

The Pandemic & Japan

By Kazumasa Oguro

When the novel coronavirus spread globally in the spring of 2020, there were serious discussions about how to effectively control it. Now that the pandemic has calmed down to some extent today, we face the need to review how nations confronted this challenge to be well prepared for the next one.

As of the summer of 2024, the 11th wave of coronaviruses is still ongoing in Japan, although the impact on the lives of citizens is easing, as the proportion of fatal or seriously ill cases among those infected has decreased significantly from the initial level. However, the number of persons per medical institution infected with the coronavirus reported by selected medical institutions nationwide during one week, which is currently the only indicator of the number of infected persons released by the Japanese Ministry of Health, Labour and Welfare, has declined since May 2023 when novel coronaviruses were considered the same as influenza. The end of the pandemic seems to be in sight.

How did the leaders of Japan's medical experts confront this unprecedented virus in the history of mankind? How did the low mortality rate from this virus in Japan come about? Prof. Kazumasa Oguro of Hosei University, a member of the *Japan SPOTLIGHT* editorial board, interviewed Dr. Shigeru Omi, a leader of Japan's pandemic countermeasures and former chairman of the Subcommittee on Novel Coronavirus Disease Control, who in September 2023 published a book titled "1,100 Days of Conflicts: Records of Experts on the Novel Coronavirus Pandemic" (Nikkei BP) as an important lesson in preparing for future pandemics.

(Interviewed on Aug. 6, 2024)

Overall Assessment of Pandemic Countermeasures

Oguro: At the beginning of the novel coronavirus pandemic, there was a high degree of uncertainty, and the inadequacy of Japan's PCR system, for example, was sometimes criticized by the foreign media. In light of this situation, Japanese experts were collecting and analyzing epidemiological information to detect and respond to those clusters at an early stage. Citizens were being educated to avoid certain environments and behaviors that are prone to clusters. After that, you and others said you would do your best to reduce the fatality rate, and I see that an extremely low fatality rate was achieved

as a result. Looking back, how do you evaluate this point? I would like to hear your thoughts on it.

Omi: It is true that our PCR-testing capacity was low and Japan was unprepared for such a pandemic. Compared to other Asian countries and areas such as Taiwan, Singapore, and South Korea that were relatively well prepared for a pandemic, Japan was clearly underprepared. The reason for the preparedness of those countries was that South Korea and Singapore had various infectious disease outbreaks in the past, such as SARS, MERS, and the H1N1 influenza pandemic in 2009. By fully utilizing the lessons learned, they have been working quite seriously to strengthen their testing capacity, as you mentioned, or to digitize the most important medical and epidemiological information *(Photos)*. Though Japan had the same experience with a new strain of influenza H1N1, and also SARS, with

Photo: Prof. Hiroshi Nishiura of Kyoto University



Emergency Operations Center in Japan (left) and in South Korea (right)



relatively little damage, we learned much less from those diseases than these other nations. This might be why Japan was less prepared than other nations.

In 2009, when a new strain of influenza (H1N1) of pig origin broke out in Mexico, Japan was severely affected as well and a meeting was held to reflect on the situation. Dr. Ichiro Kanazawa, then president of the Science Council of Japan, chaired the meeting, and we examined the situation over a fairly long period of time. Government officials, medical personnel, and the mass media were also involved, and various recommendations were made to the government, in particular the Ministry of Health, Labour and Welfare.

These included the need to increase the capacity of PCRs, the need to digitize medical information, the need to clarify roles and responsibilities between the government and experts, and the need to discuss the appropriate risk communication. All of these themes were included in the recommendations at that time. However, unlike South Korea and Singapore, Japan hardly implemented those recommendations. Despite insufficient levels of preparation, the death rate was relatively low. I believe there were three major factors that accounted for low mortality.

One is the behavior of citizens. In the case of Japan, unlike in Europe and the United States, the government policy of urging citizens to control their behavior to mitigate infections was on a request basis, and there were no fines or other penalties for failure to comply. Nevertheless, with the high level of health literacy among Japanese people and peer pressure from their surroundings, they voluntarily cooperated with these unenforceable requests from the national and local governments.

