COVID-19 and Japan's Small Death Toll in Long-Term Care Facilities

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Abstract

Japan's initial response to COVID-19 was similar to that of the US. However, the number of deaths in Japan has remained very low. Japan also stands out for the relatively low incidence of viral transmission in Long-Term Care Facilities (LTCFs) compared to both European countries and the United States. We argue that Japan's institutional decision to lockdown Long-Term Care facilities as early as mid-February—weeks earlier than most European countries and the US— contributed to lowering the number of deaths in LTCFs. We highlight a few lessons from the Japanese experience: (i) the presence of hierarchically organized government agencies whose sole missions are elderly care; (ii) the presence of effective communication channels between LTCFs and the regulatory authorities; and (iii) the well-established routine protocols of prevention and control in LTCFs.

Keywords: COVID-19; Japan; nursing homes; long-term care; public health interventions

Key points:

(1) Despite being the most aged society in the world and having a high population density, Japan maintained low rates of deaths from COVID-19.

(2) Japan locked down LTCFs, during the first months of the pandemic, several weeks earlier than in Europe and the United States.

(3) The well-established protocols of prevention and control of communicable diseases such as influenza and tuberculosis proved to be important.

(4) The presence of public authorities exclusively devoted to the oversight of LTCFs contributed to swift institutional responses.

(5) The presence of effective channels of communication between the public authorities and LTCFs contributed to the swift implementation of government guidelines.

Introduction

Experts and journalists have asked why the COVID-19 death tolls in East Asia are so much lower than in Europe and the United States (Sachs, 2020). Japan in particular poses a big puzzle. Japan's initial political reaction to the COVID-19 resembled that of the United States. Unlike other East Asian countries whose governments moved swiftly and decisively to contain the spread of the new virus. Japan was a global laggard in testing and in its lack of national political leadership. Even after the United States began scaling up its testing capacity, Japan still did very little testing. Japan has conducted by far the smallest number of tests of all wealthy democracies. Furthermore, Japan never adopted a strict nation-wide lockdown like seen in many Western countries. According to the Japan National Tourism Office, roughly one million Chinese tourists visited Japan in January and February. Travel from Europe remained unrestricted until March 21. Combined with Japan's high population density, the potential for the spread of the new virus was very high. Japan's COVID-19 mortality rate, however, remains closer to the low figures found in countries like South Korea and Taiwan than those found in Europe and the United States.

How could a country that was so hesitant to act nonetheless avert a disaster? Professor Omi, the Vice Chairman of the Expert Panel that advises the Japanese government on COVID-19, attributes Japan's small death toll to the society-wide use of facial masks (Reynolds, 2020). While we do not deny the importance of wearing face masks, we highlight another factor: Japan's early lockdown of Long-Term Care facilities (LTCFs). We claim that an early lockdown of LTCFs in Japan during the initial uncertain months of the pandemic helped protect the most vulnerable. In Japan, this early intervention had little to do with political leadership and top down crisis management. Instead, as this paper demonstrates, it was part of a well-established routine protocol for the prevention and control of communicable diseases in LTCFs. The specific organizational characteristics of the Japanese LTCF sector helped contain viral transmissions into LTCFs during the first months of the pandemic when so little was known. The remarkable success of Japan in limiting fatalities in LTCFs highlights the importance of: (i) the presence of hierarchically organized government agencies whose sole missions are elderly care; (ii) the presence of effective communication channels between LTCFs and the regulatory authorities; and (iii) the wellestablished routine protocols of prevention and control in LTCFs.

Japan's Small Death Toll

Table 1 shows the number of deaths due to COVID-19 as well as the number of polymerase chain reaction (PCR) tests—the type of test that most countries used in the early days of the

pandemic—conducted per one million people in selected East Asian and Western countries. The numbers provide ample evidence both of Japan's small death toll and limited tests.

