



“Strong Societies” and “Weak Societies” in the Face of Infectious Diseases: Lessons from the Second Wave—COVID-19 attacks the broken parts of society

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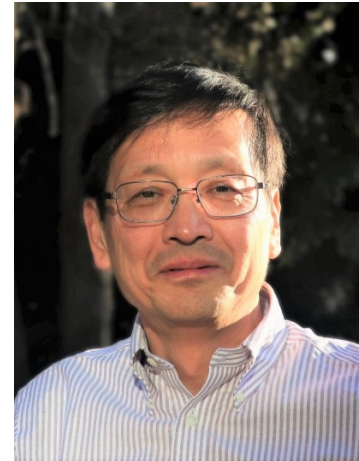
Since June, Japan has experienced a COVID-19 “second wave” of considerable magnitude. This was expected to a certain extent, given that people’s movements have not been forcibly restricted as they were in the earlier state of emergency. However, its scale exceeded expectations.

Since the peaking of the second wave in late July, the rate of decline has been slower than the first wave in April and May. Eventually, rates of new cases stopped declining and the number of cases began to rise in some prefectures, along with a gradual increase in the number of deaths. The source of the second wave is believed to have been Tokyo, the scale of the outbreak at the source so large that it left an impact across the country.

The mechanism by which COVID-19 becomes prevalent follows one of two patterns. One is where the virus spreads from a single large cluster, as happened in February at an event of the Shincheonji religious group in Daegu, South Korea. The other is when a chain of clusters lead to transmission. It is this latter pattern that is believed to have triggered the outbreak in June.

An analysis of 4,800 cases in Japan showed that most chains of transmission are not sustained, with 80 percent of infected persons not infecting anyone. The scale of the spread of infection depends on the size of the cluster at the initial stage of the spread. In the case of a 10-person cluster, two of them may infect a few members of their family, but the spread will likely end there. In a cluster of 100 people, 20 people may infect others. In such a case, the virus is transmitted from family members to friends, then to hospitals where grandparents are staying, and so on, the chains of transmission being sustained through the fourth and fifth generations. It is speculated that Kabukicho in Shinjuku (Tokyo), the largest nightlife entertainment area in Japan, in particular met the conditions for cluster to cluster transmission, resulting in a substantial number of infected persons.

Perhaps at some point in July we should have slammed on the brakes, forcibly stopping the flow of people. If we had done so, we may have been able to minimize the spread of the second wave across the country, but we still do not have the answer to this. While the Go To Travel campaign that began in late July was not what we experts in infectious diseases had intended, we all understood that some people could not make ends meet without turning around local economies.



Dr. Oshitani Hitoshi

Why children are not a source of outbreaks

The issue of whether to take prevention measures or recover economic activities has emerged as a major point of contention. However, if we create such an axis of conflict, pitting each side against the other, Japanese society will just become divided and exhausted.

I have spent some eight months analyzing the epidemiological situation and providing expert opinions and recommendations to the government on the measures that need to be taken as a member of the government's Novel Coronavirus Expert Meeting (reorganized to the New Coronavirus Infectious Diseases Control Subcommittee in July) launched in February. I am also analyzing local clusters as a member of the COVID-19 Cluster Taskforce of the Ministry of Health, Labour and Welfare (MHLW).

As an expert, I am always thinking about keeping the economy moving while curbing the number of people becoming seriously ill and dying. To date, over 1,500 people have died from this infectious disease. To the bereaved families, I can only offer my sincere condolences. However, while the United Kingdom and the United States have suffered over 600 deaths per million population and Germany has suffered over 100 deaths per million population, Japan has suppressed the number of deaths to 12 per million population. The death toll in August in Tokyo was 32. In contrast, 187 people died of heatstroke.

The risk cannot be reduced to zero. So how do we deal with this virus? And how far do we tolerate the risk, as COVID-19 is not the only risk: when new infectious diseases emerge in the future, we may not be able to minimize the number of deaths as we are now.

