

Part III Best practices and challenges

Chapter 1

Preparedness against a pandemic crisis

What systems do you build up in advance to respond to a crisis in case it happens? Being ready for the onslaught of a crisis is generally called preparedness. Japan's preparedness in dealing with infectious disease crises has evolved through the nation's experience of responding to a series of such crises.

In this chapter, we examine the state of Japan's preparedness for managing an infectious disease crisis up to the point just before the outbreak of the novel coronavirus disease by reviewing its history of dealing with such crises. In particular, we focus on laws and organizations as an infrastructure for supporting governance in managing an infectious disease crisis.

1. The history of Japan's efforts to control infectious disease crises

Infectious disease crises have been taking place with increasing frequency around the world since the turn of the century. In Japan, the Health, Labor and Welfare Ministry took charge of building and expanding crisis management systems against infectious diseases each time such a crisis hit somewhere in the world. Among these crises of the 21st century, two – the H1N1 novel influenza pandemic of 2009 and the Ebola virus that hit western Africa in 2014 – have played particularly important roles in prompting the government, mainly the health ministry, to build and enhance Japan's capacity to manage crises caused by infectious diseases.

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Major infectious disease crises of the 21st century

Year	Infectious disease crisis	Geographical scope
2003	SARS (Severe acute respiratory syndrome)	Originated in Asia to spread across the globe
2005	H5N1 Highly-pathogenic avian influenza	Southeast Asia
2009	H1N1 Novel influenza	Pandemic ¹
2012-2014	MERS (Middle East respiratory syndrome)	Middle East
2013	H7N9 Avian influenza	Mainly in China
2014-2016	Ebola hemorrhagic fever	Originated in western Africa to spread across the globe
2014	Dengue fever	Japan
2015	MERS	Large-scale outbreak in South Korea
2015-2016	Zika virus disease	Central and South America
2018-2020	Ebola hemorrhagic fever	Democratic Republic of the Congo and its neighbors
2020-	COVID-19 (novel coronavirus disease)	Pandemic

1.1. 2009 pandemic of the new H1N1 strain of influenza

It was the 2009 pandemic of the new strain of influenza (A/H1N1) that led Japan to carry out the most extensive domestic operation in recent years to deal with an infectious disease crisis, which heavily influenced the nation's subsequent efforts to develop its systems to respond to such emergencies. The new-type influenza spread across the globe after it was first detected in Mexico in April that year. Within little more than a year of its outbreak, roughly 20 million people were infected and some 1.8 million of them were hospitalized in Japan.² Still, the death toll in this country was 203 as of the end of September 2010, and the mortality rate from the pandemic was kept at 0.1 percent (or 0.16 death per 100,000 population) – one of the lowest around the world and between one-third to one-26th of the levels observed in countries in Europe, North America and Mexico.^{3,4}

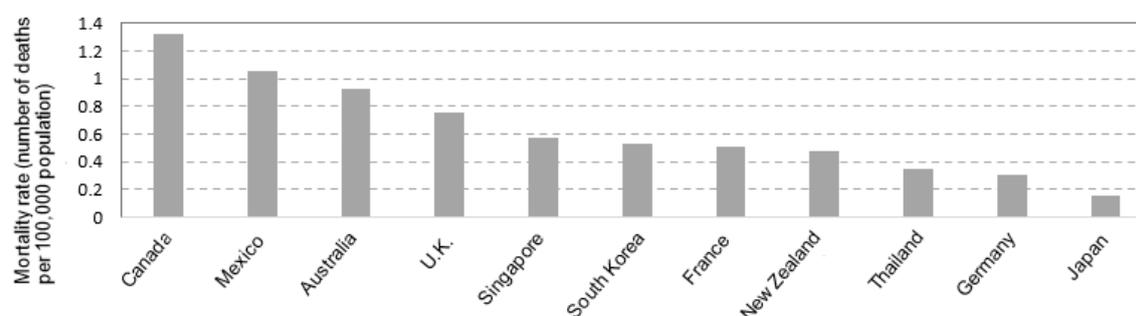
Ultimately, the pathogenicity of this new strain of influenza virus – or the risk of infected patients developing serious symptoms or dying – was as low as seasonal flu.⁶ When the infections broke out, however, it was not known how virulent the novel influenza was, and the nation had to launch an extensive crisis control operation to guard against a highly pathogenic virus, thereby temporarily straining medical resources and the supply of daily goods.

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Deaths from H1N1 novel influenza pandemic in each country

	U.S.	Canada	Mexico	Australia	U.K.	Singapore	South Korea	France	New Zealand	Thailand	Germany	Japan
Counted on	2/13	4/10	3/12	3/12	3/14	End of April	5/14	–	3/21	–	5/18	5/26
Number of deaths	Estimated 12,000	428	1,111	191	457	25	257	312	20	225	255	199
Deaths per 100,000 population	(3.96)	1.32	1.05	0.93	0.76	0.57	0.53	0.51	0.48	0.35	0.31	0.16
Cases confirmed in PCR tests	–	All cases	–	–	–	All cases	All cases	260 cases	–	All cases	–	184 cases

* Definition of the number of casualties differs for each country and a simple comparison is difficult.



In 2010, after the pandemic subsided, the government's conference to wrap up its response to the new-type influenza (A/H1N1) issued a set of proposals in a report⁷ to sum up the measures taken against the crisis. Some of the recommendations were relevant to responding to the COVID-19 crisis, and it is worth examining how much of the recommendations in the 2010 report have, in fact, been carried out over the past decade.

• **Creation of a rapid and rational decision-making system:**

The nation's decision-making process, along with which party is responsible for what decisions, should be clarified. Prompt decisions should be made based on an adequate grasp of information from people on the frontlines of medical services and local governments.

• **Relationship with local authorities and preparations:**

Division of roles with local authorities – how far the discretion of local governments extends – should be confirmed.

• **Strengthening the system for managing an infectious disease crisis:**

Organizations and personnel that specialize in controlling an infectious disease crisis, including not just the health ministry but the National Institute of Infectious Diseases, quarantine stations, public health centers and public health institutes, should be

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

substantially beefed up and efforts should be made to build such manpower. The health ministry's organs in charge of controlling infectious disease crises should train, promote and maintain personnel equipped with both specialized knowledge on infectious diseases and administrative capabilities for communication and management.

- **Developing relevant laws:**

Legal grounds for various measures taken in response to infectious diseases should be clarified, including categorization of infectious diseases and the roles played by medical institutions.

- **Surveillance:**

The surveillance systems at the National Institute of Infectious Diseases, public health centers and public health institutes should be strengthened. PCR and other testing regimes at public health institutes should be enhanced and these institutes should be given adequate legal authority.

- **Public relations and risk communication:**

A body with adequate manpower should be set up to deal exclusively with public relations and risk communication with the public. A spokesperson should be appointed to take charge of the job so as to clarify who is responsible for releasing consistent information.

- **Border control measures:**

A new term should be considered to avoid the misunderstanding that "border control" is meant to shut out intrusion across the border completely, and efforts made to widely publicize the objectives of such measures.

- **Public health measures (such as temporary closure of schools and other facilities):**

The national government should present a set of criteria (policy/standards) for requesting the closures of schools and other facilities in accordance with the virulence of the virus, based on which each local government should make its own decision in response to the outbreak situation.

- **Medical care system:**

The government should provide necessary fiscal support to secure staffing at medical institutions, procure the equipment for institutions specialized in accepting high-risk patients of infectious diseases, and promote measures to prevent hospital-acquired infections such as building depressurized rooms for accommodating infected patients. The national and local governments should take steps to promote nurturing infectious disease experts in respective areas (such as doctors qualified to deal with such diseases, administrative officials with public health knowledge on infectious diseases and epidemiologists specialized in such diseases).

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

• **Vaccines:**

The nation's vaccine production regime should be strengthened from a national security viewpoint.

In view of these lessons, the government updated its plan of action to deal with novel influenza in September 2011 in order to enhance its preparedness against an outbreak of a highly pathogenic new strain of influenza. Since the need for take legislative measures was recognized in the process, the government considered legislation defining its response to new-type influenza. In November 2011, a meeting of officials from ministries involved in combating novel influenza and avian influenza compiled a paper summing up the points of the legislative steps needed to cope with novel influenza⁸ and exchanged views with local governments as well as medical, public health and business organizations over the framework of such a legislation. Such efforts resulted in the January 2012 draft of legislative measures to be taken to combat novel influenza.⁹ Based on that draft, the government put together the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, and submitted it to the 180th session of the Diet. The legislation was enacted in April and promulgated the following month.

The 2009 pandemic of the new strain of influenza virus thus led to a fundamental reform of Japan's legal system for managing infectious disease crises. The system was updated following the government's response to the 2014 outbreak of the Ebola virus disease, further improving the nation's preparedness for such a crisis. However, some of the proposals based on the lessons of the 2009 pandemic were never put into action until Japan was hit by the COVID-19 crisis. Even though the legal framework for better responding to infectious disease crises was established in the form of the special measures act, the recommended steps to improve the substance of the government system for responding to such crises were not 100 percent implemented.

As to why the efforts for those improvements did not make much progress, a senior official at the health ministry noted that since the new strain of the influenza virus in the 2009 outbreak was not highly pathogenic and mortality in Japan was relatively low as compared with other countries, a sense of crisis over a pandemic did not spread widely among national and local government officials nor the public. Many people even came to dismiss the threat of an infectious disease because the 2009 pandemic did not cause extensive damage, and only a handful of people shared a real sense of danger against a future pandemic, the official said.

According to officials at the health ministry and public health centers, lessons from the 2009 pandemic were left unattended in the following respects.

• **The division of roles between national and local governments and clarification of the chain of command in responding to an infectious disease crisis:**

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

These issues were never clarified under the Infectious Diseases Control Law or the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, thus hampering the decision-making process and sharing of information.

- **Reinforcing the functions of public health centers:**

On the contrary, the number of public health centers as well as their manpower were reduced over the past decade, posing serious obstacles to their frontline response to the COVID-19 outbreak.

- **Clarifying the legal positions of public health institutes and strengthening the system for holding PCR and other tests:**

Public health institutes have not yet been given a footing under the law, which in turn made the efforts to expand the system for PCR and other tests for the novel coronavirus difficult.

- **The medical service system:**

There were instances in which medical institutions other than those designated to deal with infectious diseases refused to see patients infected with the novel coronavirus, or doctors dealing with COVID-19 patients could not get help from departments other than the ones dealing with infectious diseases at the same hospital.

- **Risk communication:**

The lack of specialists in risk communication and crisis communication prevented the government from holding adequate communication with the public over the COVID-19 crisis, severely affecting people's trust in the government.

1.2. The 2014 Ebola virus disease outbreak in western Africa

Through its response to the 2014-16 outbreak¹⁰ of the Ebola virus disease originating in western Africa, the government made further improvements in its operation to manage infectious disease crises both in terms of domestic policy and diplomatic measures.

The Ebola virus outbreak in the three west African countries of Guinea, Liberia and Sierra Leone spread to Europe and North America via people who had returned from these countries. The high fatality rate of the disease – 50 to 90 percent – fueled a sense of threat from a national security standpoint not only in Western countries but also in Japan. The government expedited cooperation across ministerial divisions to build a crisis response operation, and the capabilities of various sectors that comprise Japan's system to control infectious disease crises were significantly upgraded, said an official at the

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

health ministry.

Specific examples of improvements included better cooperation among the health, Foreign and Defense ministries, coordinated by the office of the assistant chief Cabinet secretary for situation response and crisis management, to build the operation for evacuating infected Japanese, cooperation among the health ministry, the Fire and Disaster Management Agency under the Internal Affairs and Communications Ministry and the National Police Agency for domestic transportation of specimens and suspected carriers, and cooperation among the health ministry, the Justice Ministry and the Foreign Ministry over quarantine and border control measures, as well as the involvement of the National Security Secretariat launched in January that year under the Cabinet Secretariat in parts of the efforts to manage the infectious disease crisis.

Furthermore, medical institutions designated for Category I infectious diseases under the Infectious Diseases Control Law were created in nine prefectures that had previously lacked such institutions,¹¹ while an agreement was reached between then health minister Yasuhisa Shiozaki and Masaru Fujino, mayor of Musashimurayama in Tokyo, in August 2015 to designate the biosafety level-4 (BSL-4) laboratory¹² of the National Institute of Infectious Diseases' Murayama Annex, which had been constructed but not been put in operation, as a facility under the Infectious Diseases Control Law.¹³ Later, as a measure to improve the testing regime to prepare for a rise in infectious disease risk with the increase in inbound tourists for the 2020 Tokyo Olympic and Paralympic Games, the National Institute of Infectious Diseases imported the Ebola and four other viruses in September 2019 to put the BSL-4 facility at full-scale operation.¹⁴

The health ministry – in light of an ironclad rule that an infectious disease crisis must be contained where the outbreak originated – dispatched a total of about 20 experts to western Africa to contribute to the local response to the Ebola outbreak and to build their own experience in dealing with the epidemic, according to an official at the ministry. The government also sent a research mission¹⁵ there to examine the medical response and grasp the local situation so as to use the lessons for its own efforts in building human resources to deal with such a crisis in the future. Based on the outcome of these efforts, the health ministry created the Infectious Disease Emergency Specialist Training Program (IDES)¹⁶ in April 2015,¹⁷ under which it dispatched trainees to the U.S. Centers for Disease Control and Prevention (CDC) and other institutions from the following year. To beef up cooperation between Japan and the United States to control infectious disease emergencies based on the bilateral security alliance, the health ministry also dispatched its officials as liaison with the Crisis Control Bureau in the U.S. Health and Human Resources Department. In October 2015, an infectious disease response team was established in the Japan Disaster Relief Team, its secretariat being located in the Japan International Cooperation Agency.¹⁸

1.3. Other infectious disease emergencies: SARS, H7N9 avian influenza in China, and MERS in South Korea

There are several other cases that influenced Japan's system of managing infectious disease emergencies.