	COVID-19 deaths	Tests/1 million	
Taiwan	0.3	3,124	
Hong Kong	0.5	36,734	
Singapore	4	83,562	
South Korea	5	21,568	
Japan	7	2,678	
Germany	106	56,034	
USA	356	75,030	
France	451	21,215	
Italy	568	76,419	
Spain	580	103,232	
Britain	614	99,787	
Belgium	834	89,435	

Table 1 Numbers of COVID-19 deaths and polymerase chain reaction testing (PCR)

Data from Worldometer (as of June 16, 2020) https://www.worldometers.info/coronavirus/

It is known that COVID-19 causes more severe symptoms in older people. In Europe, people aged 80 years and older constitute more than 50% of the death toll from this virus (WHO, 2020). As the most aged society in the world, Japan has the largest share of vulnerable adults 80 or older (9.4% of the total population in 2018). In Germany and Italy, which are also among the most aged societies, respectively 6.4% and 7% of their populations are aged 80 or older. The figure for the United States is a mere 3.9% (OECD 2020). Yet the percentage of those aged 80 and older in the total COVID-19 deaths remained lower in Japan (56%) than in Germany (63%) and Italy (59%) (August 5 update Japan from MHLW, 2020a; August 5 and 4 updates respectively for Germany and Italy from INED, 2020). Although the data for the United States use different age breakdowns, the situation is similar. In the United States, those aged 75 years and older and those aged 85 and older constitute, respectively, 59% and 32% of the total COVID-19 deaths (CDC, 2020).

LTCFs, whose residents are elderly, are particularly high-risk facilities in the event of a viral transmission. An international study reports the following figures for the percentage of nursing home residents among those who died of COVID-19 (by the end of May or June depending on the country data): 34% in Austria, 50% in Belgium, 85% in Canada, 49% in France, 39% in Germany and 45% in the United States (Comas-Herrera, Zalakain et al. 2020). In contrast, Japan recorded relatively few deaths in its LTCFs. As of May 8, only 14% of COVID-19-related deaths in Japan had occurred in LTCFs (Kyodo News Service, 2020). Less than 0.01% of LTCF residents died of COVID-19 in Japan compared to 0.4% in

Germany, 5.3%, in Britain and 6.1% in Spain. A more recent update by the Tokyo Medical Association also confirms a very low incidence rate of cluster infection in LTCFs (0.0017%) as of July 5 (the Tokyo Medical Association, 2020).

These comparative statistics provide an initial indication that LTCFs in Japan did not become a major locus of cluster infections, as they did elsewhere. Statistics on deaths from COVID-19, however, face certain problems of comparability because not all countries count deaths with the same accuracy. In the case of Japan, its low death toll might be an artifact of its extremely small number of tests. For this reason, we compare overall excess death rates. Although the currently available statistics on the number of deaths (the Vital Statistics) only cover the period until the end of March nationally and until the end of April in Tokyo, given that the daily number of confirmed cases peaked during the first week of April in Tokyo, we nonetheless think that they provide us with a confirmation of the Japanese success in containing the first wave of deaths from COVID-19. To ensure comparability, we use the same formula to calculate excess mortality as the Financial Times COVID-19 dataset (Financial Times, 2020). Tokyo's excess mortality rates in March and April were 2.2% and 8.4% respectively. The figures for similarly large Western cities where people use public transportation as in Tokyo were much higher: 8.8% and 192% in London, and 49% and 480% in New York City. Tokyo's numbers are very similar to the numbers for Germany (whole country): 2% and 8.8%. Yet while Germany -- a country often upheld as Europe's great COVID-19 success story—controlled the virus by scaling up its COVID-19 testing capacity, Japan never adopted mass testing. Given Tokyo's population density—comparable to London and New York City—and the failure to conduct widespread testing, Japan's low death toll is all the more surprising.