The first declaration of a state of emergency was issued on April 7, 2020, but even before the declaration people, especially the elderly, had already been proactively changing their behavior taking account of information provided by the mass media.

And then, the state of emergency added to this behavioral change. Not only the elderly but also young people cooperated considerably with the requests for behavior change issued by the government. This was definitely one of the main reasons why there were fewer deaths.

Second, and this was the same in other countries, the medical personnel did their best under high stress, wearing protective

clothing and the very air-tight N95 mask every day while they themselves were also at risk of infection. Staff of public health centers also worked hard until they were exhausted. Japan's cluster-based approach is characterized by contact-tracing to find out where the source of infection is. This is not done by clinicians, but by staff of public health centers. The cluster-based approach worked very well, when the number of infected patients is small, but as the number increases, their workload becomes extremely heavy, making it impossible to rely only on the cluster approach to control infection. Given this, to control infection such measures as issuing a state of emergency came into the picture.

Because the pandemic lasted so long, I think there was prejudice and discrimination not only against the infected people but also against the medical personnel, who were initially the target of gratitude and praise. Because the pandemic was prolonged, there was a medical crunch, so we issued a number of key precautionary measures to control people's behavior. As a result, the anxiety of the public evident in the early stage of the pandemic was gradually turned into dissatisfaction and frustration, which was directed at medical personnel. People were saying, "The reason why medical crunches occur so frequently and behavior restrictions are repeatedly imposed is because the medical personnel are not doing their best."

Third was the repeated policy of "hammer and dance". Many countries, such as China, the United Kingdom, and New Zealand, implemented strong behavior restriction measures, such as lockdowns, in the early stages of the pandemic and continued them for a long time and all of sudden, all the strict restrictions were lifted to bring socio-economic activities to normal. In Japan, we modified the level of restrictions tailored to the level of strains upon medical institutions. When medical institutions were at impeding risk of collapse, we issued a state of emergency and the level of strains were eased and these restrictions were lifted. This is called "hammer and dance", which is one of the characteristics of Japan's response.

The number of deaths in the first wave was negligibly small compared to the eighth wave. The number of deaths had been steadily rising toward the eighth wave. Even though the fatality rate was decreasing, the number of deaths increased dramatically in the sixth, seventh, and eighth waves. As stated, the reason for issuing these strong measures was not necessarily due to the increased number of deaths, but rather to avoid a medical crunch. That is why in the early days including the first wave, when a very small number of medical institutions were involved in accepting infected persons, issuing a state of emergency was indispensable. In contrast, during the sixth, seventh and eighth waves when the number of deaths increased, no statement of emergency was issued because greater numbers of institutions were able to respond to the spreading infection and mortality without the need to issue a state of emergency.

As infectious disease specialists, we also thought that there should be a balance between infection control and socio-economic activities. However, if the healthcare system becomes tight and collapses, we cannot talk about balance.

It is my impression that for the three reasons I just mentioned, there were fewer deaths, and at the same time the three-year-average decline of GDP of Japan was almost at the same level with that of the West.

Coordination of Opinions Between Medical Experts & Economic Experts

Oguro: I believe there was guite a split in the debate between so-called economic experts and public health or medical experts regarding the policy response to the coronaviruses. From the standpoint of the economic experts, there was an argument that restoring the economy would be as important as avoiding a medical crunch and I think this led to the coordination of different views. As a result, the fatality rate was kept low and the economy was able to recover to a certain extent, but I believe there were things that went well and things that did not go well in the process of coordinating the opinions of public health or medical experts and economic experts. What do you think were the factors that contributed to the successful outcome, including lessons for the future?

Omi: Initially, the experts were only from the medical community, but in consideration of the socioeconomic impact it was discussed whether it would be better to include economic experts as well. Therefore, in July 2020, a subcommittee was formed that included people from the economy, society, the media, and local government.