A characteristic of COVID-19 is that children are very rarely the source of outbreaks. This contrasts starkly with influenza. Children are drivers of infection in the case of both seasonal influenza and the pandemic influenza A/H1N1 2009. Since children spend their days in close-contact settings, influenza spread among them and, in turn, to their parents, at a speed incomparable to that of COVID-19. A pandemic of highly pathogenic influenza is expected to cause hundreds of thousands of deaths at worst in Japan.

Our experience with COVID-19 has revealed that there are “strong societies” and “weak societies” in the face of infectious diseases such as these. What kind of society will Japan create in the post-corona era? This is not something an infectious diseases expert can decide. (I agreed to be interviewed by *Bungeishunju* because I thought it was time for us all to think about this again.)

Exposing the dark aspects of the developed world

In what kind of places do clusters occur? Overseas, large-scale clusters have commonly occurred in the working and living environments of foreign workers.

For example, Singapore had 57,000 infected persons in this category. Most of these were construction workers from countries such as Bangladesh. They were housed in small, unsanitary dormitory rooms crammed with several bunk beds. The Singapore government has published statistics on infections of workers in such environments, even categorizing them as dormitory residents. Despite the fact that these workers support Singapore's growth, they are considered to be outside of society.

In the United States, a high rate of infection among African-Americans and Hispanic immigrants has been observed. In meat-processing plants in particular, the number of infected persons is close to 10,000. Most are Hispanic immigrants. Likewise, in Germany there have been massive clusters of mainly Turkic immigrants in meat-processing plants. What these cases have in common is that large numbers of workers are working in refrigeration facilities as well as having poor living conditions. Working in crowded conditions in the enclosed spaces of refrigeration facilities, sharing communal rest areas, and carpooling (to work), the “3Cs” (closed spaces, crowded places, and close-contact settings) were ubiquitous.

These workers also received inadequate government services. They were unable to access information disseminated to prevent infection, and access to health care was poor. This may have delayed detection of outbreaks, leading to large scale outbreaks.

The virus does not think. Yet, it cleverly exposes the dark aspects and shady side of the world’s societies, as though that had been its intention. That is a characteristic of this virus.

Japan too had been increasing the number of foreign workers, including the acceptance of trainees and technical interns from abroad. However, its economic structure is not completely dependent on their labor. The reason a large-scale outbreak has not occurred is thought to be because interns are dispersed around the country in small groups, relatively highly literate and educated.

The importance of a trust relationship with foreigners

Infection was also a concern in Shin-Okubo in Shinjuku, home to foreigners from many different countries and to many ethnic restaurants from around the world. I had been there numerous times before the epidemic. One time, I happened to go there on the day of a festival. In the shopping street there was a Japanese facilitator, a Korean woman wearing a yukata setting up a goldfish-scooping stall, and a Bangladeshi or Nepalese person selling curry. A certain order prevailed through the mutual acceptance of one another in differentiated spaces. Where there is this kind of mutual trust, large-scale outbreaks of disease are unlikely to occur.

Immigrants living in Shinjuku Ward share information and understand where they need to take preventive measures for COVID-19. Many also have health insurance, so there is no lack of access to health care.

The most pronounced clusters related to the foreign community in Japan are found in Filipino pubs. The women who work there are not necessarily young—many are in their mid-40s or older and some are quite advanced in age. These women came to Japan around 20 years ago, when visas could be obtained more easily, and now have permanent residency. The pubs are in fact open from noon and have become a part of day-to-day life for elderly men in the neighborhood living alone, who go there to eat, enjoy karaoke, and relax. These men have close links to the strong network of Filipinos. While this intense social contact makes them susceptible to the spread of infection, they are careful to maintain communication. This situation is different from the case of immigrants in the West who are cut off from the other members of the community.

Japan has various other foreign communities working in factories and other establishments. Since August, some areas have seen an increase in the percentage of foreign nationals infected. Discrimination and prejudice against infected persons and health care workers are major issues. In

the case of foreigners, they are more susceptible targets of this discrimination and prejudice, necessitating even greater caution. A move toward social division and exclusion will only make the situation worse and increase the risk to Japanese society. In the future, there will be an even greater need for the government to disseminate multilingual information and to strengthen consultation systems and medical systems for foreigners.