Although Japan's rate of excess mortality has been low, the data also indicate that Japan has experienced an increase in mortality. It is possible that COVID-19 has contributed to this trend. However, Japan's excess deaths are not attributable to clusters of infections in LTCFs as is the case in the United States and many European countries. The Japanese media, which has closely followed the COVID-19 cases in hospitals and LTCFs, reported a small number of clusters of infection. We conducted article searches for the four national newspapers—Asahi, Yomiuri, Mainichi and Nikkei—which cover local news extensively. Our survey of news articles reveals that the majority of cases of infections in Japanese LTCFs tended to be isolated cases of one or two caregivers or residents testing positive. This suggests that most LTCFs successfully contained the spread of the virus, thereby preventing large deadly clusters.

Japan's Swift Decision to Lockdown LTCFs

Japan locked down its LTCFs very early compared to other countries. According to our interviews, some LTCFs were already in full or semi-lockdown modes due to seasonal flu outbreaks in January and February—a routine prevention and control protocol. Early COVID-19 warnings from the Bureau of Health and Welfare for the Elderly within the Ministry of Health, Labour and Welfare (MHLW) effectively shut down the rest of the LTCFs between mid- and late-February. In European countries and the United States, lockdowns of LTCFs came weeks later only after large clusters of infections and deaths had already occurred. Italy, the first European COVID-19 hotspot, waited until early March; the United States until mid-March; and Britain, Germany and many others waited even longer (Comas-Herrera, Ashcroft & Lorenz-Dant 2020).

On January 29, the Bureau of Health and Welfare for the Elderly within the MHLW first contacted the departments of LTCFs in local governments. The Bureau requested that they alert the LTCFs in their jurisdictions about the new corona virus and instruct them to adopt appropriate protocols for prevention and control (MHLW, 2020b). On February 13, MHLW issued another notification to all relevant departments in prefectures and large cities. The Ministry wanted them to ensure that LTC facilities and service providers in their jurisdiction follow the protocols for prevention of communicable diseases (MHLW, 2020c).

On February 24, the MHLW stepped up its warning and issued a notification to all social welfare facilities and LTCFs, which included the following specific guidelines for: (1) how to report COVID-19 incidents to the authorities; (2) cleaning and sterilizing; (3) identification of probable infected residents and staffs; (4) handling of residents and staff suspected of infection; and (5) restrictions of visitors and delivery personnel (MHLW, 2020d). The interviews we conducted with various LTCFs confirmed that the Ministry's notification played an important role in their decision to lock down (see Note 1 for the details of the interviews).

By acting so soon, the MHLW officials in charge of LTCFs got ahead of the virus. At the time, COVID-19 was still thought of by most Japanese people as a distant threat. For most people, the new virus was a problem only for China and a foreign cruise ship—the "Diamond Princess"—quarantined in Yokohama Bay. On February 24, there were still only 141 confirmed cases in Japan. The MHLW's swift actions were the result of a routine institutional response. When the MHLW officials learned that a new virus had entered the country, they automatically raised the alert level as they would with influenza, tuberculosis and other communicable diseases. LTCFs, which were well-practiced in the protocol to isolate their residents, responded immediately. The Prime Minister, his Welfare Minister and even the expert panel advising them on COVID-19 were all largely unaware of the critical steps already taken by mid-level MHLW officials. Ironically, Prime Minister Abe insisted that a new legal framework would be necessary for his government to fight COVID-19. Yet by the time the new legal framework was implemented on March 14, the LTCFs had been under lockdown for three weeks already.

The MHLW's early intervention worked well. In this respect, Japan's response resembled her East Asian neighbors. Hong Kong and South Korea were also very quick to protect the most vulnerable in LTCFs (Lum et al., 2020; the Ministry of Health and Welfare, Government of Korea, 2020). Some scholars have attributed these swift responses to the lessons learned from the failure to handle the Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) (Lum et al., 2020; Cho, 2020). Japan was different. Japan escaped both SARS and MERS, hence there were no bad recent experiences to learn from. The preparedness of Japan's MHLW and LTCFs had to come from elsewhere.

