated effective reproduction

number based thereon (number of secondary infections caused by one infection, blue line). The blue line represents the maximum likelihood estimate while the light blue shading represents the 95% confidence interval. Bottom right: The estimated effective reproduction number assuming, as the constant, two periods of time of the same duration, before and after the declaration of a state of emergency (February 16-28 and February 29-March 12).)

There has been a sporadic emergence of areas with an increase in the number of infections for which the link is not identified.

If there is an increase in the number of infections for which the link of transmission in clusters is not identified, an explosive spread of infections may occur in any area at some point, thus resulting in an increase in patients with serious symptoms.

The situation of infection in Japan continues to be holding steady, but there appears to be a spread of infection in some regions. As seen in the cases of other countries, if there is a continuous increase in the number of infections for which the link is not identified in a certain area and such areas spread nationwide, there may be a massive-scale of outbreak with an explosive spread of infections, starting from a particular area.

*Relative ratio of infections for which the link is not identified in each prefecture as announced between February 27 and March 4, 2020, between March 5 and March 11, 2020, and between March 12 and March 18, 2020 (the ratio of each prefecture, assuming the total number nationwide to be 100%, for each of the aforementioned periods). Among such infections, those for which the link is identified by active epidemiological investigation will be removed from future statistics. Please be aware that these numbers are subject to fluctuation.

(2) Effectiveness of various domestic measures

In Japan as a whole, the number of new infections has decreased slightly due to the appropriate modification of the behavior of citizens. The impact of respective measures, such as refraining from holding large-scale events, temporarily closing schools, or the

subsequent modification of citizens' behavior caused by such changes, may not be specified. Nevertheless, it can be said that these efforts have been effective.

(3) Patients who develop severe symptoms

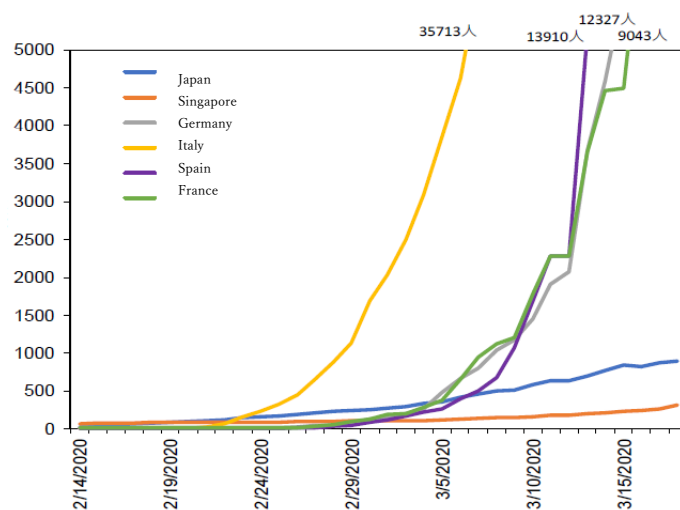
It is the view of this Expert Meeting that it necessary to be fully aware of the possibility of an explosive spread of infections as has occurred in Europe and of the gravity of its ensuing impact on local medical service systems.

5. Outlook

The difficulty of this kind of disease control lies in the fact that even if an explosive increase of patients has begun, the sign of an explosive spread of infection cannot be detected beforehand. Furthermore, by the time we become aware of its occurrence, we could no longer be able to control.

Once an explosive spread of infection occurs, as seen in Europe, the local medical service system will fall into a state of collapse, and it may lead to the situation where we could not save lives we could normally save, let alone those from this infectious disease. That is why, in countries such as Italy, Spain and France where an explosive increase in the number of patients has occurred (see Figure 5), there has been no choice but to take forceful measures such as so-called “lock-down” for several weeks, including closing off cities, enforcing curfews, and closing all businesses other than those that provide daily necessities.

Figure 5. Accumulated Number of Case by Country



If a large number of citizens and business operators do not make maximum efforts to reduce contact with other people, nor avoid places where the three conditions could occur simultaneously, there could be the continuous emergence of clusters created by people who are unaware of themselves being infected. This could lead to the formation of large clusters and chains of clusters, as has already been reported in several countries. If that is the case, one day, an explosive increase in the number of patients could occur.

(Recommendations, etc.)

1. Recommendations for the national and local governments

(1) Fundamentally strengthen counter-cluster measures

This Expert Meeting believes that it is necessary to strengthen counter-cluster measures fundamentally and expeditiously, and strongly requests that the government to put them in place as early as possible. We specifically recommend: i) securing personnel who support experts directing counter-cluster measures regionally; (ii) promoting enhanced regional collaboration among local governments; (iii) creating a system to share infection information obtained by local governments for conducting risk assessments in each area; and iv) providing public health centers with the necessary personnel and budget so that they can focus on implementing counter-cluster measures at a large scale.

(2) Request to Hokkaido and other local governments

It would become necessary to anticipate the possibility of implementing similar responses again in the future when need arises. Hokkaido's experience suggests that the messages and warning from leaders of local governments, in close partnership with the central government in sharing information, may lead to the modification of citizens' behavior and deliver certain results.

(4) Establishment of medical system which prioritize patients with severe symptoms

2. Message to citizens and business operators

(1) Refrain from activities in the places where the following three conditions were met simultaneously: (i) closed space with poor ventilation, (ii) crowded with many people and (iii) conversations and vocalization in close proximity (within arm's reach of one another).

- (2) Prejudice and discrimination against patients and people who have been in close contact with them

Any behavior that results in prejudice or discrimination against patients, people who have been in close contact with them, their family members, and medical personnel in charge of infectious disease control and provision of treatment as well as their families, is absolutely unacceptable.

- (8) PCR test

The capacity for PCR testing has been expanded. Necessary PCR tests should continue to be conducted in a timely manner.

- (9) Holding of large-scale events

Holding of large-scale events should be cautiously decided by organizers.