In the SARS outbreak of 2003, there was an instance in which local governments were unable to fully coordinate their efforts to deal with possible cases of infection that spread across several prefectural borders. Therefore, the Infectious Diseases Control Law was amended to clarify national and local government powers over related matters, such as by authorizing the health minister to give instructions to prefectural governors to take steps against a new, unknown infectious disease.^{19, 20}

In 2013, efforts to build the system to manage infectious disease emergencies were expedited under the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response. After China announced the outbreak of the H7N9 avian influenza in March, the Japanese government moved up the implementation of the special measures act to April – whereas it was originally scheduled to take effect in May.²¹ In June, the government's plan of action to respond to pandemic influenza and new infectious diseases was approved by the Cabinet, and guidelines on such measures compiled.

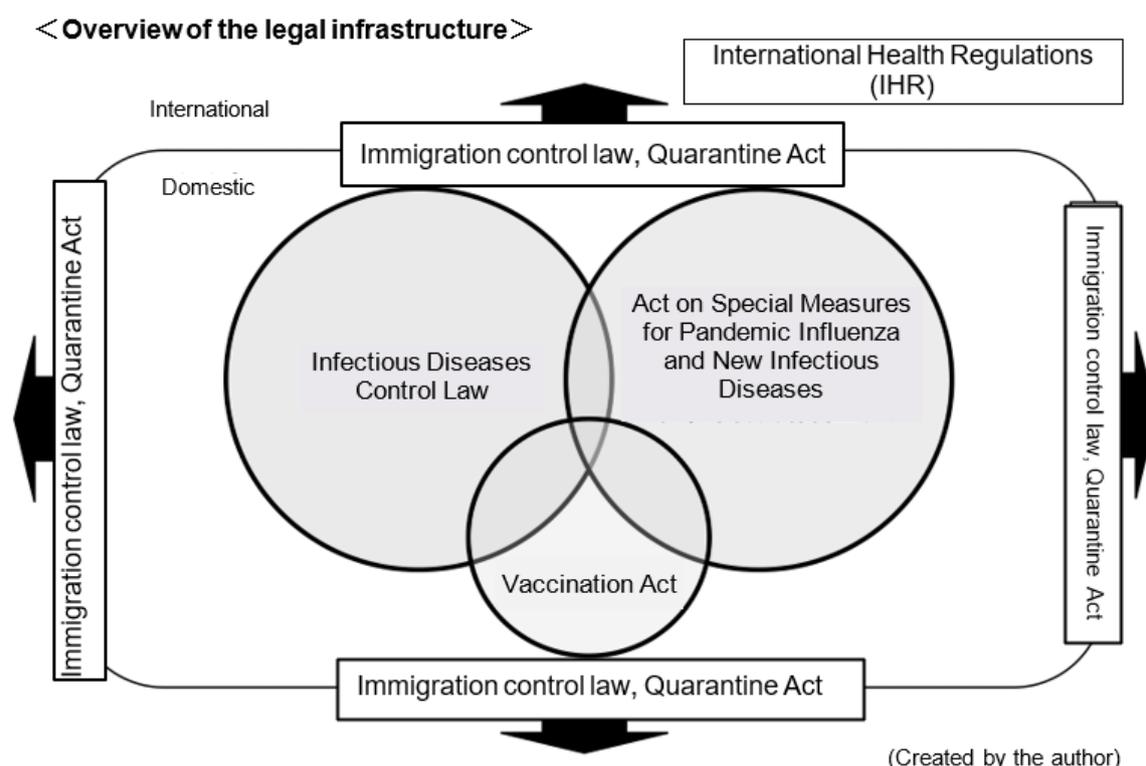
In 2015, a large-scale outbreak of MERS took place in South Korea. The government built up an emergency response operation, but the MERS outbreak did not eventually reach Japan. Looking back on Japan's response at the time, an influential lawmaker in the ruling coalition as well as a health ministry official commented that Japan did not try to learn from the MERS experience in South Korea because it was deemed somebody else's problem.

In the following parts of this chapter, we examine the legal and organizational infrastructure that had been developed in Japan for controlling infectious disease crises through its experience with these emergencies²² – by the time the nation was hit by the novel coronavirus pandemic.

2. Legal infrastructure

In Japan's legal system on controlling infectious disease crises, there are four key legislations – 1) the Infectious Diseases Control Law; 2) the Quarantine Act; 3) the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response and 4) the Immunization Act. Furthermore, the Immigration Control and Refugee Recognition Act, which plays a key role in preventing the spread of infections from overseas, and International Health Regulations (IHR), the foundation of

international law on managing infectious disease emergencies, hold vital functions. This section, however, will focus on the Infectious Diseases Control Law and the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, which had a major impact on Japan's response to the COVID-19 crisis.²³



2.1. The Infectious Diseases Control Law

2.1.1. Categorization of infectious diseases according to the degree of danger

Japan's measures to control infectious disease crises are implemented under a system based primarily on the Infectious Diseases Control Law, whose objective is to prevent the outbreak and spread of an infectious disease, thereby improving and promoting public health.

Under the law, infectious diseases are classified into Category I to V infectious diseases, pandemic influenza (novel influenza or re-emerging influenza),²⁴ designated infectious diseases²⁵ and new infectious diseases.²⁶ The law classifies known infectious diseases in accordance with the degree of danger each poses, as measured by its infectivity

and the severity of the possible conditions of infected patients – from the most dangerous Category I to the least dangerous Category V – thus differentiating the measures that can be taken in response to how dangerous the disease is. For example, it sets the regulations for hospitalization and treatment at medical institutions designated for specified, Class I or Class II infectious diseases for each category.

2.1.2. Designated and new infectious diseases – flexible tools for crisis response

Designated and new infectious diseases are categories that are both associated with crisis management, but care needs to be taken over the distinction between the two categories when a new infectious disease crisis emerges. Designated infectious diseases is a category used when the pathogen of the disease has been made known, whereas a disease is classified as a new infectious disease when its viral pathogen has not been identified.

The designated infectious diseases categorization is a flexible scheme in that when a new disease is classified as a designated infectious disease under the Infectious Diseases Control Law, you can pick and choose from specific measures that apply to Category I to V infectious diseases as well as novel influenza under the law to “customize” the treatment for the disease. Several health ministry sources said it is a very useful policy tool.

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Outline of key measures based on the Infectious Diseases Control Law (whether applied or not by ordinance)

	Designated infectious disease	Category-I infectious disease	Category-II infectious disease	Category-III infectious disease	Category-IV infectious disease	Category-V infectious disease	Pandemic influenza
Diseases under the category	Novel coronavirus disease	Ebola, plague, Lassa fever, etc.	Tuberculosis, SARS, avian influenza (H5N1), etc.	Cholera, shigellosis, typhoid, etc.	Yellow fever, avian influenza (other than H5N1), etc.	Influenza, chlamydia, syphilis, etc.	Novel influenza, re-emerging influenza
Name defined by	Ordinance	Law	Law	Law	Law/Ordinance	Law/Ministerial ordinance	Law
Application to suspected patients	●	○	○ (Ordinance-specified diseases)	—	—	—	○
Application to asymptomatic carriers	■	○ (immediately)	—	—	—	—	○
Reporting by doctors of diagnosis/death	●	○	○ (Immediately)	○ (Immediately)	○ (Immediately)	○ (Within 7 days)	○ (Immediately)
Reporting by veterinarians/measures concerning animal imports	—	—	○	○	○	—	○
Sentinel survey of patient information, etc.	—	○	△ (For some suspected cases)	△ (For some suspected cases)	△ (For some suspected cases)	○	—
Implementation of active epidemiological investigation	●	○	○	○	○	○	○
Recommendation/ implementation of health examination	●	○	○	○	—	—	○
Restriction on employment	●	○	○	○	—	—	○
Recommendation/ enforcement of hospitalization	●	○	○	—	—	—	○
Removal/collecion of specimen	●	○	○	—	—	—	○
Disinfection of contaminated sites and disposal of property	●	○	○	○	○	—	○
Extermination of rats, insects, etc.	●	○	○	○	○	—	○*
Restricting use of domestic water	▲	○	○	○	—	—	○*
Restricting/ banning entry to buildings and traffic control	▲	○	—	—	—	—	○*
Disclosure of the outbreak and measures taken	▲	—	—	—	—	—	○
Request for reporting of health condition/self-restraint in outings, etc.	▲	—	—	—	—	—	○
Reporting on development of the situation by prefectures	▲	—	—	—	—	—	○

●: Applied when it was designated as such (implemented on Feb. 1) ■: Applied in the 1st amendment (implemented on Feb. 14) ▲: Applied in the 2nd amendment (implemented on Mar. 27)

*Applied if so decided under an ordinance based on Article 44-4 of the Infectious Diseases Control Law

Source: Reference material to government decision on future COVID-19 measures adopted by the government headquarters on Aug. 28, 2020

2.1.3. Relationship between national and local governments under the Infectious Diseases Control Law – ambiguities in the chain of command

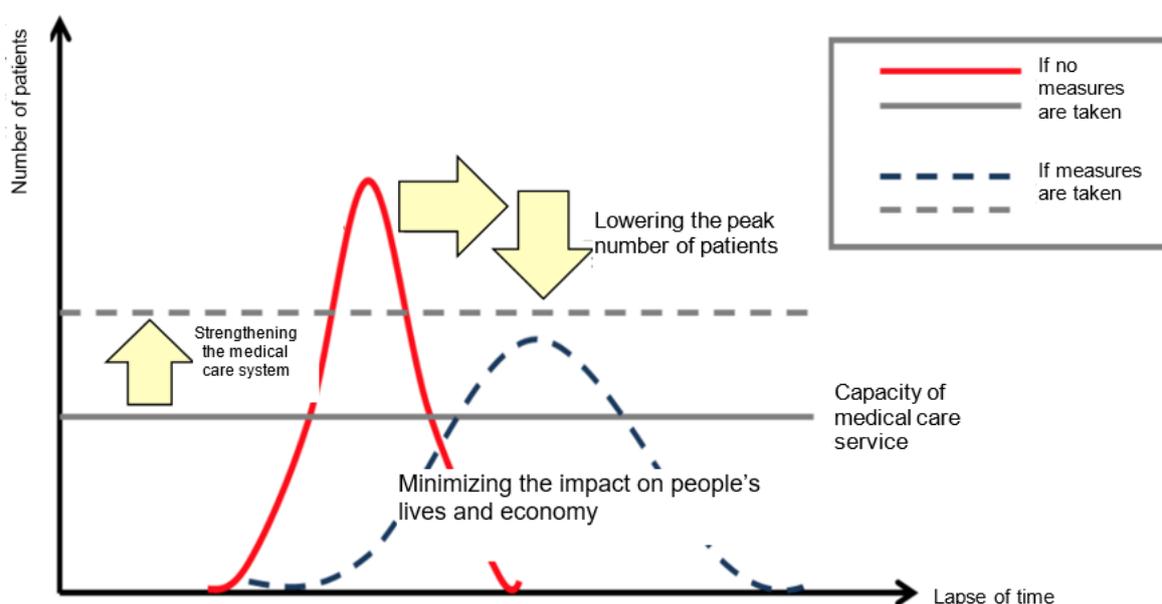
In an infectious disease crisis, the measures to be taken must be fine-tuned in accordance with the specific situation of the emergency. Therefore, the Infectious Diseases Control Law stipulates that prefectural governors primarily respond to the on-site situation in areas where the outbreak has occurred.²⁷ It is the governors of prefectures who are to carry out the various measures provided for under the law. At the same time, an infectious disease crisis can potentially threaten the very survival of the whole nation,²⁸ and the national government is ultimately responsible for controlling the crisis. Measures against a crisis that crosses prefectural borders need to be taken in an integrated manner. Therefore, the Infectious Diseases Control Law provides the health minister with the powers to give instructions to prefectural governors under certain conditions.²⁹ However, the law does not provide for steps to be taken when the governors refuse to comply with instructions by the health minister.

It is the national government and the heads of regional public health centers that are basically responsible for the measures taken under the Infectious Diseases Control Law, said a senior official at the health ministry. The problem is the ambiguities over the chain of command between the national government – which effectively makes decisions on measures to deal with an infectious disease crisis – and the regional public health centers – which carry out the measures on the frontlines of combating the pandemic, the official pointed out, expressing particular concern over the “very delicate” relationship between the state and prefectural governors as well as designated major cities and special wards that have public health centers under their jurisdiction. A lawmaker in the ruling coalition also noted that the Infectious Diseases Control Law does not make clear the responsibility of the national government in an emergency nor provides for a specific chain of command. To improve the preparedness against an infectious disease crisis, the relationship between parties that implement measures against infectious diseases – the national government, prefectures and municipalities as well as public health centers – needs to be sorted out and it be made clear that the national government takes the central responsibility for and leads the efforts by other parties to manage the crisis, and the chain of command must be clarified not only between national and local governments but between local authorities.