Although Japan had experienced major outbreaks of neither SARS nor MERS, Japan has long suffered from a relatively high incidence of tuberculosis (WHO, 2019). In addition, in the years following its defeat in the Second World War, Japan also suffered from cholera and typhus. Citizens who returned to Japan from the former colonies and battlefields brought back new parasites and diseases. Space limits prevent us from fully discussing the institutional legacies here. For the purpose of this paper, it suffices to point out that Japan developed community-based public health agencies known as *Hokenjo* (MHLW 2014, Chapter 1). These agencies function as local centers of disease control and prevention as well each community's preventive care centers. LTCFs and medical facilities report any outbreaks of communicable diseases such as the seasonal flu and gastroenteritis to *Hokenjo*, which, in turn, keep local and national authorities informed about the scope of transmission within the communities.

When Japan introduced its Long-Term Care Insurance in 2000, it also introduced communicable disease control and prevention guidelines for LTCFs. The Bureau of Health and Welfare for the Elderly in MHLW together with disease prevention and control specialists within the same ministry have frequently upgraded these guidelines so that all care workers were up-to-date on the latest prevention protocols. During the annual influenza season, for instance, LTCFs are accustomed to monitoring updates on influenza outbreaks in order to determine the level of prevention and control measures to adopt. The use of face masks is the norm in any flu season.

In order to fully understand how the Japanese LTCFs effectively responded to the pandemic, it is also important to understand the specific features of the Japanese LTCF sector. Before we discuss specific features, a brief overview of Japan's LTCF sector is in order.

Japan's LTCF System

Most of Japan's LTC services are covered by its public long-term care insurance (LTCI) introduced in 2000 (Campbell and Ikegami 2000). Japan's LTCI—which is administered by municipal governments—is operated independently of the medical insurance system and subsidizes non-medical benefits-in-kind including residential (long-term and short-term) day care services, care services at the users' home as well as home improvements so that elderly citizens can continue to live in their homes safely (MHLW, 2017). When an insured person requires services, the municipal government evaluates and determines the level of care to be covered by LTCI. Insured persons then contract any service provider of choice within the municipality and pay a 10% co-payment. The remaining 90% of the service cost is reimbursed directly to the service providers by the municipal LTCI. The LTCI, however, does not cover room and board. LTCF residents have to pay for the cost out of pocket. The funding for LTCI takes the following form: 50% from mandatory insurance contributions from all residents aged 40 years and older; 25% from the national government; and 12.5% each from the prefectural and municipal governments. Each municipality sets the insurance rates on the basis of the insured residents' income levels.

While the municipal governments are the administrators of the system, LTCI is a nationally regulated system. The menu of services and pricing is set by the Ministry of Health, Labour and Welfare (MHLW) and hence is standardized across the country. Furthermore, the MHLW sets the rules over who can operate as service providers and imposes specific requirements on the provision of services such as minimum levels of accommodation, care worker/resident ratio, the number of medical and trained care staff, nutritionists and physical therapists. The MHLW also requires municipal and prefectural governments to update their long-term care service plans every three years.

The Japanese national LTC regulatory framework distinguishes five categories of LTCFs as detailed in Table 2. These are facilities that are specifically licensed to provide long-term care to their residents. In contrast to the United States, where for-profit facilities dominate the LTCF sector, non-profit facilities dominate this sector in Japan. The most vulnerable elderly population—those who require most nursing and medical care and those with the fewest economic means—are in non-profit facilities. For-profit assisted living

facilities have been increasing in number in recent years. Some of these for-profit facilities provide luxury living arrangements for the elderly. Generally speaking, these facilities cater to the more independent and hence less vulnerable population. They cannot provide LTC services to their residents unless they are specially licensed by the respective prefectural government to do so. (This means that residents in such facilities have to contract external LTC service providers should they need nursing care.) The fifth category of LTCFs listed in our table, therefore, refers to those assisted living facilities specifically licensed to operate as LTCFs. They are subject to more stringent staffing regulations than assisted living facilities.