The risk is heightened in workplaces where employees live together in groups. Infection has also been observed in groups of Japanese construction workers living together, and caution is needed here also.

Entertainment district measures a source of conflict and regret

The settings with the highest level of transmission in Japan have been urban entertainment districts. These include areas of Minami in Osaka, Sakae and Kinsan (Nishiki Sancho) in Nagoya, Nakasu in Fukuoka, and Susukino in Sapporo. The largest volume, however, has been in Kabukicho, where at one point the positive rate of PCR test spots in Shinjuku exceeded 30%. One-third of the nation's so-called host clubs are said to be concentrated here, attracting young men from all over the country, as well as the women who seek them out.

It is not known exactly how the spread of the infection in Kabukicho occurred. Only a small handful of people working at host clubs can make enough money. They often work for low pay and live in dormitories. Many are thought to have come to Tokyo with some kind of dream for the future and do not intend to make a long term living as hosts. The dormitories that accommodate them became high-risk settings for infection.

At the same time, a certain percentage of the women who frequently go to host clubs also work in nightlife entertainment places. Female customers of host clubs likely became infected and caused successive clusters in different establishments, leading to chains of clusters.

Some experts went so far as to opine that Kabukicho should be temporarily closed down from July. South Korea had closed down the area of nightclubs where the clusters occurred, thereby succeeding in containing the infection in one fell swoop. However, there was also concern that closing down Kabukicho would cause those working there to disperse to other areas and spread the infection. In one pattern observed, people traveling from Tokyo spread the infection in entertainment districts in other areas of the country.

Closing down Kabukicho could have temporarily contained the outbreak locally, curbing the scale of the outbreak nationwide. However, without the cooperation of the proprietors and employees of establishments in the entertainment district, there is a risk that the same thing will happen again when it reopened. Not only that, but the people who work in this city could turn against the government. For those reasons, I did not agree with closing down Kabukicho completely.

However, if an outbreak above a certain scale occurs in an entertainment district, the infection will spread to the general public. A pattern of infections in the workplace and households leading to outbreaks in hospitals and elderly care facilities was also observed in the outbreak between March and May. The spread of infection from Kabukicho has extended nationwide beyond expectations. It would be false to claim that I did not feel conflicted and a sense of regret about whether it was a mistake not to stop the spread of the infection sooner.

Will Japan too be devastated . . . ?

Many women who work in entertainment districts are single mothers, a significant number of whom experience financial strain. I hear of cases of these women losing their jobs then taking up work in nursing facilities that have a shortage of staff. Their natural facility with communication makes them understandably suited to this type of work. However, outbreaks in nursing facilities must be avoided at all costs.

If we do not consider the situation of men and women who work in nightlife districts, infection control will not work. We are continuing to explore ways of building trust while gaining their cooperation in infection control and proactive testing, which will lead to early detection and early response.

The first initiative is the establishment of the Working Group for Measures to Prevent the Spread of Infection in Entertainment Districts in Large Cities (Chairman, Dr. Imamura Akifumi, Director at the Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital) under the government's COVID-19 Infectious Diseases Control Subcommittee. I myself have begun to participate in discussions with the government and trade associations. It is planned to reach a certain level of agreement by the end of October on practical measures, such as the establishment of testing centers in entertainment districts and ways to encourage cooperation in the use of such centers [“Actions against Novel Coronavirus Disease” (Report of the 44th Meeting of the Headquarters for Novel Coronavirus Disease Control; October 30, 2020) <https://www.niid.go.jp/niid/en/2019-ncov-e/9976-covid19-ab13th-en.html>].

The biggest crisis in the past seven months or so has been the strain placed on medical services, particularly intensive care settings, in March and April, 2020. This is particularly the case in Tokyo.

From the end of 2019 to the beginning of 2020, massive outbreaks occurred such as Wuhan in China, and Italy and New York in March, that were far more wide-reaching than those in Japan. Without exception, the phenomenon of a “collapse of the healthcare systems” occurred.