2.2. The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response

2.2.1. The special measures act and the Infectious Diseases Control Law – both integral parts of measures for infectious disease crisis management

The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response targets novel influenza and re-emerging influenza as well as new infectious diseases that are feared to spread quickly across the country. What is essential to minimizing the damage (in particular the death toll) from a pandemic of novel influenza and other viruses is a strategy to lower the peak of total number of patients and delay the arrival of that peak, thereby keeping the burden on the medical care system from a surge in patient numbers within allowable limits at any time during the pandemic. The special measures act provides for concrete measures to carry out this strategy and thereby aims to protect the lives and health of the people and minimize the effect on people's daily lives and the economy.



Source: The government's action plan on measures against pandemic influenza and new infectious diseases

Medical measures stipulated under the Infectious Diseases Control Law, such as hospitalization of patients and health examination of and mandatory reporting on suspected carriers, as well as steps against specific sources of infection like disinfecting contaminated buildings, are not enough to cope with a pandemic-class infectious disease crisis in which the increase in patient numbers outpaces the decrease in infections through

medical measures. Unless the growth in infection cases is contained,³⁰ it will become increasingly tough to determine the epidemiological relationship between individual patients, making it more and more difficult to cope with the crisis. If such a situation emerges, the special measures act provides for public health (or non-medical) measures targeting the general public – not just the infected people – like a government request for people to stay home, restrictions on the use of such venues as schools, social welfare and entertainment facilities, and curbs on organizing public events.³¹ In dealing with a pandemic-class infectious disease emergency, both the medical measures specified under the Infectious Diseases Control Law such as hospitalization/isolation and treatment of patients and the public health measures that the special measures act provides for, such as social distancing, are integral to the efforts to combat the crisis.³²

2.2.2. Specifying public health measures – the government's action plan and “soft” lockdown

The special measures act has five main features, including the public health measures mentioned above:³³

- 1) Thorough preparedness such as the government's action plan, business continuity plans, emergency stockpiling and training;
- 2) Whole-of-government approach to dealing with an emergency: It calls for establishing a government headquarters led by the prime minister and compiling a crisis response strategy (basic action policy) for the whole government;
- 3) Public health measures targeting the general public;
- 4) Securing surge capacity (reserve capacity that can be mobilized to deal with an emergency) of medical services, such as opening ad hoc medical facilities; and
- 5) Strategy for vaccinating the entire population: vaccination of residents by municipalities and vaccination of specified targets based on priorities.

1) Thorough preparedness

As part of the efforts to improve its preparedness, the government put together its plan of action based on the special measures act, and compiled a guideline based on the action plan. The government action plan provides for necessary measures to be taken at each stage (timeline) of an outbreak, and the guideline specifies the details of the measures. The action plan and the guideline comprehensively list the crisis response measures and show the options of steps that can be taken – so that they can deal with an infectious disease of either highly pathogenic or not so pathogenic nature – given that it is impossible to foretell the degree of pathogenicity of a future infectious disease crisis.³⁴

The special measures act also requires the national and local governments to

stockpile anti-virus medicines and pre-pandemic vaccines, as well as necessary goods and materials including medical gear such as personal protective equipment. However, a senior Cabinet Secretariat official noted that government preparedness was insufficient, since it did not have a grasp of the goods and materials kept at each of the prefectures and the level of their stockpile, and the total volume of the nation's stockpile was far smaller than was needed across the country. Given that countries around the world compete with each other to secure necessary supplies during a pandemic, the government needs to secure at least enough stockpile to barely last when a crisis breaks out in the future, and seriously consider surge capacity in goods supply by weighing how to quickly increase domestic output capacity in an emergency, the official said.

2) Whole-of-government approach in an emergency

In the case of an emergency over the outbreak of pandemic influenza or new infectious diseases, the government will set up its headquarters led by the prime minister and, after consulting an advisory board of experts, compile a basic policy to respond to the crisis, based on the action plan put together in normal times. Prefectures and municipalities will carry out measures to cope with the emergency based on the national government's basic policy and its action plan. While the government's action plan is like a menu that lists all possible measures to be taken against a crisis, the basic policy is like an order slip on which individual items are chosen from the menu in response to the nature of the crisis at hand.

3) Public health measures targeting the general public; 4) Securing surge capacity of medical services and 5) vaccination strategy for the entire population

In case domestic infections of pandemic influenza and new infectious diseases expand and spread quickly nationwide to the extent that people's lives and the national economy are gravely affected,³⁵ the prime minister is empowered to declare a state of emergency³⁶ and specify the period and the areas for which the steps based on the declaration³⁷ are to be taken. Only after such a state of emergency is declared can the government implement measures that restrict private rights, such as public health measures, vaccination of residents by municipalities and opening of ad hoc medical facilities. If the crisis involves a virus of extremely high pathogenicity that could potentially threaten the very survival of the nation, the law assumes that the need may arise for prioritizing the vaccination of the younger generation for the sake of the long-term survival of the Japanese society, and the government is to make such decisions in its basic policy.

Under the act, the state of emergency can last for up to two years, because it is deemed to take one to two years³⁸ before a majority of the people in Japan acquire immunity against novel influenza, thus obtaining herd immunity, and the disease morphs into a seasonal flu. When emergency measures become no longer necessary, the prime minister declares an end to the state of emergency. Unlike the "lockdowns" of cities enforced in many Western countries in the COVID-19 crisis, the public health measures

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

based on the declaration of a state of emergency under the special measures act comprise a “request” or “instructions” by the government calling for voluntary restraint in people’s activities and behaviors or restricting the use of schools, social welfare facilities or entertainment venues as well as the organizing of public events. Therefore, the measures are called “soft lockdowns” that are not backed up by penalties for non-compliance.

2.2.3. Were the public health measures under the special measures act enough?

COVID-19, which was neither a novel influenza or deemed to be a new infectious disease under the act, was not initially covered by the special measures act. When the March 13 amendment that attached a special supplement to the legislation included the novel coronavirus among the targets of various measures provided for by the act, the government had the opportunity to apply the special measures act for the first time against a pandemic. However, senior officials in the Cabinet Secretariat and the health ministry said the experience with COVID-19 exposed the following problems of the special measures act.

- The public health measures under the special measures act were all based on a governments “request” and did not necessarily guarantee that the measures would have the intended impact.
- The prime minister had the power to “adjust” local governments’ measures with prefectures governors (under Article 20 of the special measures act). However, since it falls short of a clear power to command and control, there is no clear legal answer as to what can be done if the national government and prefectural governors disagreed until the very end (or if the governors refused to comply with government instructions under the act’s Article 33).
- Unlike the designated infectious disease system under the Infectious Diseases Control Law, the special measures act was not well crafted, as illustrated by the lack of provision for adding a new infectious disease after its enactment.
- Since drawing up the special measures act was subconsciously affected by the threat perception of the 2009 pandemic as a “novel influenza of low pathogenicity,” its policy assumptions and training scenarios were biased instead of preparing for all possible scenarios or infectious diseases of any degree of virulence and infectivity. As a consequence, gaps emerged between the act’s provisions and what was needed in responding to COVID-19.

2.2.4. What lay behind the problems of the special measures act

Among the problems of the special measures act highlighted in its application for COVID-19, we examine 1) why the government is unable to enforce public health measures beyond weak “request”-based measures and 2) why the national government lacks a strong power of command over local governments.

1) Why the government is unable to enforce public health measures beyond weak “request”-based measures

The government can only implement weak request-based public health measures because of a misguided assumption that people would voluntarily impose self-restraint on their activities and behavior, and that such self-restraint would be needed only for a short period.

As clearly shown in the explanatory notes given to each article of the special measures act following its enactment, the government assumed that, in the first place, people would place voluntary restraint on their activities under a state of emergency. “It is believed that many of the public would refrain from going out and their activities would be subject to some form of restriction in an emergency like a major outbreak of novel influenza,” the notes say.³⁹

During the Diet deliberations on the special measures act,^{40,41} Masaharu Nakagawa, then minister for anti-disaster measures under the Democratic Party of Japan administration, said the act assumed public health measures taken against novel influenza would be in place for only one to two weeks – because an incubation period for seasonal flu generally lasts for two to five days and it takes about seven days for a patient to be cured of the disease after the onset of its symptoms.⁴² Nakagawa also told the Diet that the act assumed that people would naturally refrain from using public facilities in an emergency. Hitoshi Goto, senior vice minister of the Cabinet Office, also remarked that public events would voluntarily be canceled in an emergency and that such an emergency would only be temporary.

Responding to doubts as to whether the measure could be effective because the law did not provide for punishment against those who did not comply with government requests or instructions,⁴³ Nakagawa said public announcements of government requests or instructions for canceling public events would lead people not to go to those events, adding “We expect that people would voluntarily cooperate” with the government’s steps. The minister also told the Diet that it was “not realistic” to effectively prohibit people’s movements because that would necessitate an operation involving the use of “an extremely large-scale force” to enforce a blockade, thus clearly ruling out “lockdown” measures as introduced in some countries during the COVID-19 crisis.

These statements and notes indicate that members of the administration that

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

enacted the special measures act believed that people would voluntarily exercise self-restraint in an emergency, and counted on people's goodwill and sensible behavior that they would naturally cooperate when the government issued "requests" or "instructions." They also assumed that such an emergency would only last one to two weeks. However, the state of emergency over the COVID-19 crisis lasted for nearly two months, and likely due to people's "fatigue of self-restraint," there were instances in which, according to a senior health ministry official, requests and instructions by the government were not enough to make sure the measure would have the intended impact.

2) Why is the national government's power of command over local government weak?

Under the special measures act, the national government (or the prime minister) has the power to make "comprehensive adjustments"⁴⁴ with local governments (or prefectural governors and other parties). The national government is only empowered to make the adjustments "by way of advice, request or recommendations" and two-way communication between the contesting parties,⁴⁵ instead of unilateral orders from the national to local governments.

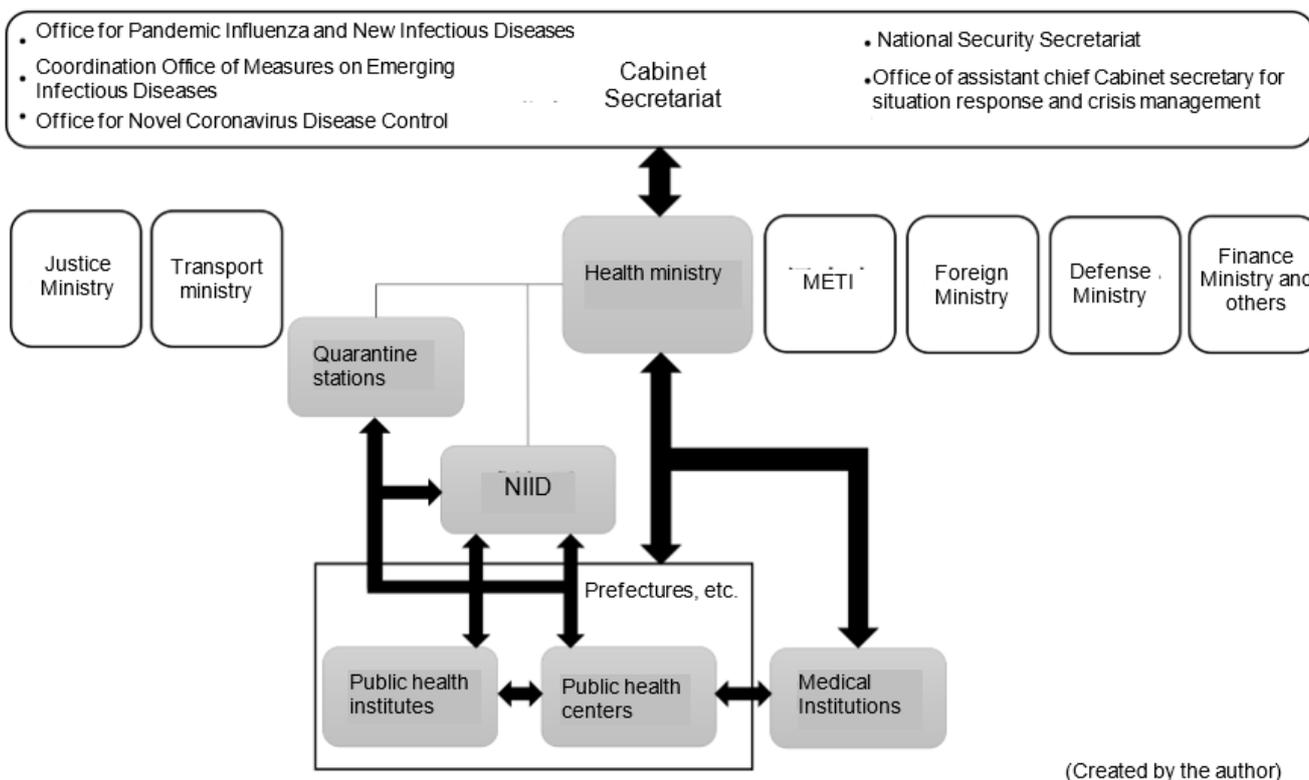
In a pandemic-class infectious disease crisis, however, in which infections spread across prefectural borders and the failure of a local government to take the necessary steps could potentially expand the damage to other areas and lead to nationwide social confusion, multiple prefectures must coordinate their efforts and the whole nation needs to make an integrated response. Therefore, if "comprehensive adjustments" fail to work, the prime minister has the power to instruct prefectural governors,⁴⁶ and prefectural governors have the authority to issue instructions to mayors of cities, towns and villages.⁴⁷

Still, it is left unclear what could be done if the governors refuse to follow the prime minister's instructions. In the deliberations on the special measures act,⁴⁸ Senior Vice Minister Goto of the Cabinet Office said the act provides for a "cautious" two-step procedure in the national government's power to instruct local authorities – under which the "adjustments" under Article 20 are first requested and, when measures requested are not carried out, the national government would resort to "instructions" under Article 33 as necessary. The act did not provide for steps to enforce the request or instructions, such as penalties for non-compliance, based on the expectation that the system would be implemented "with sufficient consideration of voluntary actions and a sense of mission" on the part of local governments,⁴⁹ Goto told the Diet at the time. As part of the measures to beef up the nation's preparedness against a future crisis, it is worth considering what steps should be taken, from the viewpoint of the nation's crisis management, if the governors refused to follow the prime minister's instructions.