In September 2021, the subcommittee began discussing whether it was time to consider the impact of the economic downturn as well as the infection on people's lives, and how to balance the two. Such opinions came from economic experts in particular. The subcommittee as a whole began discussions in the latter half of 2021 on the importance of not only controlling infections, but also how to restore the economy and society to normalcy.

From the very beginning of the pandemic, the goal of our countermeasures was set to minimize the level of infections as much as possible while minimizing the impact on society and the economy. Therefore, we were discussing how to achieve the balance. Some of the discussions were quite heated because of the different views, which I thought was healthy. The medical community expressed their views. The people in the economy voiced their opinions too. My role was basically to bring both sides together and reach a consensus.

Oguro: In discussing with the economic experts, I know there was some reconciliation of different opinions, but in hindsight was there anything that went particularly well among these two types of experts?

Omi: As I mentioned a while ago in September 2021, a person from the economy side expressed the opinion that since the lives lost to infectious diseases and the lives lost to unemployment were the same, we should consider both, not just one or the other, and this was very persuasive. I believe this created momentum to accelerate the discussion on the economy. Furthermore, in November 2021, with the vaccine now available, discussions on how to restore social life to normal accelerated considerably. Then in March 2022, economic experts showed the impact of strong restriction measures on the economy in terms of the unemployment rate, in numerical terms. This led to the need for more discussion on this point. In that sense, I think it was good that we included economic experts.

However, comparing the number of deaths between the first and eighth waves, the fatality rate decreased but the actual number of deaths increased toward the eighth wave. Although the fatality rate has decreased, the number of infected people has become very large, especially with the Omicron strain, so the absolute number of deaths was still increasing. Even if the fatality rate is reduced by a factor of 10, the number of deaths will increase by a factor of 10 if the infection rate increases by a factor of 100.

We in the medical profession agree with the urgent need for restoring socio-economic activities. No one disagrees with this. However, medical experts had to make it clear why the number of deaths is increasing despite the fact that the fatality rate is decreasing. But inevitably, economic experts will say that because the fatality rate is low, economic activity should be restored. We medical professionals understand the economists' point of view. However, as medical professionals, our view was that we must consider three factors: lethality, infectivity, and impact on medicine and society. At that time, we in the medical profession argued that although the coronavirus was becoming a common disease, partly in terms of the case-fatality rate, it had not yet become one completely. That is why we said that the transition of coronaviruses to Category 5 infectious diseases, the same category as for influenza, should be done with a stepwise approach and caution. There was guite a heated debate over these different positions.

The virus can escape the immune system, and as is still the case today, and there are problems with the sequelae of the disease named long Covid. So the medical experts argued that although it is indeed gradually becoming a normal disease, it would be giving the public the wrong impression that this disease has become completely ordinary. Despite the different positions of medical and economic experts, in August 2022 medical experts and economic experts cooperated together and called for the need to gradually change the response tailored to the characteristics of the Omicron strain, in order to return the social economy to normalcy.

Division of Roles Between Experts & Government

Oguro: I believe that discussion of these countermeasures against the pandemic has posed a number of issues, including how to ensure that the scientific knowledge of experts is properly understood by the public, including politicians, the division of roles between politics and experts, and the ideal risk communication.

Omi: It is extremely important to talk about the division of roles and responsibilities between experts and the government. During this Covid-19 pandemic, we experts had to come to the front in many ways, including risk communications. There were reasons for this, and I will explain them in detail, because I believe it is important for future pandemics.

When the outbreak began, in January and February 2020, we experts knew three things.

First, for this infectious disease there are many asymptomatic people who can infect others, meaning that the virus is very difficult to deal with, more specifically to bring down to zero. We can't test all asymptomatic people every day. Second, in January and February of 2020, our judgment was that the disease was not only spreading on cruise ships where infections started in Japan, but that it was already slowly spreading in the community. Third, it was our judgment that this would not be contained quickly, and that it would be a long-term battle.