From March to April, some hospitals in Tokyo experienced large-scale nosocomial infections. Faced with this situation, the phenomenon of “collapsed healthcare systems” could well have occurred in Japan too. In other words, the whole of Japan, not merely the whole of Tokyo, was on the brink of falling into a situation as dire as that in North America and Europe. At that time, I shared the sense of impending crisis, wondering if Japan too would be devastated.

What happened in Northern Italy and New York was as follows. COVID-19 infected persons were hospitalized one after another, and hospital beds filled up. When capacity was reached, patients were transferred to nearby hospitals. Inpatients at the transfer destinations became infected, and clusters developed. At that time, it had just been discovered that the epidemiological characteristics of COVID-19 include the fact that some infected persons are asymptomatic and that infection can occur prior to the onset of symptoms. Awareness of these epidemiological characteristics of COVID-19 was not yet widespread among healthcare workers, let alone the general public, so people who were not suspected to be infected ended up spreading the infection at the hospital to which they were transferred.

Causes of delay in providing support to hospitals

In places where large-scale outbreaks have occurred, there has been an explosive spike in infections. This phenomenon is known in Japan as “overshoot,” and paradoxically occurs in areas that are able to provide a certain level of medical care. In Italy, for example, overshoot happened not in the country towns of Southern Italy but in Milan, which is considered to be the most economically affluent region of the country. In Africa, the large-scale outbreak of COVID-19 occurred in South Africa, one of the BRICS countries, not in countries where the Ebola virus epidemic occurred with very poor medical resources, such as Guinea, Sierra Leone, and Liberia. Hospitals in these countries have testing facilities, and because they are close by, people go to the hospital when they experience minor changes in their physical condition. Similarly, in Japan the conditions for overshoot are found in Tokyo, which is especially well-equipped with medical facilities. Hence, the scenario of collapsed healthcare systems as a result of nosocomial infections was realistically possible.

Tokyo has many large hospitals, including university hospitals. However, there is insufficient horizontal cooperation between these hospitals. I believe this is the reason for the delay in providing support to hospitals that were on the verge of collapse.

Public health centers play a major role in infection control, not only through conducting epidemiological investigations but also through coordination of testing and hospitalization. This is the case for the public health center in Shinjuku Ward, where Kabukicho is located, and which is overwhelmed with consultations and the transport of samples due to ongoing staff cuts. The burden on public health centers has become more and more excessive with each passing hour.

In addition, the more tests that are carried out, the more infected persons are detected, which means more work for public health centers. A frequent obstacle in determining the status of infection was the lack of cooperation between the ordinance-designed cities and the prefectures that have jurisdiction over their own public health centers. With the exception of Osaka Prefecture and Osaka City, which are politically connected and worked well together, cooperation between cities and prefectures was not smooth and the exchange of information was erratic. The public health centers in Tokyo’s 23 wards were a prime example. While public health centers come under the jurisdiction of the wards, with the exception of a few wards, announcements on the infection situation are left to the Metropolitan Government.

In rural areas, the situation is different. About a year and a half after The Great East Japan Earthquake, I traveled to Ishinomaki City in Miyagi Prefecture to document the activities of public health nurses there. In the Ogatsu and Oshika districts, which were almost completely destroyed by the tsunami, public health nurses continued to work closely with residents, remaining at their posts even though they did not know whether or not their own families were safe. This relationship of trust between public health nurses and local residents seems to have already been lost in urban areas.

Although infected persons move across ward and city borders, information sharing and coordination among neighboring public health centers is not smooth. I believe one reason for this is the lack of a face-to-face relationship between local hospitals, universities, and public health centers. In this respect, I would even go so far as to say that Shin-Okubo’s foreign community is superior, in that it has built trusting relationships despite its ethnic diversity. I consider this to be a major issue for Japan in terms of its response to future crises and other challenges.

Religious groups are more resistant to infectious diseases the more traditional they are

The more I learned about the people who gather in downtown areas, the more I began to think that “gathering” may be one of the behavioral principles that lives on in the human race. Yuval Noah Harari writes in *Sapiens: A Brief History of Humankind* that the reason Homo sapiens has survived on Earth is because we are able to work together in groups. Hunting and farming are prime examples. So too are religious events. And religious events became a hot-bed for clusters overseas.