3. Organizational infrastructure

In managing an infectious disease crisis, whose impact extends over the jurisdictions of various government ministries, the Cabinet Secretariat is responsible for comprehensively adjusting the policies of the government as a whole, while the health ministry plays the central role in the execution of the measures by such bodies as the quarantine stations, the National Institute of Infectious Diseases, public health centers, public health institutes and medical institutions. The division of roles between the Cabinet Secretariat and the health ministry – comprehensive policy adjustments between government ministries on the one hand and planning and implementation of actual measures on the other – also reflects the different laws that regulate the functions they serve – the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response law for the former, and the Infectious Diseases Control Law, the Quarantine Act and the Immunization Act for the latter.

< Overview of the organizational infrastructure >



3.1. Cabinet Secretariat's Office for Pandemic Influenza and New Infectious Diseases Preparedness and Response/Coordination Office of Measures on Emerging Infectious Diseases

The Cabinet Secretariat's Office for Pandemic Influenza and New Infectious Diseases Preparedness and Response (influenza office), which takes charge of the comprehensive adjustment of policies from the entire government taken under the special measures act, had a staff of only about 20 until the outbreak of the novel coronavirus disease, according to a Cabinet Secretariat official. Its history dates back to July 2009, when it started out as a team of eight members. When the Ebola virus disease broke out in 2014, the office served as a basis for setting up the government team dealing with the disease. Later, in response to the growing international threat perception over the antimicrobial resistance (AMR) of pathogens, and the spread of the Zika virus disease in Latin American countries in 2015, the Coordination Office of Measures on Emerging Infectious Diseases was also established in the same year. Thus, the Cabinet Secretariat's function in dealing with infectious diseases, with the influenza office at its core, was given new titles and roles along with the evolution of both domestic and international threats of infectious disease crises – with its manpower regime effectively left unchanged.

The influenza office serves the clerical functions for various government conferences provided for under the special measures act. Specifically, it organizes the council of experts under the conference of Cabinet ministers responding to novel influenza and new infectious diseases, as well as a board of advisers on the government's basic policy, seeking the opinions of members of the council and the advisory board. The office is also responsible for holding annual drills for launching the government's headquarters dealing with a pandemic crisis⁵⁰ as required by the special measures act.

Some health ministry officials said that the enactment of the special measures act, which specified the actions that need to be taken in case of an emergency, is the biggest achievement in upgrading the nation's preparedness for an infectious disease crisis. However, the above-mentioned drills are carried out in the form of a scripted demonstration, instead of practical training in which participants look for solutions to a crisis situation and work together to reach a consensus. The drills have become rigidly routine activities, based on a scenario that merely followed the example of an avian influenza outbreak that happened in the past, an official said.

3.2. Infectious disease crisis control regime at the Health, Labor and Welfare Ministry

3.2.1. Tuberculosis and Infectious Diseases Control Division/Infectious disease crisis intelligence

At the Health, Labor and Welfare Ministry, the Tuberculosis and Infectious Diseases Control Division of the Health Service Bureau is responsible for measures under the Infectious Diseases Control Law, and plays the core role in measures to manage infectious disease crises. The division is at the center of regular efforts to gather information on infectious diseases of unidentified sources through various channels, including local governments, the surveys taken by the Infectious Disease Surveillance Center of the National Institute of Infectious Diseases, quarantine stations, international institutions such as the World Health Organization, Japan's overseas missions, as well as information relayed from the WHO to member governments based on the International Health Regulations. Members of the division consult and work with experts at the National Institute of Infectious Diseases and other institutions on information concerning infectious disease emergencies and engage in the actual response. The division also shares information with a network of quarantine stations, which are the first responders to infectious disease crises that originate in other countries.

3.2.2. Chief medical and global health officer as commander in infectious disease crisis management

The report by the Health Care 2035 council launched by the health ministry in 2014 called for the creation of a new position of chief medical officer – who gives comprehensive advice on health care policies to the prime minister and the health minister based on technical and public health expertise.⁵¹ Based on this proposal, the 2017 amendment to the law regulating the Health, Labor and Welfare Ministry created a vice minister-level position of chief medical and global health officer,⁵² and Yasuhiro Suzuki, then director-general of the ministry's Health Insurance Bureau, was appointed to the post.

Suzuki played a central role in running the health ministry's headquarters dealing with the COVID-19 crisis. When the health ministry dealt with the 2009 novel influenza pandemic, Hirozo Ueda, as chief of the Health Service Bureau, which oversees the response to infectious disease crises, had to take charge of everything from answering questions in Diet interpellations to running the ministry's headquarters and giving instructions to officials on the frontlines dealing with the pandemic across the country – he was too busy to go home and had a bed brought in to the bureau chief's office to stay

overnight. This time, Health Service Bureau chief Masanori Miyazaki attended the Diet sessions to answer the questions over the novel coronavirus, while Suzuki took part in the prime minister's liaison conference every day to give briefings on technical and other issues. Such a clear division of roles between Suzuki and Miyazaki was a big improvement in the ministry's response to the latest crisis, said a senior official at the ministry. Some of the staff at the Prime Minister's Office complained that Suzuki took too much time on the briefing, giving lengthy explanations using dozens of PowerPoint sheets despite the urgency of the situation, and was so slow in giving answers to queries at the conference, but others said they appreciated the presence of the chief medical and global health officer as well as Suzuki's expertise and devotion to the job.

3.3. Quarantine stations

The 110 quarantine stations set up at major ports and airports across the country⁵³ fall under the jurisdiction of the Office for Administering Quarantine Stations under the Planning Division for Environmental Health and Food Safety in the ministry's Pharmaceutical Safety and Environmental Health Bureau.⁵⁴

The operation at quarantine stations that relates to infectious disease crisis management includes quarantine and checking tests held under the Quarantine Act. The quarantine stations perform quarantine on all entrants to Japan, while also alerting people entering or leaving the country to the danger of infectious diseases by putting up posters and distributing leaflets at ports and airports. The quarantine officers use thermography and other tools to examine whether entrants have a fever, and check the health conditions and travel history of people who have shown such symptoms as fever and coughing. They give tests as necessary on people suspected of being infected with a quarantinable infectious disease under the act, and possibly refer those people to medical institutions. They also work with medical institutions designated for the treatment of infectious diseases as well as public health centers to isolate entrants or restrict their activities.

During the COVID-19 crisis, the testing demand at quarantine stations nationwide exploded as the government tightened entry restrictions.⁵⁵ As a result, the workload of quarantine officers exceeded their manpower capacity, even hampering the operation of airports. It was yet another example that highlighted the need to plan for surge capacity in times of an infectious disease crisis as part of efforts to enhance preparedness for an emergency.

3.4. The National Institute of Infectious Diseases

The National Institute of Infectious Diseases serves the core technical functions of Japan's infectious disease crisis management. Its roughly 500-strong staff engage in 1) the testing and examination of pathogens; 2) surveillance; 3) national testing of vaccines; and 4) various research and development activities. Of these functions, 1) and 2) are particularly relevant to the efforts to control an infectious disease emergency.

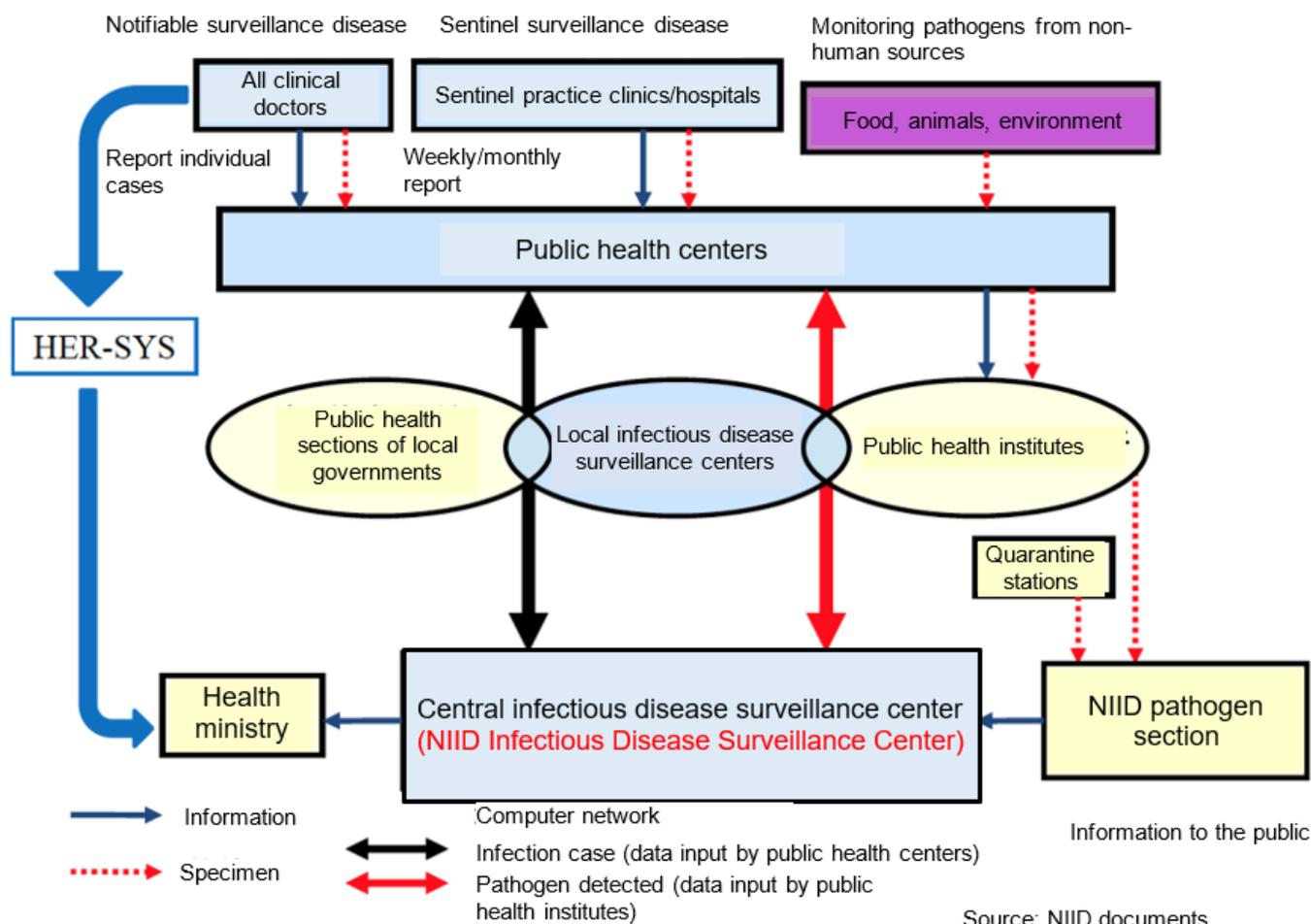
1) Testing and examination of pathogens

The National Institute of Infectious Diseases plays an essential role in establishing the system of administrative tests on infectious diseases, developing the PCR testing methods for unknown pathogens and working with public health institutes and quarantine stations nationwide for the precision management of tests, such as standardizing the technological foundations for pathogen tests and examinations held across the country. In particular, the institute's biosafety level-4 laboratory, the only such facility in Japan, serves one of the most important functions in the efforts to control infectious disease crises.

2) Surveillance

The Infectious Disease Surveillance Center (IDSC) at the institute is at the core of Japan's infectious disease surveillance system. Surveillance is carried out in collaboration with regional infectious disease surveillance centers set up in each of the 47 prefectures (basically at public health institutes), with the IDSC's Central Infectious Disease Surveillance Center, established in accordance with the survey outline⁵⁶ as provided for under the Infectious Diseases Control Law, working as the hub of operations. Surveillance covers information about infection cases and the pathogen. Information on infected patients (such as diseases requiring notifiable disease surveillance or sentinel surveillance⁵⁷) is reported by medical institutions to public health centers, which in turn will immediately input the data into the National Epidemiological Surveillance of Infectious Diseases (NESID). The information will be tallied by the regional and central infectious disease surveillance centers, and publicly released⁵⁹ by the Central Infectious Disease Surveillance Center in its weekly report.⁵⁸

Infectious disease surveillance (patient information/pathogen) system



Specimens collected at medical institutions are supplied to the public health institutes via public health centers for pathogen testing. (The pathogen team at the National Institute of Infectious Diseases will perform the test if specifically requested by the public health institutes). The results will also be tallied by the local and central infectious disease surveillance centers and released⁶¹ in a monthly report⁶⁰ by the Central Infectious Disease Surveillance Center.