Table 2. Five Categories of Residential LTCFs in Japan								
Category	Description	Breakdown by	Number of	Number of	Number of			
		provider type	facilities	beds	residents			
(i) Special	Residential facilities that provide non-	Non-profit social welfare	7,891	542,498	485,795			
nursing homes	medical nursing care for elderly who require	corporations 94.8%						
	highest level of LTC.							
(ii) Long-term	Facilities that provide nursing care to	Non-profit medical	4,322	372,679	308,271			
care health	elderly who are undergoing rehabilitation	corporations 75.3%						
facilities	with the goal of returning home (Non-profit social welfare						
		corporations. 15.0%						
(iii) Sanatorium	Hospitals that provide medical care to	Non-profit medical	1,196	53,352	45,359			
medical	elderly patients requiring nursing care	corporations 83.4%						
facilities		Local governments 5.0%						
(iv) Social	Social welfare residential facilities for	Non-profit social welfare	5,293	152,819	140,173			
welfare facilities	elderly who find it difficult to live at home	corporations 76.6%		(the total for	(the total for			
for elderly	due to non-age-related disabilities, lack of	Local governments 14.8%		LTFCs that	LTFCs that			
citizens	economic means and/or family support			responded to	responded to			
				the survey)	the survey)			
(v) For-profit	For-profit elderly assisted living facilities	For-profit firms 82.6%	3,789	230,012	204,251			
LTCFs	specifically licensed to provide LTC	Non-profit medical		(estimated	(estimated			
	services to their residents	corporations 7.6%		from MHLW	from. MHLW			
		Non-profit social welfare		2018b)	2018b)			
		corporations 5.4%						

Note: The figures for the numbers of facilities, beds and residents are from 2017. The figures for the first to third categories come from MHLW, 2018a; and the figures for the fourth and fifth categories from MHLW, 2018b

The two types of non-profit organizations that dominate the Japanese LTCF sector-social welfare corporations and medical corporations-have very little in common with American non-profit organizations. Let us focus on social welfare corporations to illustrate the difference. Social welfare corporations are a legal category for entities that are specifically created with the purpose of contracting out public welfare services. Just as governmental social welfare agencies do not make profit out of providing public services, social welfare corporations do not make profits on the services covered by the LTCI system. Their activities consist of operating residential and non-residential LTC services and other social welfare services. Once licensed, social welfare corporations are required by law to submit annual financial statements to the local government officials overseeing the LTCF sector, who audit the LTCFs every few years.

For-profit LTCFs—category five in Table 2—are dominated by for-profit companies, some of which operate multiple facilities. However, Table 2 shows that a small percentage of them are operated by the two types of non-profit organizations. This is because these non-profit organizations are allowed to provide for-profit services that are not reimbursable from the LTCI. Every provider of for-profit LTCFs needs to be licensed by the prefectural government.

Three Features of the Japanese LTCF Sector and Pandemic Response

Three features of the Japanese LTCF sector explain why they could swiftly and successfully act upon the MHLW guidelines issued in January/February. These features are: (i) the presence of hierarchically organized government agencies whose sole missions are elderly care; (ii) the presence of effective communication channels between LTCFs and the regulatory authorities; and (iii) the well-established routine protocols of prevention and control in LTCFs.

First, the Japanese LTC-related government agencies are organized hierarchically at each level of local governments (i.e. prefectures, specially designated cities and other municipalities). These agencies exclusively focus on LTC issues. The command and oversight structure is streamlined in Japan. Contrast this to the US, where numerous agencies—such as county-level and state-level health departments, Veterans' Affairs, Centers for Medicare & Medicaid Services, Centers for Disease Control and Prevention -- crowd the regulatory and advisory landscape. At the top of the Japanese hierarchy is the Bureau of Health and Welfare for the Elderly in the MHLW. Local governments have specific departments that liaise with this Bureau. For instance, when the MHLW periodically updates the prevention and control guidelines for the LTCFs, local government officials overseeing LTCFs ensure that the key points are clearly communicated to LTCFs (based on our interviews with Kanagawa prefectural officials). MHLW's various warnings and guidelines for COVID-19 hence trickle down by way of a routine bureaucratic and institutional procedure.