In some countries, fundamentalist denominational leaders are calling for mass rallies to defeat COVID-19. There have been reports of such gatherings actually forming mega clusters. In the United States, a prominent Christian evangelical pastor in Florida was arrested for holding a large-scale church service in violation of regulations. President Trump has the backing of evangelicals and so is unable to curb such activity of the religious right.

The Pope, on the other hand, has switched to streaming Mass online. Also in Islam, many believers abide by the regulations. It may be that they have learned from history that densely populated religious events are susceptible to infectious diseases, so they made exceptions to the rule as a safeguard. In contrast, as mentioned above, it would seem that the more critical a sect is of modern society and modern life, the greater its tendency to insist on “gathering.”

Why Japan and other countries in Asia have been fortunate

Shinto and Buddhism events in Japan are held in an environment that is not prone to the 3Cs. This too may be a consequence of the past history of infectious diseases. However, it is my hypothesis that the clusters have been caused by the “gatherings” of underground idols and theater performances that have replaced religious events in modern times. The theater in Shinjuku where the spread of the infection occurred was not only a place where the audience watched the performance. It was also a place where the audience and the performers interacted, creating the risk of infection.

A further basis for the prevalence of COVID-19 in Japan is the government’s promotion of inbound tourism, which has seen the country accept greater numbers of foreign tourists.

Fortunately, however, Japan and other Asian countries recognized from the outset that the COVID-19 originating in China was an imminent threat to their own countries. In contrast, the US and Europe initially believed that the disease was not an immediate threat to them, that from Asia it would spread to Africa, then to the former colonial powers of Europe, and that by the time it reached the US it would be in its last stages. The first indication that they had got it wrong was the massive outbreak in Northern Italy. By the time the infection in Italy was noticed in late February, the number of infected persons had increased at an exponential rate, and it may well be that the influx of the virus occurred prior to January 2020.

Italy, being the first G7 country to accept China’s Belt and Road Initiative, had a large number both of workers from China and returnees. Since movement within the EU is unrestricted, no barriers were in place to stop it spreading to other countries, creating a pandemic across Europe since March.

At that time, the United States had its attention on the West Coast, which faced Asia where the infection was spreading. It had overlooked the large number of infected persons coming into New York from Europe, allowing the virus to enter via the East Coast. New York is also home to many

Italian immigrants. Although the first infected person in New York was found on March 1, the influx must have begun much earlier. I think the reason for the oversight is that globalization was more advanced than people had thought. Before they knew it, China, Northern Italy, and New York had become inter-connected.

Why did it spread from Wuhan?

We are living in a different world from that of 2003, the year of the Severe Acute Respiratory Syndrome (SARS) epidemic. Dr. Omi Shigeru, then Regional Director of the Western Pacific Regional Office for the World Health Organization (WHO) (currently Chairman of the New Coronavirus Infectious Diseases Control Subcommittee) declared the end of the epidemic eight months after the first case emerged.

One reason why SARS could be contained in a shorter period of time than COVID-19 was because globalization was less advanced then than it is today. With ordinary people finally able to cross from Mainland China to Hong Kong, the virus spread first from Guangzhou Province to Hong Kong and then, via a hotel in Hong Kong, to the rest of the world. Because transmission paths to the rest of the world were limited, almost all the chains of transmission could be tracked.

In the year 2020, China's mainland cities are directly connected by air to the rest of the world. Wuhan, which in 2003 was just a deserted provincial city, is now the center of the automobile industry. Many Japanese companies have moved into the area, with large planes now flying from Narita and Kansai International Airports several times a day. The speed, distance, and volume of human movement are all immeasurably greater today than in 2003, making it very difficult to intercept all routes of infection.

While COVID-19 is a more difficult virus to control than SARS, it might have been contained if the initial spread had been limited to Asia. In fact, genetic analysis of the virus has shown that the virus which spread directly from Wuhan to mainly Asia has virtually disappeared, while the virus which spread in Europe is causing epidemics around the world.