The National Institute of Infectious Diseases, in order to ensure the minimum standards of active epidemiological investigation held by public health centers nationwide, compiles a manual for holding these surveys for each infectious disease to support the operation of public health centers.

According to a member of the government's Expert Meeting on the Novel Coronavirus Disease Control, reporting by medical institutions to public health centers on infectious disease patients followed archaic procedures – in which the reports were filed in handwritten fax sheets and staff at public health centers manually fed the information into the NESID system. This posed a serious problem for the infectious

disease crisis management efforts – an inability to share the nationwide situation of infections on a real-time basis (you had to wait for the weekly or monthly report for the information). Since the data was manually fed into the system by staff at public health centers, reporting was often clogged and delayed when the number of infected patients surged. In many other nations, including developing countries, specialist surveillance officers are stationed at each stage of the information flow on infectious diseases from medical institutions to local government offices to ensure a system of prompt gathering, analysis and sharing of information. Japan lacks such expert manpower, both in quantitative and qualitative terms.

Of the various types of surveillance, particular note should be made of suspected cases surveillance. This is aimed at detecting patients showing symptoms similar to grave conditions of an infectious disease for a public health intervention in the early stages. Since the number of inbound tourists was anticipated to increase sharply as the nation hosted the 2020 Tokyo Olympic and Paralympic Games – thereby increasing the risk of an infectious disease crisis, a new system of more effective suspected cases surveillance that focused on cases of serious symptoms with higher public health impact was introduced⁶⁴ in April 2019.⁶³ This system contributed to detecting Japan's first case of the novel coronavirus infection, and a health ministry official called it a good example of a measure readied in anticipation of an event actually bearing fruit.

Meanwhile, the National Institute of Infectious Diseases has for years been subjected to cuts in budget and manpower. Warnings have been repeatedly issued about the lack of adequate funding and support for the institute in the annual review of various research institutions by independent parties,⁶⁵ such as that “the sheer number of researchers is far too small to respond to all kinds of infectious diseases” and that the institute “should be removed from the targets of the plan to reduce the number of government officials” (in 2010);⁶⁶ that “an inability [of the institute] to take timely action in case of a mass outbreak of an infectious disease will be a grave problem” (2013);⁶⁷ and that the whole institute “will be exhausted unless its activities are backed up by fiscal and manpower support” (2016).⁶⁸ According to a member of the expert panel, the annual budget for the institute in fiscal 2018 was reduced to about 60 percent of some ¥10 billion earmarked in fiscal 2009, and the number of its personnel cut from 383 to 361. “Due to the budget shortage, the institute has reduced the number of ceiling lights in corridors to save on electricity, and it's always so dark. And one of a pair of elevators has been shut down,” said a health ministry official.

3.5. Public health centers

3.5.1. Functions of public health centers in infectious disease crisis management

Public health centers are set up by prefectures, major designated cities and other core cities under the Community Health Act, and play central roles in public health

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

measures taken to manage an infectious disease crisis. The operation of public health centers is divided into the areas of personal health – such as infectious disease control, intractable diseases, and mental health – and environmental health – including food sanitation and medical surveillance. Personal health services closely related to local community residents such as maternal and child health, health promotion, healthcare for the elderly and vaccinations mainly belong to municipal-level health centers, instead of the public health centers at prefectural levels. It is deemed desirable that the head of a regional public health center, who is supposedly familiar with the area's public health and medical services, also takes charge of the local government's infectious disease crisis management system.⁶⁹

An official with a public health center said that regional public health centers are not testing organizations. The main functions of public health centers under the Infectious Diseases Control Law are preventing the spread of infections through such steps as recommending hospitalization of infected patients following reports of cases from medical institutions and epidemiological investigation, as well as serving as a guide to supplying adequate medical services, the official said and cited the following concrete examples:

- In responding to the emergence of suspected infection cases: securing medical institutions that can examine the patients, registration of the suspected cases, receiving and transporting specimens for the public health institutes
- In responding to confirmed cases of infections: Engaging in active epidemiological investigation, identifying the sources of infection and people who were in close contact with the infected patients, and monitoring the health of the close contacts
- Responding to consultations from local residents and business operators
- Collaboration with local medical associations and hospitals and handling their inquiries
- Adjustments for hospitalization and medical treatment (such as recommending the hospitalization of patients under the Infectious Diseases Control Law)

Of particular importance is the active epidemiological investigation.⁷⁰ In the first step of the surveillance system,⁷¹ the public health centers receive reports from medical institutions on new infection cases, but such passive information alone is not enough to fully grasp the situation as required to take steps to contain the spread of infection. In the active epidemiological investigation, staff at public health centers proactively go out to obtain information that cannot be gained through the report from medical institutions. Through interviews on the history of the infected patients' movements and activities as well their family situation, they collect detailed information such as infection routes, the process of change in the patients' conditions and treatment they received, clinical

information on patients with serious conditions and their pre-existing illnesses so as to use the data to identify the pathogen and its infectivity and other features. The investigation also seeks to prevent the spread of the infection by tracing the patients' contact with others and grasping the overall picture of the infection, including infection sources, the extent of the spread of infection and its trend, thereby cutting off the chain of infection.⁷²

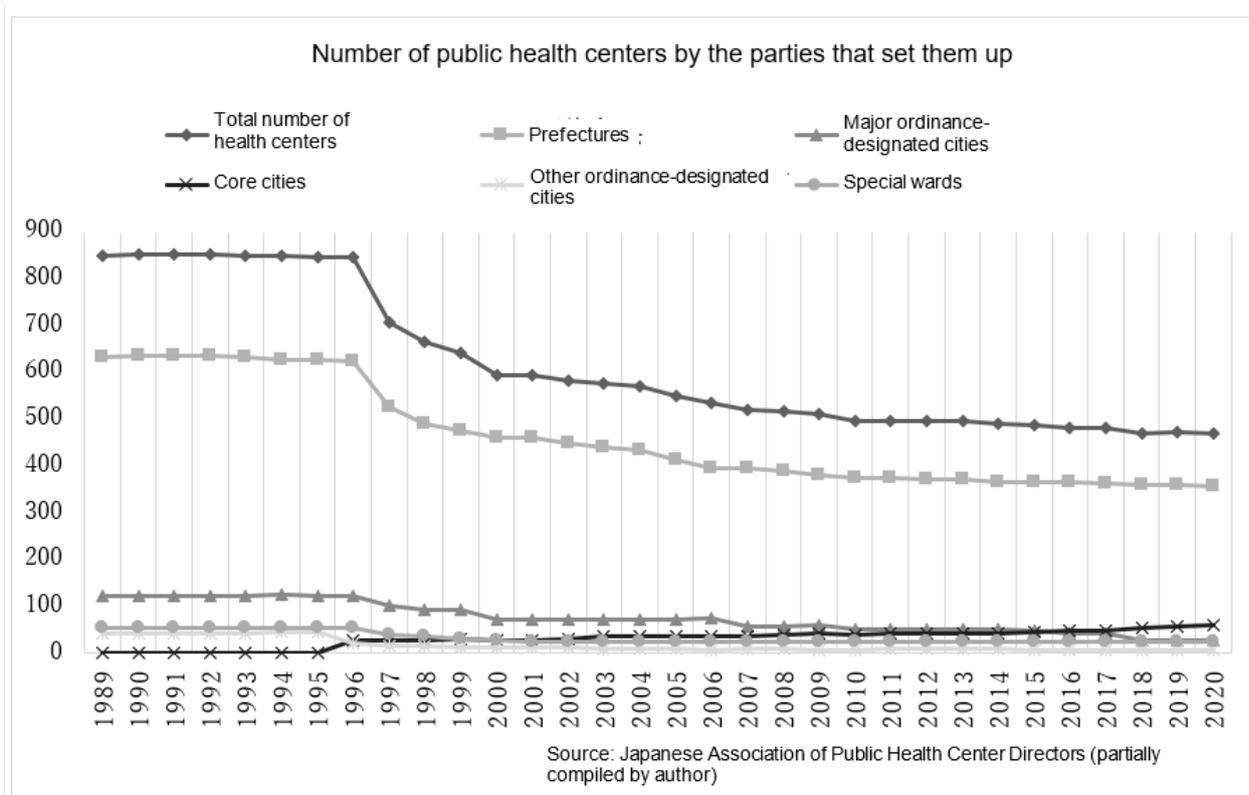
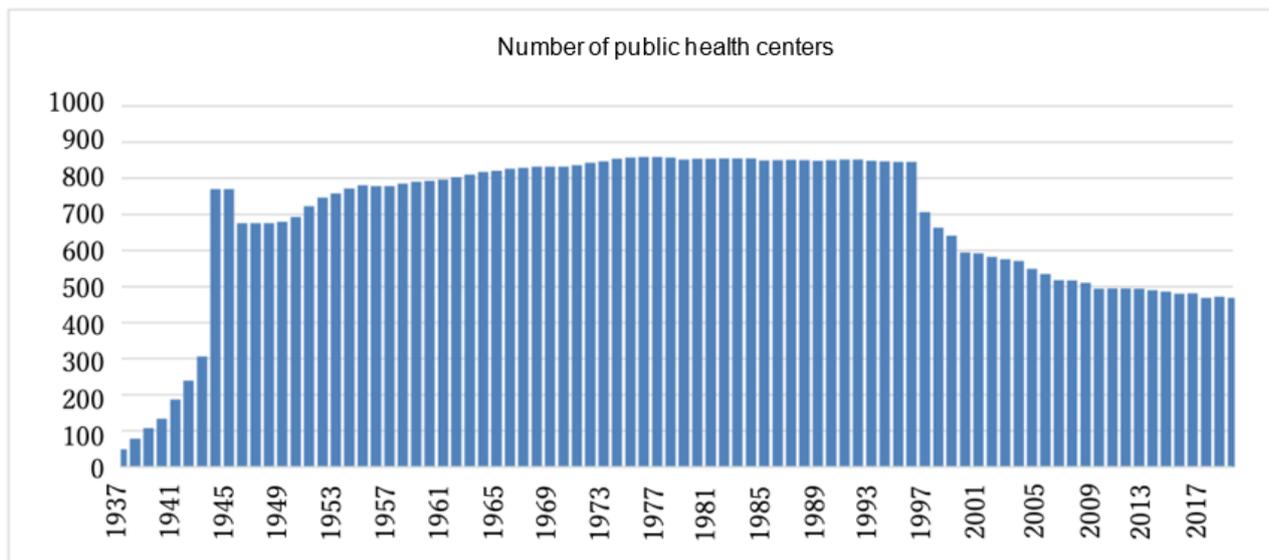
3.5.2. The history of public health centers

The history of public health centers started with Japan's wars in the modern era. The Health Center Law was enacted⁷³ in April 1937 – three months before the Sino-Japanese War began – amid demand from military leaders for Prime Minister Fumimaro Konoe's Cabinet to take steps to improve the physique of the Japanese people. In January the following year, the Health and Welfare Ministry was established. These measures were aimed at improving the national physique – by addressing the then serious problem of the spread of tuberculosis among the younger generation – and securing manpower for labor and military forces.⁷⁴ In 1940, the National Physical Fitness Law was introduced and physical fitness tests were given to males in their teens. Serious tuberculosis patients were accommodated in sanitariums, while public health guidance was given to people of weak physique at public training facilities. And public health centers were set up across the country to expedite this policy of promoting public health to secure robust manpower for the military.⁷⁵

Whereas the public health centers in pre-World War II years focused on personal health for the purpose of building up the national physique, their roles were expanded after the war to include environmental health, and the centers were reborn as administrative organs for general public health.⁷⁶ As part of the efforts under the command of the Public Health and Welfare Section of the General Headquarters, the Supreme Commander for the Allied Powers that occupied Japan to reform policy on the nation's public health – which was in a critical condition – the public health regime was changed from the prewar policing (or security) administration led by clerical officials (which carried over the tradition of epidemic prevention duties of the Home Ministry's police-related departments that predated the creation of public health centers) into a science and technology-based administration led by technical officials.⁷⁷

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Changes in the number of public health centers
(Data from the health ministry's Health Service Bureau, as of April 1, 2020)



In the early postwar years, the main challenge of the public health centers continued to be the fight against the spread of acute infectious diseases, in particular serious infections of tuberculosis⁷⁸ – whose threat to public health in those days

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

corresponded to the threat of cancer today.⁷⁹ After the postwar Constitution took effect in 1947, a new Health Center Law was enacted the same year, in line with Article 25, Clause 2 of the Constitution that obliged the state to endeavor to improve public health. As a result of these changes, public health centers were converted into general public health institutions responsible for a wide range of tasks from health consultation to public health guidance, medical and pharmaceutical affairs, food sanitation and environmental health – and as the frontline bodies to carry out such measures. The public health centers were now to be headed by medical doctors, and their manpower was significantly increased in this “golden age.”⁸⁰ However, with the implementation of the Dodge Line measures to tighten Japan’s fiscal and monetary policies – aimed at enhancing the independence and stability of its economy and reinforcing its capitalist foundations, so that Japan could serve as a bulwark against the expansion of Communism in the Cold War – funding for public health centers also began to face the axe.⁸¹

From the latter half of the 1950s, many doctors started to choose a career in clinical medicine, instead of public health, as the medical service system led mainly by private-sector medical institutions sharply expanded. As public health centers struggled with budget and manpower shortages, it was suggested that the nation’s public health policy was “in its twilight.”⁸² A series of attempts were made at rebuilding the operation of public health centers, but none of these efforts resulted in fundamentally resolving their problems.⁸³

Meanwhile, with the aging of Japan’s population and improvement in public health conditions with the rapid development of its economy, the bulk of health problems in Japan shifted from acute illnesses such as infectious diseases to chronic illnesses, and the Health and Welfare Ministry also indicated that the public health centers needed to alter their focus on social defense perspectives and pay more attention to comprehensive public health building through people’s life cycles.⁸⁴

In response to these societal demands, the Health Center Law was revised into the Community Health Act in 1994. The prefecture-level public health centers were no longer the frontline organs of public health, but instead supported the operations of health centers set up in cities, towns and villages, which took over that role, from “broader regional, expert and technical” perspectives.⁸⁵ Public health centers at prefectural levels were streamlined as the area of their jurisdiction was adjusted to match those of a secondary medical area as well as an elderly health and welfare area.⁸⁶ The wave of administrative reforms, decentralization of administrative powers, fiscal rehabilitation and mergers of municipalities that were promoted in those days also accelerated the reduction in their numbers. The number of public health centers across the country was nearly halved from 847 in 1994 to 469 in 2020.⁸⁷ The number of medical doctors stationed at public health centers also declined to 728 in 2018, or roughly 60 percent of the 1,265 in 1996.