Second, communications between municipal governments and LTCFs are more frequent, because most of Japan's LTCFs are operated by special types of non-profit organizations that function as governmental partners. Furthermore, given the highly regulated nature of the LTCF sector and the impact of national policies on their revenues and management decisions, trade associations play an important role as intermediaries between government authorities and their members—i.e. LTCFs and providers of in-home-care services. It should be emphasized that the Japanese government authorities also possess important channels of communication with for-profit facilities. As already mentioned, forprofit LTCFs are licensed by prefectural governments. For the purpose of better oversight and communication with for-profit nursing homes, the MHLW grants special powers and imposes obligations on the trade association of for-profit nursing homes as codified in Article 30 of the Act on Social Welfare for the Elderly. This law defines the trade association's mission as an intermediary between the supervisory authorities and the member facilities for the purpose of better oversight. In other words, even the trade association of for-profit corporations closely works with local government regulators. Our interviewees at the Prefectural Government of Kanagawa (a populous prefecture in Greater Metropolitan Tokyo) told us that they had also contacted for-profit nursing homes. In the case of the February 24 MHLW notification, the LTCF personnel we interviewed stated that they had received the notification from the association of LTC facilities.

Some data indicate recent improvements in the governmental oversight of for-profit LTCFs and elderly assisted living facilities. Ever since the MHLW has required prefectural governments to monitor more closely the for-profit sector, the compliance rate with government regulations has jumped from 80.1% in 2011 to 97.1% in 2017 (MHLW 2018c). The trade association plays an important role in assisting the authorities by contacting its members and soliciting documentation.

Thirdly, Japan's well-established routine protocols for communicable disease prevention and control in LTCFs played an important role. Since 2000 the MHLW guidelines for prevention and control have required that each LTCF set up an internal prevention and control committee. This committee approach is geared toward involving different types of employees, including not only the medical staff but also non-medical care workers. The MHLW commissioned a survey of disease prevention and control practices in the first type of LTCFs, which take care of the most vulnerable. According to this survey, the legally required committees meet frequently (Mitsubishi Research Institute Inc., 2019). Nearly half of the prevention and control committees meet more than bi-monthly and 90% of them meet multiple times per year. The survey also demonstrates the effective compliance of protocol in handling residents infected with common communicable diseases such as the seasonal flu and gastroenteritis.

As noted earlier, Japanese LTCFs are used to handling outbreaks of influenza and gastroenteritis. During any flu season, LTCF workers use face masks, monitor residents' conditions and isolate the sick. When the public health authorities report flu outbreaks in the community, LTCFs activate higher levels of prevention and control protocols, including suspending social events for residents and restricting family visits. Therefore, when the

MHLW alerted the LTCFs to lockdown, some had already been isolating their residents and simply extended the lockdown and the rest of the LTCFs followed suit. Certainly, COVID-19 has impacted all five types of LTCFs in Japan. Our survey of newspaper articles indicates that large clusters of infections in LTCFs have been very rare in Japan. This also applies to for-profit LTCFs.

The LTC personnel we interviewed told us that they did not do anything special for COVID-19 but simply adopted the same routine protocols they always follow during any flu season. However, our interviews revealed that there was one extra (unusual) precautionary measure adopted for COVID-19. Some LTCF workers were asked by their employers to limit social interactions in their private lives in order not to contract and bring the virus into their workplace. We speculate that the absence of COVID-19 testing and a shortage of PPE might have been the reason behind such an unusual request.

In support of the explanation offered in this paper, there is some evidence to show that the incidence of healthcare-associated infections might be lower in Japan. One study of LTCFs in the Osaka area reports that the overall frequency of healthcare associated infections was low (0.18 per 1,000 resident days) relative to Western countries (1.8-13.5 per 1,000 resident days) although the author cautions that the numbers are not completely comparable (Kariya et al., 2018).