We experts wanted the government to communicate those three things to the public as soon as possible. Therefore, we submitted recommendations to the government in writing at the expert meeting on Feb. 24, 2020 to ask it to communicate the three things to the public. By the way, NHK learned of the fact that experts submitted recommendations, and thought that the public should be informed, so NHK, through the Ministry of Health, Labour and Welfare, asked me to appear on the 7:00 p.m. news to explain about our recommendations. In NHK's view, the public naturally had the right to know, and the ministry did not object, so I explained it live on air. Then at the request of other newspapers, television and other media outlets, a press conference was held at the ministry at 9:00 p.m. that same day. I explained the summary of the recommendations in front of many media outlets.

This set a precedent, and thereafter it became customary for us experts to hold a press conference each time we issued a recommendation. In fact, we have issued more than 100 recommendations in three and a half years. The pattern of holding a press conference each time a recommendation was made has become an established practice.

In addition, at the request of the Prime Minister's Office, I, on behalf of experts, attended the prime minister's press conference. Since we are members of the Japanese government's Covid-19 advisory panel, there was no choice but to accept the request. My role was to provide support to the prime minister when technical questions were asked by the media. Furthermore, I was called to the Diet every day for a while. These are the reasons why we experts became so visible.

Now when it comes to the relationship between the government and experts, there is essentially an ideal form of relationship between the two.

It so happened that what researchers studying optimal division were thinking and what we experts were thinking were exactly the same. Namely, experts would analyze the situation, and based on that, would make recommendations as to what measures should be taken. The government's role would then be to make the political decisions on whether to adopt the recommendations or not. Now incidentally, the government has adopted many of the more than 100 recommendations we have made.

Naturally the government's viewpoints are sometimes different from the viewpoints of experts, so the government does not have to adopt all of the recommendations by the experts. However, if they do not adopt them, it is very important for political leaders to clearly explain why they do not adopt, what they will do instead, and so on.

Unfortunately, however, at that time there was no clear explanation from the government. This may have obscured the decision-making process and created the impression that the government and the experts were at odds with each other and sometimes gave the impression that it is the experts who made final decisions. This was one lesson learned.

Importance of Communicating Scientific Findings to the Public

Oguro: The government is now emphasizing objective policy formation based on data, including EBPM. Do you think the pandemic experience encouraged the spread of data-based policy formation? Also, I think that communication with the public about specialized scientific knowledge will become increasingly important in the future. What do you think about this?

Omi: We felt great frustration about the lack of digitalized epidemiological information. Epidemiology is the study of analyzing how and why virus transmission is occurring based on information about the number of patients, gender differences, regional differences, and date of onset of disease for an entire region, etc. In Japan, there are several world-renowned experts in epidemiology. However, the data itself for analysis is inadequate, both in terms of timing and quality. In South Korea and Taiwan, data on the spot are quickly collected through IT, but Japan lacked such a system.

In each infected spot, public health nurses interviewed infected patients in order to obtain data for analysis, so it means that some data, although it may not be complete, does exist at the community level. But in Japan, such data was not shared with other regions or the central government, because different local governments have difficult legal provisions pertaining to protection of private information. Some experts had to call responsible persons in each community to get information on the phone or ask them to send it to us by fax. We wanted to make rational policy proposals based on the data, but the information we needed was inadequate and accessing it was time-consuming.

Even with these limitations and constraints, epidemiologists had to submit their view to the government based on information gathered by fax or phone. Working too hard under such frustrations, some experts were hospitalized. Now, the Digital Agency and others are doing a lot of work on digitalization, but I think the speed of progress is too slow. Political leadership is needed to prompt it.

The next topic, risk communication, was also difficult. For example, the issue of PCR testing. Some people have said that experts may be deliberately suppressing PCR testing. It is true that at the expert meeting on Feb. 16, 2020, the government proposed that people should visit hospitals for PCR testing, if their temperature is 37.5 degrees Celsius or higher for four days or longer, and we agreed at that point because the testing capacity was extremely limited at that early stage of pandemic. At the same time, however, we recommended strengthening inspection capacity 15 times between February 2020 and August 2021.

But then around August of 2020, it was as if the national opinion was divided over testing. There was a time when people were arguing every day, with one side saying that everyone, including asymptomatic people, should be tested, and the other side saying that it should be done strategically.