3.5.3. Surge capacity and collaboration between medical services and public health organs

Public health centers – whose primary task used to be combating tuberculosis – were reorganized and reduced with the decline of tuberculosis infections.⁸⁹ That resulted in a loss of operational capacity at such centers on the frontlines of the battle against an infectious disease crisis.

A party familiar with the operation of such facilities says that public health centers are far behind in the digitalization of their operations – as illustrated by their exchanges with medical institutions via fax messages and the manual input of data into the NESID system. Public health organs such as public health centers and public health institutes and medical institutions, including those designated for dealing with infectious diseases, lack a system that mutually connects their information systems (like NESID and electronic medical records). For example, public health centers, after being informed of new infection cases from medical institutions, have no means to know whether the infected patients were later discharged or how their conditions changed. The lack of access to such information is feared to hamper an effective response to an infectious disease crisis.

Keizo Takemi, an Upper House member of the Liberal Democratic Party, pointed to the necessity of surge capacity at public health centers to prepare for an emergency. “They require massive funding and manpower in an emergency. But they don’t need that much in normal times. We need to build a scheme in which [the public health centers] are run on the minimum necessary personnel in normal times but can mobilize retired staff and researchers from local universities and research institutes to engage in epidemiological investigation and other tasks in case of a crisis,” Takemi said. In addition to securing extra manpower to deal with a crisis, operation of the parties involved should be thoroughly digitalized so as to build a database enabling the national and local governments, public health centers, public health institutes and medical institutions on the frontlines of combating infections to share relevant information on a real-time basis.

3.6. Public health institutes

Public health institutes are the “core scientific and technical bodies” in public health administration in prefectures and major cities.⁹⁰ A total of 83 such institutes are set up in prefectures, designated major cities and other core cities across the country.⁹¹ They engage in the task of identifying pathogens for infectious diseases and make up a part of the surveillance system as local centers for collecting information on infectious diseases. The institutes contribute to protecting the lives of local residents by providing the scientific grounds for the infectious disease measures taken by the national as well as local governments to which they belong. Aside from research activities, they spend most of their time on administrative testing based on the Infectious Diseases Control Law and

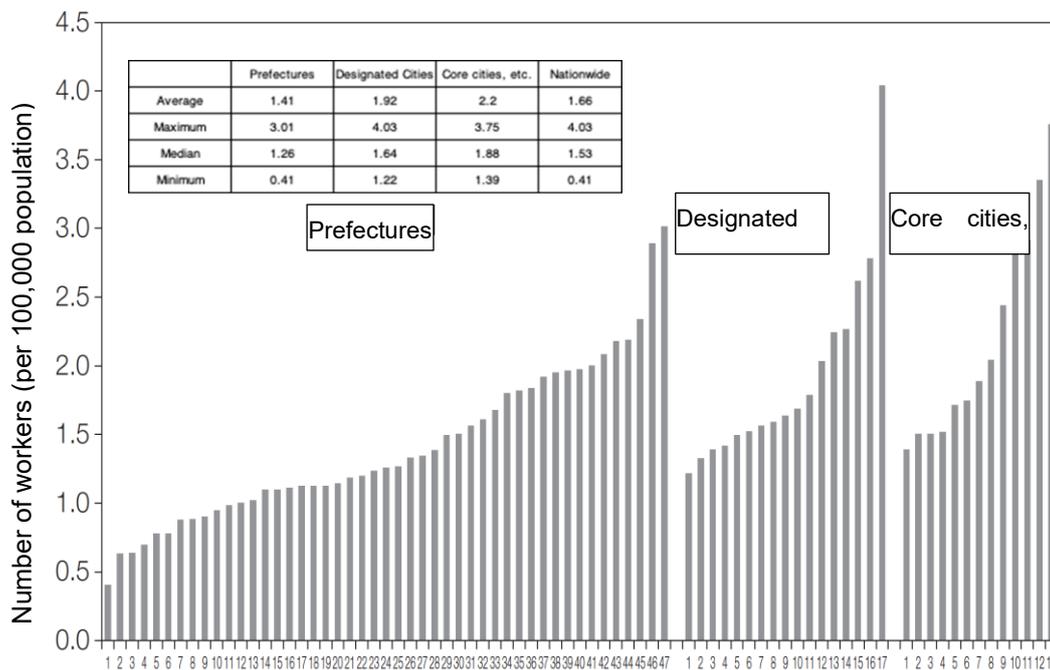
The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

the Food Sanitation Act, and the results of these tests serve as the grounds for hospitalization of patients under the Infectious Diseases Control Law.⁹²

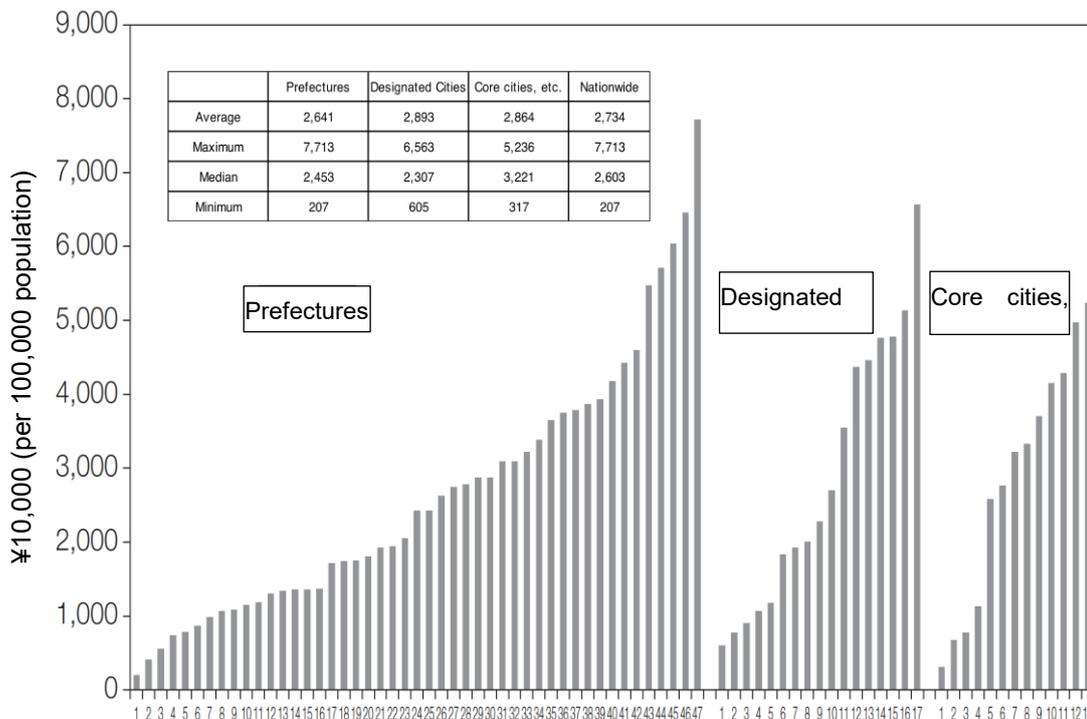
Creation of the public health institutes was founded on a 1948 notification by the administrative vice minister of the Health and Welfare Ministry for setting up such regional institutions, which was later updated in 1997. In other words, establishment of the public health institutes is not based on any law. However, it is clear that government policy planning assumes the functions served by the public health institutes, as illustrated by official government documents, such as the plan of action to deal with pandemic influenza and new infectious diseases, that highlight the roles of these institutes.

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Distribution of workers/budget among public health institutes⁹⁶



Number of full-time public health workers at each public health institute (per 100,000 population) in 2008



2008 budget at each public health institute (per 100,000 population)

Source: Japan Association of Prefectural and Municipal Public Health Institutes

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Currently, public health institutes are established on the basis of an ordinance by each local government. This lack of legal guarantee for their standard functions has created the problem of disparity in the functions of public health institutes between the local governments that set them up, due to a gap in budgetary and manpower allocations. A survey taken in the past also indicated that the testing functions at public health institutes have noticeably declined from more than a decade ago. The average number of staff, budget and research funding was reduced by 13 percent, 30 percent and 47 percent respectively over the five years from 2003 and 2008, according to the survey.⁹³ A party familiar with the situation at public health institutes said that, due to the nature of their tasks that do not involve direct service to local residents, those institutes do not have interested parties or active supporters for their operations, and therefore lack the means to resist pressure from fiscal and personnel authorities for budget and manpower cuts.⁹⁴

However, since the threat of an infectious disease crisis extends nationwide, minimum required levels of testing standards must be maintained at public health institutes across the country. In this light, the government report wrapping up the experience of the 2009 novel influenza pandemic highlighted the need to provide clear legal authority for the operation of public health institutes, but that recommendation has since not been carried out. It is said that, amid the calls for decentralization of administrative powers in recent years, it was difficult to enact a legislation that requires local governments across the country to set up local bodies with standardized functions.⁹⁵

Average number of workers, budget and research funding at public health institute⁹⁷

Average number of workers at public health institute
(Japan Association of Prefectural and Municipal Public Health institutes survey)

By parties setting up the institutes	Prefectures		Ordinance-designated cities		All public health institutes		
	2004	2008	2004	2008	2004	2008	Margin of decline (%)
	N=47	N=47	N=12	N=17	N=75	N=77	
Full-time	56.9	49.0	54.2	42.3	48.3	41.7 人	△13.7
Part-time	4.6	4.0	3.4	2.9	3.8	3.4	△10.5
Full-time and part-time	61.5	53.0	57.6	45.2	42.1	45.1	△13.4
All public health	32.9	29.8	34.8	27.2	28.8	26.1	△9.3

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

workers							
---------	--	--	--	--	--	--	--

Average budget and research funding at public health institute (unit: ¥1,000)
(Japan Association of Prefectural and Municipal Public Health Institutes survey)

By parties setting up the institutes	Prefectures		Ordinance-designated cities		All public health institutes		
	2004	2008	2004	2008	2004	2008	Margin of decline (%)
	N=47	N=47	N=12	N=17	N=75	N=77	
Average total budget	683,476	478,943	677,264	402,468	580,825	405,234	△31.2
Average competitive research funding	22,860	12,397	9,702	3,395	15,813	8,472	△48.5

It is against such a background that local public health institutes lacked enough manpower and equipment capacity to respond to the steep increase in testing demands during the COVID-19 crisis, which resulted in test specimens piling up at such institutes and delayed test results for days, said a party familiar with the operation of public health centers.

3.7. Medical institutions

3.7.1. Designated medical institutions for specified infectious diseases

Medical institutions designated for treating patients of infectious diseases are the final line of defense against an infectious disease crisis. What is crucial in the response to such an emergency is securing an adequate number of beds at these hospitals, said economy revitalization minister Yasutoshi Nishimura, who was in charge of the government's response to the COVID-19 crisis. Under the Infectious Diseases Control Law, those hospitals, set up across the country, are classified into institutions designated for specified infectious diseases, Category-I infectious diseases and Category-II infectious diseases according to the standard of their facilities.⁹⁸

According to a member of the government's COVID-19 expert panel, the National Center for Global Health and Medicine (NCGM),⁹⁹ which is designated for dealing with specified infectious diseases, effectively serves as the core of those

institutions. During the 2014 outbreak of the Ebola virus disease, some of the Category-I hospitals lacked adequate capacity for seeing Ebola patients, so the NCGM formed a special team that could be dispatched to assist other institutions as needed.¹⁰⁰ With the cooperation of the NCGM, the health ministry also held training sessions nationwide on the appropriate use of personal protective equipment and other steps needed in examining patients of such infectious diseases. The NCGM has thus played key roles in the efforts to improve the preparedness of medical institutions to deal with an infectious disease crisis.

3.7.2. Training and financial footing

Takao Omagari, head of NCGM's Disease Control and Prevention Center, said he was reminded of the importance of national-level efforts against infectious disease crises when he was confronted with the real threat of an outbreak of highly fatal virus infection spreading to Japan at any time – in dealing with a suspected case of Ebola virus infection at the time of the 2014 outbreak. The response to the Ebola outbreak was indeed a key turning point in the efforts of medical institutions designated for infectious diseases to reinforce their preparedness. At the NCGM, the skill levels of its staff are said to have significantly improved as they handled large numbers of cases of suspected infection with the MERS epidemic that broke out in South Korea. Half of the beds for patients of specified infectious diseases were upgraded to enable intensive care so that the institution could save patients of highly virulent infectious diseases such as the Ebola virus disease. That measure contributed to saving the lives of COVID-19 patients during the latest pandemic.