Conclusion

LTCFs, which house the most vulnerable population, are at the front line of the fight against COVID-19. Countries that succeeded in keeping COVID-19 out of LTCFs were able to reduce the number of deaths by a large margin. Although Japanese political leaders have not been very aggressive in their fight against the pandemic, the Japanese routine protocols of prevention and control of communicable diseases in the LTCF sector resulted in a swift decision to isolate the most vulnerable from viral transmission. The routine institutional response of the LTCF sector proved to be critical in fighting against COVID-19. Compared to Japan, restrictions on family visits for the purpose of prevention and control have not been usual responses to the seasonal flu in Europe and in the United States. We speculate that this may have led Western countries to delay their decision to isolate LTCFs until it was too late.

Counterintuitively, the silent success of Japan's institutional response has resulted in an underappreciation of the massive efforts undertaken by LTCFs to protect their residents. Politicians and the general population are largely ignorant of the role that LTCF workers have played in Japan's fight against COVID-19. If the government fails to properly acknowledge and provide them with the necessary PPE to cope with the second and the third waves, the exhausted LTCF workers may not be as effective in the next round. A lockdown of LTCFs is an emergency measure and cannot be a long-term solution. Japan has been fortunate to have effective protocols in place when the pandemic hit. However, without the Japanese government's effective leadership and resource mobilization in scaling up testing of LTCF workers, residents and family members, Japan's LTCFs might not be spared from tragedy in the months to come.

Note 1

We interviewed government officials and LTCF personnel as a way of supplementing our analysis based on government documents and other sources mentioned in this paper. Our interviews included four interviews of government officials with direct responsibilities to oversee LTCFs—both at the prefectural and national levels—and five interviews of LTCF personnel. We asked LTCF personnel about: (i) the timing of their decision to lockdown the facility; (ii) the role of the MHLW directives in their decisions; (iii) how they were notified of the MHLW directive (either via local governments and had received; and (iv) whether they had adopted any special prevention and control measures to deal with the new virus. We asked the officials about their routine channels of communications with different levels of the government and with individual LTCFs and whether they relied on the same channels of communication during the pandemic or not.

Our interviewees included:

The Ministry of Health, Labour and Welfare (an official with a nursing certification in the special New Corona Virus Taskforce) on May 26, 2020.

Shizuoka Prefectural Government (an official with a nursing certification in charge of COVID-19 consultations), May 29th, 2020.

Kanagawa Prefectural Government (two officials at the New Corona Virus Communicable Disease Task Force and two officials at the Elderly Welfare Section) on June 30 and July 9, 2020.

One physician, certified care worker, care managers, facility manager at four LTCFs in Chiba and Kanagawa Prefectures on May 27, 28 and 29, June 1 2020.

References

Campbell, J. C. & Ikegami, N. (2000). Long-term care insurance comes to Japan. *Health Affairs*.19(3), 26-39. https://doi.org/10.1377/hlthaff.19.3.26

Centers for Disease Control (2020). Weekly updates by select demographic and geographic