I thought that it is not good to let the division continue. Therefore, experts, both medical and economic, spent a lot of time and energy to developed a PCR testing-related strategy that we had some confidence in. It is natural to test people who are symptomatic. But what to do with asymptomatic people was the crux of the issue at the time. So we divided the asymptomatic population conceptually into two groups.

One was the group that would have a high probability of testing positive if tested. People who have been in close contact with the infected belong to this group. And also people in the hospitality industry, as well as in the food and beverage industry belong to this group. These people should be intensively tested even if they are asymptomatic. We know theoretically and empirically that testing this group of people will lower the effective reproduction number (the number of people spreading the infection per infected person). Because of its effectiveness in fighting infection, we decided that its cost should be covered by the public and taxpayers, not by ourselves.

On the other hand, when, for example, a journalist or businessman wants to go abroad for interviews or business, testing such a person with a relatively low prior probability of infection will not necessarily lead to a reduction in the effective number of reproductions. We understand that there is a need to test these people for their own peace of mind, so in that case we decided to do so at the expense of the individual, not the taxpayer.

What I remember well about this testing strategy is that when we held a press conference to explain in detail about this strategy, media hardly reported this. The reason why they didn't cover it was that most of the media attention was focused on the government's "GoTo" campaign in support of tourism and our disagreement over the campaign with the government. This is the difficulty of risk communication, what we really wanted to convey as a key message to the public was not really conveyed in fact.

Another difficulty in risk-communication is that we made more than 100 recommendations, and of course we cannot make them based on our own arbitrary feelings and thoughts. If our recommendations are adopted by the government, they will be implemented, and this will directly or indirectly affect people's lives, work, and education. This was the case, for example, when we proposed that the 2021 Tokyo Olympics be held without spectators. Naturally, in our proposal, we included as much data, rationale, and thinking as possible, as well as our common sense as infectious disease specialists. We felt developing recommendations based upon data and rationale was our primary task. However, the basis for our recommendations was rarely discussed or reported. Only our conclusions, or more specifically, only part of our conclusions, were conveyed to the public, so that the public was not informed on the rationale behind the recommendations or the context in which the recommendations were developed.

One of the reasons I published *1,100 Days of Conflict*, a record of our fight against the pandemic, is that I thought it would be necessary for us to explain how we think, and on what basis we made recommendations so that our recommendations can be put to the test of history later. But until now, there has been little or no discussion of the rationale behind the recommendations.

Finally, I would like to share one more specific example of the difficulty of risk communication. Initially, around March 2020, there was concern that the infection might have spread from snow festivals in Hokkaido. But we were unaware of it, because young, infected persons develop no or only mild symptoms. However, the young people who were infected traveled to the remote Hokkaido area for work and other reasons, and had opportunities to meet with relatively elderly people. Since the elderly are more likely to present apparent symptoms, it was there and then that the infection situation appeared on our "radar".

But I was fully aware that if I did not say enough, and carefully, I would be interpreted as only blaming the young people, and so I explained politely and carefully that this is not the fault of the young people at all, but is a characteristic of the virus. And because young people move a lot, and although it is not their fault, it is true that the elderly are infected through their movements as a result. However, I was still told by young people that I was bullying youth on behalf of medical experts. This was the difficulty of risk communication.

Lessons Learned to Prepare for the Next Pandemic

Oguro: In the case of earthquakes, since they occur at shorter intervals than pandemics, knowledge can be passed on through the response of earthquake specialists and related ministries and agencies to the Noto and Great East Japan Earthquakes. On the other hand, the last time a pandemic occurred was 100 years ago or so. What are the essential lessons that should be passed on to the future? What kind of things should be properly considered by experts and those in government?

Omi: This was a once-in-a-century crisis. Many lives were lost, the economy was damaged, people were divided, and young people missed out on a period of their adolescence. On businesses, although some received subsidies for cooperation, some people were seriously hurt financially. Some of the elderly were unable to get out of the house, and their dementia may have progressed. There was also the crisis of a medical crunch. We should carefully examine why this happened - for example, why the crisis in medical care occurred, which was the most important issue from this pandemic. Otherwise the same thing could happen again.