The NCGM holds drills for dealing with an infectious disease crisis – focusing on intensive care operation to save the lives of infected patients – twice each year. “In a real situation, you can't do more than what you did at the drills. We reenact real medical and administrative acts,” Omagari said as he emphasized the need to hold drills under real settings. He also stressed the importance of anticipating “all possible crises including the worst-case scenario of a pandemic of a virus with the virulence of Ebola and the infectivity of influenza,” and said the problem with Japan's preparedness against infectious disease crises prior to COVID-19 was that it erroneously assumed a pandemic of a moderate spread of infection causing moderate number of casualties – as was observed in the MERS case in South Korea in 2015. Efforts to improve the level of drills held at hospitals designated for treating infectious disease patients across the country and share up-to-date knowledge in clinical medicine are also being led by the health ministry's research team on Category-I infectious diseases, headed by Dr. Yasuyuki Kato.¹⁰¹

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Medical care for patients of infectious diseases		
Category	Medical care system	Publicly funded medical care
New infectious disease	Institution designated for specified infectious diseases (Several institutions designated by the national government across Japan)	All expenses publicly covered* ² (No application of health insurance). Government pays for 75% and prefecture 25%.
Category-I infectious disease	Type-1 institution designated for infectious diseases (One designated by the governor at each prefecture)	Health Insurance is applied. Patient's burden is covered by public funding. * ² Government pays for 75 percent and prefecture 25%.
Category-II infectious disease* ¹	Type-2 institutions designated for infectious diseases (One in each secondary medical area)	
Category-III infectious disease	General medical institutions	No public funding (Health insurance applied)
Category-IV infectious disease		
Category-V infectious disease		
Pandemic influenza (novel influenza and re-emerging influenza)	Specified, type-1 and type-2 institutions for infectious diseases	Health insurance applied. Patient's burden is covered by public funding. * ² Government pays for 75% and prefecture 25%.

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

Designated infectious disease	Measures equivalent to those for Category I to III diseases	Same as above
-------------------------------	---	---------------

*1 Tuberculosis patients are in principle accommodated at tuberculosis beds under the Medical Care Act.

*2 Patient who can afford to will pay for the expense within the limit.

Source: Tuberculosis and Infectious Diseases Control Division, the Health Service Bureau, MHLW

The efforts to upgrade the preparedness of medical institutions against infectious disease crises appear to be making solid progress. However, the financial footing that supports those efforts is unstable. Enormous medical resources are required to accept patients in times of an infectious disease crisis, and that imposes a heavy financial burden on the management of hospitals. The COVID-19 crisis exposed the distorted structure in which the medical institutions, the final line of defense in the nation's infectious disease crisis management, incurred deeper losses the more actively they accepted infected patients. About 60 percent of hospitals that accommodated COVID-19 patients during the crisis were in the red in 2019, but that ratio surged to 90 percent in 2020.¹⁰²

4. Summary: Best practices and challenges

4.1. Best practices

Of particular importance among the best practices to improve Japan's preparedness against an infectious disease crisis was the enactment of the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, following the nation's experience of the 2009 novel influenza pandemic. Without the special measures act, the government would have had to spend extra time enacting new legislation to deal with the novel coronavirus, further delaying its response to the COVID-19 crisis.

Creation of the new position of chief medical and global health officer was another major achievement that secured a commander to lead a flexible response to an infectious disease emergency. Under the command of the chief medical and global health officer, technical officials of the health ministry with the medical expertise took part in the frontline efforts to contain novel coronavirus infections. The health ministry and the National Institute of Infectious Diseases should also be applauded for working on a system for surveillance for suspected cases last year, which resulted in detecting the first case of domestic infection with the novel coronavirus in the early stage.

4.2. Challenges

First of all, it was regrettable that the nation failed to learn from South Korea's experience in the 2015 MERS outbreak. Japan needs to start learning from other countries' experience with the COVID-19 pandemic, in particular many Asia-Pacific countries that succeeded in minimizing the damage from the novel coronavirus.

The national government's weak power of command over local governments under the Infectious Diseases Control Law and the special measures act, as well as the fact that the special measures act only provides for a government "request" for public health measures responding to a pandemic, are problems in the nation's preparedness that need to be resolved. We must consider effective solutions before the nation is hit by a more virulent infectious disease crisis.

Unlike the drills held at medical institutions designated for dealing with infectious diseases, the government's drills to cope with pandemic influenza and new infectious diseases are not based on practical scenarios and are removed from the reality of the threat of such a crisis. These drills must anticipate a worst possible scenario and have as many government officials as possible regularly take part.

Cuts to the budget and manpower at the National Institute of Infectious Diseases, public health centers and public health institutes over many years have not been reversed, even though the problem has repeatedly been pointed out since 2009. This problem, along with the lack of legal authority for the public health institutes, must be promptly resolved. The fragile financial footing of medical institutions, the last line of defense in the efforts to control infectious disease crises, should also be quickly addressed. Policy approaches and budgetary measures for the institutions on the frontline of the fight against infectious disease emergencies must be overhauled.

Finally, the need to secure surge capacity in a crisis in frontline organs such as quarantine stations, public health centers, public health institutes and medical institutions is seen as a crucial issue among people involved in the efforts to combat infectious disease emergencies. Legal steps need be taken to build a system for mobilizing extra emergency manpower at such bodies, including retired staff and researchers in private-sector institutions.

Notes

1. There is no legally-standardized definition of the term "pandemic" either in Japan or internationally. Technically, the term is deemed to refer to a state in which an infectious disease has spread on a global scale geographically and an extremely large number of people are infected. Other terms that refer to the geographical scope of the spread of an infectious disease include "epidemic" and "endemic."
2. Research group on countermeasures against pandemic influenza and new infectious diseases, "Article-by-article explanation: the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response" (Chuohoki, 2013)

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

3. Ibid.
4. “Our country’s response to new-type influenza (A/H1N1) and future challenges” (compiled by Koji Wada and supervised by Tatsuo Miyamura, 2011)
5. Ibid.
6. Research group on countermeasures against pandemic influenza and new infectious diseases, “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
7. Report by the government conference wrapping up its response to the novel influenza (A/H1N1) pandemic (July 10, 2010)
<https://www.mhlw.go.jp/bunya/kenkou/kekkaku-kansenshou04/dl/infu100610-00.pdf>
8. Points of discussion for legal system needed to take measures against pandemic influenza and new infectious diseases (November 10, 2011)
<https://www.cas.go.jp/jp/seisaku/ful/housei/ronten.pdf>
9. The Cabinet Secretariat Office for Pandemic Influenza and New Infectious Diseases Preparedness and Response, “Draft for legislation for countermeasures on novel influenza (January 17, 2012)
<https://www.cas.go.jp/jp/seisaku/ful/housei/tatakidai.pdf>
10. Outbreak: An outbreak of an infectious disease refers to a state in which the infectious disease in question is emerging more widely than in normal conditions.
11. Tomoya Saito, Kazuko Fukushima, Keishi Abe, “The Health, Labor and Welfare Ministry’s response to the Ebola virus disease” (Virus, Volume 65, 1st issue, 2015)
12. BSL-4 facility has the capacity to handle the virus of a Category-I infectious disease, which is the most dangerous category under the Infectious Diseases Control Law and whose possession and import are prohibited.
13. Sankei News, “BSL-4 facility of the National Institute of Infectious Diseases to be put in operation for the first time in Japan, Masashimurayama mayor agrees” (August 3, 2015)
<https://www.sankei.com/life/news/150803/lif1508030016-n1.html>
14. Jiji.com News, “First import of Ebola and other viruses for full-scale operation of the BSL-4 facility in Musashimurayama, Tokyo (September 27, 2019)
15. The mission was comprised of officials from the Cabinet Secretariat, the health ministry, the Foreign Ministry, the Defense Ministry, the Self-Defense Forces and JICA.
16. Infectious Disease Emergency Specialist Training Program (IDES) is a human resources training program whose creation in 2015 was led mainly by the Tuberculosis and Infectious Diseases Control Division of the health ministry’s Health Service Bureau. About five trainees are accepted each year to the program, and participants experience administrative service (at the ministry’s Tuberculosis and Infectious Diseases Control Division), quarantine (at quarantine stations), field epidemiology (at the National Institute of Infectious Diseases) and clinical training in infectious diseases (at the Disease Control and Prevention Center of the National Center for Global Health and Medicine) in the first year, and go through training at the World Health Organization and other overseas institutions in the second year, so as to obtain an international level of administrative management capability.
17. The health ministry, “Photo report: Health minister Shiozaki announces the creation of Infectious Disease Emergency Specialist Training Program during a meeting of experts who took part in the mission to western Africa” (April 20, 2015)
<https://www.mhlw.go.jp/photo/2015/04/ph0420-01.html>
18. Japan International Cooperation Agency, “About the Japan Disaster Relief Team (JDR)”
<https://www.jica.go.jp/jdr/about/jdr.html>
19. The Infectious Diseases Control Law provides for technical guidance and advice by the health minister (under its Article 51) and instructions by the health minister (Article 51-2) over a new infectious disease in light of its unknown danger. As for other infectious diseases, the law provides for instructions by the health minister under its Article 63-2. Given the nature of a new infectious disease, which is unlike other infectious diseases, the law (Article 51-2, Clause 2) makes it mandatory to seek the opinions of the Health Science Council in order to give appropriate instructions based on expertise.
20. Tuberculosis and Infectious Diseases Control Division, the Health Service Bureau, the health ministry, “Detailed explanation: Act on Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases (Infectious Diseases Control Law, 4th edition” (Chuohoki, 2016)

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

21. Nikkei, “The law on special measures for pandemic influenza to take effect on April 13, restricting the use of wide range of facilities” (April 12, 2013)
https://www.nikkei.com/article/DGXNASDG11051_S3A410C1CC0000/
22. In a law-governed nation, the foundation of governance in any field is the law, and the law is implemented by organizations. Therefore, this report examines the legal system and organizations as the infrastructure that supports the governance of infectious disease crisis management. We will also evaluate, both in qualitative and quantitative terms, the money needed to run organizations, the individual people who actually run the organizations, the goods such as supplies and materials that they use, and information as a lubricant smoothing the operation of governance.
23. Reasons for omitting detailed explanations about the Quarantine Act, the Immunization Act and the IHR:

The Quarantine Act: In January 2020, the novel coronavirus disease was designated both as a designated infectious disease under the Infectious Diseases Control Law and as a quarantinable infectious disease under the Quarantine Act. However, under the provisions at the time, it was still not possible to isolate patients of the disease or restrict their activities. When the COVID-19 infection broke out aboard the Diamond Princess in February and authorities needed to keep its passengers and crew inside the cruise ship, officials removed the novel coronavirus disease from the list of quarantinable infectious diseases and newly designated COVID-19 as an “infectious disease based on Article 34 of the Quarantine Act, thus enabling them to isolate the passengers and crew and restrict their activities. Operations aboard the Diamond Princess was made possible by the provisions of the Quarantine Act, the Quarantine Act effectively functioning as a tool at the nation’s disposal. However, this section will focus on the Infectious Diseases Control Law and the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response – which were the key subjects of legal discussion concerning the government’s COVID-19 response – and omit detailed explanation of the Quarantine Act.

The Immunization Act: When this report was being compiled, development of vaccines for the novel coronavirus was still in progress, and immunization of people after the development of the vaccines was under discussion by the government. Since the process cannot be examined, we will omit reference to the Immunization Act.