Some Ebola is airborne

Pandemic threats are not limited to COVID-19. When international travel resumes, new infectious diseases may keep coming. In the case of a pandemic of a new and very different type of influenza, the damage cannot be controlled unless a more rigorous approach is taken to curbing social activities than that adopted in the state of emergency in April 2020.

The pandemic influenza that was prevalent in 2009 offers a frame of reference. Although the disease was not highly pathogenic, the number of affected people in Japan as a whole reached 20.3 million during the 7-month epidemic. In other words, it had to spread that far to subside. The number of persons infected with COVID-19 for the seven months or so from February in 2020 to the present is still over 80,000 for Japan as a whole, a difference of three digits.

Aside from an influenza pandemic, one of the threats most feared by some infectious disease experts is that of the highly lethal Ebola virus mutating to become airborne. There have been actual suspected cases of airborne transmission of Ebola virus. In 1989, in a small town called Reston on

the outskirts of Washington, there was an outbreak of Ebola virus among monkeys in a breeding facility. It could only be assumed that the virus had become airborne from the animals' two-story cage breeding environment. Fortunately, the Reston strain was not pathogenic to humans, but we cannot predict when and where it will mutate into a highly lethal virus. The movie *Outbreak*, starring Dustin Hoffman, depicts such a worst-case scenario.

How will society as a whole cope with such threats? Do we want to build a society that is vulnerable or resilient in the face of viruses? Through its experience of COVID-19, Japan is faced with a grave choice.

In an NHK-BS interview in March, Goka Koichi, an ecologist at the National Institute for Environmental Studies, commented that Japan's island nation status made it intrinsically resilient against viruses. Until the Edo period (1603–1868), it was a decentralized, material-recycling society, making it less susceptible to the impact of pandemics (*Uirusu to jinrui* [Virus vs. Human Being], Bunshun Shinsho). Smallpox was, however, prevalent in the Edo period, with records stating that some 100,000 people died from cholera brought by Perry's squadron in the closing days of the Tokugawa Shogunate. But the fact that the country was closed to outsiders and that crossing domain borders was restricted meant that the society was protected, albeit not completely, from infectious diseases.

Following the Meiji Restoration, Japan opened up to the outside world and shifted its focus to the creation of a society that emphasized economic growth. However, this also meant moving in the direction of a society with a high risk of infectious diseases. Even after defeat in WW2 and the Great East Japan Earthquake, the trend of prioritizing economic growth remains unchanged. In the last 20 years in particular, production bases have been shifted overseas in order to keep up with the wave of globalization, as a result of which disparities have widened and society has begun to break down. Tokyo may not be the only place where relationships of trust are beginning to crumble as a result of the loss of face-to-face relationships.

From time to time, I have warned that the risk of infectious diseases is not being considered in the current changes in Japanese society, but it has been difficult to get people to listen. COVID-19 has much to teach us. Forcing immigrants and foreigners into low-paid work is risky. And a highly globalized society centered on Tokyo is a society that is more vulnerable to viruses. Why do 30 percent of the population live in the Tokyo Metropolitan Area? An individual commuting to work by train for 1.5 hours makes a 3-hour round trip daily, amounting to 200 days a year, which means they spend 600 hours a year on crowded trains. Now that many people have experienced telework, this should no longer be the norm.

COVID-19 is also an opportunity

With sophisticated online systems, it is possible to live in an affluent regional city and still work for a company in Tokyo. At the same time, it should be possible to provide children with a high level of education and access the same level of medical care as in urban centers. If companies invest in this way, they can account to their shareholders. If central government ministries and large corporations have the courage to seize this opportunity to move their headquarters to regional areas, it will lead to regional revitalization.

Japan's aging population has left many workplaces reliant on foreign labor. We must aim to create a society that does not regard these people simply in terms of cheap labor, but as part of the community.

COVID-19 was a disaster. However, it is an opportunity to rethink the nature of society and the direction of the economy. The challenge of combining infection control with a well-functioning economy offers an opportunity for Japan to become a "decent society" once again. We have a responsibility to think about what kind of a country we want Japan to be after we have survived the COVID-19 calamity.

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* <https://japan-covid19.japanpolicyforum.jp/society/pt202010051810735.html>

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