Also, many people cooperated with us in controlling their behavior, but there were actually some who did not cooperate. Do we enforce such people with penalties? Or do we give them a financial incentive to comply? And then there is no clear definition of the roles between experts and politicians. But these important issues are hardly examined and discussed.

Such a thorough retrospective evaluation is essential if we are to take the most advantage of what we have gone through to be well prepared for the next pandemic. Without a thorough examination of what was the real cause of the healthcare crunch, we will end up with repeating it again.

The Ideal Form of Japanese Healthcare – Cooperation with Asian Countries Key

Oguro: As we all know, bacteria with antimicrobial resistance (AMR), which reduces the effectiveness of medication, could cause 10 million deaths per year worldwide by 2050, more than deaths from cancer, according to a report published in December 2014 by the British economist Jim O'Neill. Countries around the world are required to take measures to reduce such drug-resistant bacteria. Can Japan take sufficient measures? Also, the mRNA vaccines that were effective in this pandemic were developed and mass-produced in Europe and the US, and distributed to Japan, but if they were really only produced in limited and small lots there would be a possibility they might not be distributed to Japan. So we still have to be seriously concerned about the fact that Japanese pharmaceutical manufacturers were unable to develop the product. What do you think should be done to improve this situation?

Omi: I feel that Japan's presence in the international community is gradually declining. But, Japan actually has a lot of experience and know-how to share with the international community in the field of health care. Japan cannot take a leadership role in military affairs. What I see as areas for Japan's international contribution to further accelerate is areas such as universal health coverage, pandemic preparedness and tuberculosis control. Health is everyone's concern.

I am now with the Japan Anti Tuberculosis Association. Although the number of deaths from infectious diseases is decreasing in Japan, tuberculosis is still the leading cause of death worldwide. TB is a constant pandemic. This affects social and economic development in developing countries.

Japan is now producing various diagnostic reagents and diagnostic kits for AMR and other diseases. I believe the public, private sector, and academia should strengthen collaboration in this area, and expand the network all over the world. Young Japanese people today are unfortunately rather inward looking and I think they should be given incentives to pay more attention to the world outside Japan and use their energy for global challenges. In particular, in areas like health care, risk management or countermeasures for pandemics, international collaboration will be key in the future and thus building up international human networks is extremely important.

In addition, I think the Japanese government's budget and other commitments to vaccines have been low. Vaccines are important, but unless the government invests, and drives the development of vaccines, there will be no incentive for companies to develop them to prevent pandemics.

Oguro: You were director general of WHO in the Western Pacific region, so I would like to ask if you think Japan should take more initiative in global healthcare cooperation, especially in Asia?

Omi: Yes, indeed. TICAD in Africa is important, but Japan should also show leadership in Asia. Japan's ODA has a good reputation in Asia.

Oguro: If they are Asian, the clinical trial data will be similar.

Omi: Yes. Although China and the G7 are now in a bit of a difficult relationship, I think that healthcare cooperation, as one of the pillars of diplomacy with various countries, such as Indonesia and the Philippines, should be done strategically. I think there are many countries that, like Japan, have problems with population aging and would like to cooperate with Japan on health care. I believe that deepening cooperative relationships with Asian countries, especially those in ASEAN, through such issues and building such alliances will lead to the enhancement of Japan's presence not only in Asia but also in the world.

Oguro: Thank you very much for your valuable views.

Article translated from the original Japanese by Naoyuki Haraoka.

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Interviewer: Kazumasa Oguro has been a professor at the Faculty of Economics, Hosei University, since 2015. He graduated from the Faculty of Science of Kyoto University and received a Ph.D. in Economics at Hitotsubashi University. He is currently also a senior visiting researcher at PRI, a consulting fellow at the Research Institute of Economy, Trade and Industry (RIETI), and advisor to "Japan Vision: Health Care 2035".