International Health Regulations: Managing an infectious disease crisis requires not only domestic response but cooperation with the international community. Measures to control an international infectious disease crisis are carried out according to the rules set out in the IHR, for which the World Health Organization serves as the secretariat. The WHO director-general declares a “Public health emergency of international concern (PHEIC)” based on the IHR. Therefore, the IHR is a key international law with a major influence on Japan’s infectious disease crisis management, and the health ministry is responsible for domestic implementation of the IHR. However, this chapter focuses on the domestic legal system concerning the response to infectious disease crises, and will therefore omit a detailed reference to the IHR.
24. Pandemic influenza (Article 6, Clause 7, Infectious Diseases Control Law) refers to novel influenza and re-emerging influenza that spread through human-to-human infection.
25. Designated infectious disease (Article 6, Clause 8, Infectious Diseases Control Law) is a disease caused by a known pathogen designated by an ordinance as a potential threat, although at that point the pathogen had not been defined under the law. Measures under the Infectious Diseases Control Law can be taken against a disease basically for one year (extendable for another year).
26. New infectious disease (Article 6, Clause 9, Infectious Diseases Control Law) is a disease unknown to humankind that is found to spread through human-to-human infection.
27. Tuberculosis and Infectious Diseases Control Division, the Health Service Bureau, the health ministry, “Detailed explanation: Act on Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases (Infectious Diseases Control Law), 4th edition” (Chuohoki, 2016)
28. Preface to the Infectious Diseases Control Law
29. The Infectious Diseases Control Law provides for technical guidance and advice by the health minister (under its Article 51) and instructions by the health minister (Article 51-2) over a new infectious disease in light of its unknown danger. As for other infectious diseases, the law provides for instructions by the health minister under its Article 63-2. Given the nature of a new infectious disease,

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

- which is unlike other infectious diseases, the law (Article 51-2, Clause 2) makes it mandatory to seek the opinions of the Health Science Council in order to give appropriate instructions based on expertise.
30. Research group on countermeasures against pandemic influenza and new infectious diseases, “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
 31. Article 45 of the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response
 32. Tomoya Saito, “Japan’s pandemic response and the novel coronavirus disease” (Special web symposium co-organized by the Japan Association of Medical Law and the science research funding subsidy program of the University of Tokyo: Law and medicine in the response to infectious diseases – Background to the novel coronavirus disease issue, August 30, 2020
<https://www.youtube.com/channel/UCL0S7w0nHsaLK9Ok9517Wjw/about>)
 33. Ibid.
 34. Research group on countermeasures against pandemic influenza and new infectious diseases, “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
 35. Three conditions that necessitate a state of emergency due to pandemic influenza and new infectious diseases (Article 6, ordinance for implementing the special measures act): 1) Domestic outbreak; 2) High pathogenicity (which causes symptoms such as pneumonia, multiple organ dysfunction, encephalopathy or other conditions determined to be grave by the health minister at an incidence rate deemed to be significantly higher compared to influenza as described in Article 6, Clause 6-1 of the Infectious Diseases Control Law; and 3) Infections that have expanded to a degree that makes it impossible to trace infection routes
 36. Article 32 of the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response
 37. Measures to be taken under a state of emergency over pandemic influenza and new infectious diseases
 38. Research group on countermeasures against pandemic influenza and new infectious diseases, “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
 39. Ibid.
 40. The 180th session of the Diet, Lower House Cabinet Committee, issue No.5 (March 23, 2020)
 41. The 180th session of the Diet, Upper House Cabinet Committee, issue No.7 (April 17, 2012)
 42. Research group on countermeasures against pandemic influenza and new infectious diseases, “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
 43. The 180th session of the Diet, Lower House Cabinet Committee, issue No.5, Kentaro Motomura (March 23, 2012)
 44. Article 20 of the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response: The chief of the national government’s response headquarters, based on its basic policy of response, can make an overall adjustment of the measures taken by prefectural governors and designated administrative/public bodies against pandemic influenza and new infectious diseases if such a step is deemed necessary to implement the measures appropriately and expeditiously.
 45. Research group on countermeasures against pandemic influenza and new infectious diseases “Article-by-article explanation: The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response” (Chuohoki, 2013)
 46. Article 33, Clause 1 of the special measures act
 47. Article 33, Clause 2 of the special measures act
 48. The 180th session of the Diet, Lower House Cabinet Committee, issue No.5 (March 23, 2012)
 49. The 180th session of the Diet, Lower House Cabinet Committee, issue No.6 (March 28, 2012)
 50. Article 12 of the special measures act
 51. Health Care 2035 advisory panel “Health Care 2035” (June 9, 2015)
https://www.mhlw.go.jp/file/04-Houdouhappyou-12601000-Seisakutoukatsukan-Sanjikanshitu_Shakaihoshoutantou/0000088647.pdf
 52. Article 5, Clause 3 of the Act for Establishment of the Health, Labor and Welfare Ministry: The chief

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

- medical and global health officer is in control of skills concerning tasks under the jurisdiction of the Health, Labor and Welfare Ministry (limited to matters that require the use of medical knowledge and expertise).
53. The quarantine stations include 13 main stations, 14 branch stations and 83 local offices (Health ministry pamphlet on quarantine stations)
<https://www.mhlw.go.jp/general/saiyo/kenetsu/dl/kenetsu-01.pdf>
 54. Health, Labor and Welfare Ministry organizational regulation, Article 27
 55. NHK Politics Magazine, “Extraordinary situation at Narita airport as quarantine cases top 1,000 a day” (June 29, 2020) <https://www.nhk.or.jp/politics/articles/lastweek/40631.html>
 56. Revision to the National Epidemiologic Surveillance of Infectious Disease Program (Kenkanhatsu0529, 2nd issue, May 29, 2020)
<https://www.mhlw.go.jp/content/000635997.pdf>
 57. Disease requiring notifiable disease surveillance (Article 12 of the Infectious Diseases Control Law), Disease requiring sentinel surveillance (Article 14 of the Infectious Diseases Control Law)
 58. Infectious Disease Weekly Report (IDWR)
 59. Article 16 of the Infectious Diseases Control Law (disclosure of information)
 60. Infectious Agents Surveillance Report (IASR)
 61. Article 16 of the Infectious Diseases Control Law (disclosure of information)
 62. Article 14, Clause 1 of the Infectious Diseases Control Law
 63. Notice by the chief of the Tuberculosis and Infectious Diseases Control Division, the Health Service Bureau, the health ministry (Kenkanhatsu0221, 1st issue, February 21, 2019)
<https://www.mhlw.go.jp/content/10906000/000527502.pdf>
 64. The broad criteria for reporting suspected cases (fever and respiratory symptoms or fever and rash) was changed to focus on cases of serious symptoms that have a strong public health impact (symptoms linked to an infectious disease, conditions grave enough to require intensive care, but still difficult to immediately diagnose the case as a specific infectious disease).
 65. The evaluation is held for the purpose of promoting the autonomous operation of the National Institute of Infectious Diseases and health science research. The framework of the research evaluation is set on the basis of an outline of the method for evaluation of health science research. Evaluation is made by outside parties of the research institution (regular evaluation) and large-scale research projects. It is intended for the more efficient implementation of research projects by reflecting the outcome for a more appropriate distribution of research and development resources such as science research funding.
 66. Report on the research and development institution evaluation of the National Institute of Infectious Diseases (2010)
<https://www.niid.go.jp/niid/images/plan/evaluationh22.pdf>
 67. Report on the research and development institution evaluation of the National Institute of Infectious Diseases (2013)
<https://www.niid.go.jp/niid/images/plan/procure/kouhyou/25kikanhoukoku.pdf>
 68. Report on the research and development institution evaluation of the National Institute of Infectious Diseases (2016)
<https://www.niid.go.jp/niid/images/plan/procure/kouhyou/28kikanhyoka.pdf>
 69. Basic guideline for promoting community health measures based on Article 4, Clause 1 of the Community Health Act (December 1, 1994, Health and Welfare Ministry notice No. 374)
<https://www.mhlw.go.jp/file/06-Seisakujouhou/10900000Kenkoukyoku/0000079549.pdf>
 70. Article 15 of the Infectious Diseases Control Law (active epidemiological investigation)
 71. Infectious Diseases Control Law, Article 12 (disease requiring notifiable disease surveillance), Article 14 (disease requiring sentinel surveillance), Article 16 (disclosure of information)
 72. Conference of ministries involved in measures for pandemic influenza, new infectious diseases and avian influenza, “Guideline on measures against pandemic influenza and new infectious diseases” (June 26, 2013)
https://www.cas.go.jp/jp/seisaku/ful/keikaku/pdf/h300621gl_guideline.pdf
 73. Taku Nomura, “Note on Wartime Medical Policy” (Iryo Tosho Shuppansha, 1978)
 74. 47 News, “Behind Japan’s strategy for the novel coronavirus is the nation’s fight against tuberculosis: What the history of public health centers shows” (Shigeo Takatorige, Kansai University professor of

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

- public health, May 25, 2020)
<https://www.47news.jp/4844929.html>
75. Journal of Health and Welfare Statistics, “No. 6 Our nation’s medical care system during the wartime and the occupation era Part I” (Volume 63, 15th issue, Page 49, December 2016)
<http://www.hws-kyokai.or.jp/images/book/chiikiiryō-6.pdf>
 76. Masami Nishi “Public health centers up to now: Public health centers from now on” (Bulletin of the Institute of Public Health, Volume 49, 2nd issue, Page 164, 2000)
<https://www.niph.go.jp/journal/data/49-2/200049020009.pdf>
 77. Journal of Health and Welfare Statistics, “No. 6 Our nation’s medical care system during the wartime and the occupation era Part I” (Volume 63, 15th issue, Page 51, December 2016)
<http://www.hws-kyokai.or.jp/images/book/chiikiiryō-6.pdf>
 78. The mortality rate of tuberculosis at the time was around 300 per 100,000 population.
 79. The mortality rate of malignant neoplasms (cancer) today is 300.7 per 100,000 population (Health ministry, report on vital statistics, 2018)
<https://www.mhlw.go.jp/toukei/saikin/hw/jinkou/geppo/nengai18/dl/gaikyou30.pdf>
 80. Journal of Health and Welfare Statistics, “No. 23 Public health centers and the Community Health Act” (Volume 65, 7th issue, July 2018)
<https://www.hwskyokai.or.jp/images/book/chiikiiryō-23.pdf>
 81. Journal of Health and Welfare Statistics, “No.7 Our nation’s medical care system during the wartime and the occupation era Part II” (Volume 64, 1st issue, January 2017)
<https://www.hws-kyokai.or.jp/images/book/chiikiiryō-7.pdf>
 82. Journal of Health and Welfare Statistics, “No. 23 Public health centers and the Community Health Act (Volume 65, 7th issue, July 2018)
<https://www.hwskyokai.or.jp/images/book/chiikiiryō-23.pdf>
 83. Journal of Health and Welfare Statistics, “No. 23 Public health centers and the Community Health Act (Volume 65, 7th issue, Page 46-47, July 2018)
 84. The Health and Welfare Ministry “Health and Welfare White Paper, 1993 edition”
https://www.mhlw.go.jp/toukei_hakusho/hakusho/kousei/1993/dl/04.pdf
 85. Basic guideline for promoting community health measures based on Article 4, Clause 1 of the Community Health Act (December 1, 1994, Health and Welfare Ministry notice No. 374)
<https://www.mhlw.go.jp/file/06-Seisakujouhou-10900000-Kenkoukyoku/0000079549.pdf>
 86. Article 5, Clause 2 of the Community Health Act
 87. Japanese Association of Public Health Center Directors, “Transition in the number of public health centers (from 1989 to 2020)” (April 2020)
http://www.phcd.jp/03/HCSuii/pdf/suii_temp02.pdf
 88. Kunio Otsuki, “Report on the operation of public health centers: the number of public health centers and their activities as seen in reports on community health and geriatric health programs” (Bulletin of the Institute of Public Health, Volume 57, 7th issue, 2010)
https://www.jstage.jst.go.jp/article/jph/57/7/57_561/pdf/-char/ja
 89. Osaka Prefecture Medical Practitioners’ Association, “Japan’s public health system created by tuberculosis: Dissolution of public health centers proceeded based on insufficient discussions” (Shigeo Takatorige, Kansai University professor of public health, July 5, 2020)
<https://osaka-hk.org/posts/%E7%B5%90%E6%A0>
 90. About reinforcing the functions of public health institutes (Health and Welfare Ministry notice No. 26, March 14, 1997)
 91. National Institute of Infectious Diseases, “List of public health institutes” (updated April 20, 2020)
<https://www.niid.go.jp/niid/ja/from-idsc/2152-phi/2343-chieiken.html>
 92. Komei Shirabe, “Current state of public health institutes under the Community Health Act, challenges and future shape” (Bulletin of the Institute of Public Health, Volume 80, 1st issue, January 2016)
 93. The 3rd session of the Infectious Diseases Division of the Health Science Council, reference material 1, “The current state and challenges of public health institutes in response to infectious diseases” (Kunihisa Ozawa, March 14, 2014)
<http://www.mhlw.go.jp/stf/shingi/0000040512.html>
 94. Kunihisa Ozawa, “The future of public health institutes” (Bulletin of the Institute of Public Health,

The Independent Investigation Commission on the Japanese Government's Response to COVID-19: Report on Best Practices and Lessons Learned

- Volume 77, 1st issue, Page 48-53, January 2013)
95. Komei Shirabe, “Current state of public health institutes under the Community Health Act, challenges and future shape” (Bulletin of the Institute of Public Health, Volume 80, 1st issue, January 2016)
 96. Kuniyoshi Ozawa, “The future of public health institutes” (Bulletin of the Institute of Public Health, Volume 77, 1st issue, January 2013)
 97. Ibid.
 98. After the novel coronavirus disease was classified as a designated infectious disease on January 28, 2020, patients of the disease could be hospitalized at any of the medical institutions designated for specified, Category-I or Category-II infectious diseases. Later, the health ministry, following the reports of large numbers of cases aboard the Diamond Princess, said that COVID-19 patients should basically be moved to medical institutions designated for infectious diseases but that general medical institutions could also handle those patients in urgent cases based on the Infectious Diseases Control Law. (Tuberculosis and Infectious Diseases Control Division, Health Service Bureau, the health ministry “About securing hospital beds for novel coronavirus disease patients (request)” (February 9, 2020)
<https://www.mhlw.go.jp/content/10900000/000593853.pdf>
 99. NCGM is one of the six national centers established by the government based on the law on independent administrative bodies that engage in research concerning highly specialized medical services, and is the nation's core body on medical care for infectious diseases.
 100. Tomoya Saito, Kazuko Fukushima, Keishi Abe, “The Health, Labor and Welfare Ministry's response to the Ebola virus disease” (Virus, Volume 65, 1st issue, 2015)
 101. Yasuyuki Kato is professor of infectology at the International University of Health and Welfare and former director of the NCGM's Disease Control and Prevention Center.
 102. Japan Hospital Association, All Japan Hospital Association, Japanese Association of Medical Care Corporations, “Emergency survey on the management conditions of hospitals following the spread of novel coronavirus infections (additional report)” (June 5, 2020)
http://www.hospital.or.jp/pdf/06_20200605_01.pdf