characteristics. Retrieved August 30, 2020, from

https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#ExcessDeaths

- Cho, Hae-Wol. (2020). Effectiveness for the response to COVID-19: the MERS outbreak containment procedures. *Osong Public Health and Research Perspectives*. 11(1), 1-2.
- Comas-Herrera, A., Ashcroft, E. C., & Lorenz-Dant, K. (2020, May 2). International examples of measures to prevent and manage COVID-19 outbreaks in residential care and nursing home settings. Retrieved June 16, 2020, from https://ltccovid.org/wpcontent/uploads/2020/05/International-measures-to-prevent-and-manage-COVID19infections-in-care-homes-2-May-1.pdf
- Comas-Herrera, A., Zalakain, J., Liwtin, C., Hsu A.T., Lemmon, E., Henderson, D., & Fernandez, J.L. (2020). Mortality associated with COVID-19 outbreaks in care homes: early international evidence. Retrieved June 30, 2020, from https://ltccovid.org/wp-content/uploads/2020/06/Mortality-associated-with-COVIDamong-people-who-use-long-term-care-26-June.pdf
- Financial Times. (2020). *Excess mortality during the Covid-19 pandemic*. [Data set]. GitHub. Retrieved June 16, 2020, from https://github.com/Financial-Times/coronavirusexcess-mortality-data
- INED (the French Institute for Demographic Studies). (2020). Demographics of COVID-19 death data. Retrieved August 31, 2020. https://dc-covid.site.ined.fr/en/data/
- *Kaigo shisestu de shibou zentai no juyon-pa-sento* [Fourteen percent of death by COVID-19 occurs in LTCs]. (2020, May 13). The Kyodo News Service. Retrieved June 16, 2020, from https://www.47news.jp/4808143.html
- Kariya, N., Sakon, N., Komano, J., Tomono, K., & Iso, K. (2017). Current prevention and control of health care-associated infections in long-term care facilities for the elderly in Japan. *Journal of Infection and Chemotherapy*. 24(5), 347-352. https://doi.org/10.1016/j.jiac.2017.12.004
- Lum, T., Shi, C., Wong, G., & Wong, K. (2020). COVID-19 and long-term care policy for older people in Hong Kong. *Journal of Aging & Social Policy*. https://doi.org/10.1080/08959420.2020.1773192
- Ministry of Health and Welfare (Government of South Korea). (2020, Feb 16). *COVID-19 Response Meeting Presided Over by the Prime Minister.* http://www.mohw.go.kr/eng/nw/nw0101vw.jsp?PAR_MENU_ID=1007&MENU_ID =100701&page=3&CONT_SEQ=352978

- Ministry of Health, Labour and Welfare (Government of Japan). (2014). *Heisei nijyuroku nen kosei rodo hakusho* [Health, Welfare and Labour White Paper 2014]. https://www.mhlw.go.jp/wp/hakusyo/kousei/14/dl/1-01.pdf
- Minister of Health, Labour and Welfare (Government of Japan). (2017). *Annual Health, Labour and Welfare Report 2017.* https://www.mhlw.go.jp/english/wp/wphw11/dl/10e.pdf
- Ministry of Health, Labour and Welfare (Government of Japan). (2018a). *Heisei-niju-kyu-nen kaigo sa-bisu shisetsu jigyousho chosa no gaikyo* [Summary of the survey of Institutions and Establishments for Long-term Care]. https://www.mhlw.go.jp/toukei/saikin/hw/kaigo/service17/index.html
- Ministry of Health, Labour and Welfare (Government of Japan). (2018b). *Heisei-niju-kyunen shakaifukushi shisetsu nado chosa no gaikyo* [Summary of the survey of Social Welfare Institutions] https://www.mhlw.go.jp/toukei/saikin/hw/fukushi/17/index.html
- Ministry of Health, Labour and Welfare (Government of Japan). (2018c). Yuuryo ro-jin-homu ni kansuru saikin no sesaku doukou [Recent policy trend on for-profit elderly residential facilities].

https://www.yurokyo.or.jp/kakodata/member/sec/info/pdf/20180615_01.pdf

- Ministry of Health, Labour and Welfare (Government of Japan). (2020a). *Shingata korona uirusu kansenshou no kokunai hassei doukou*, August 5, 2020 [Domestic outbreaks of novel Coronavirus infections, August 5, 2020]. Retrieved August 30, 2020, from https://www.mhlw.go.jp/content/10906000/000657357.pdf
- Ministry of Health, Labour and Welfare (Government of Japan). (2020b). "Shingata korona uirusu ni kansuru Q&A" nado no shuuchi ni tsuite [Sharing of Q&A on the new corona virus and other information]. Retrieved June 21, 2020, from https://www.fukushihoken.metro.tokyo.lg.jp/kourei/hoken/kaigo_lib/info/saishin/sais hin.files/jouhou_756.pdf
- Ministry of Health, Labour and Welfare (Government of Japan). (2020c). *Shakaifukushi-shisetsu nado niokeru shingata korona-uirusu eno taiou ni tsuite* [Responses to novel Coronavirus in social welfare facilities]. Retrieved June 16, 2020, from https://www.mhlw.go.jp/content/1090000/000596202.pdf
- Ministry of Health, Labour and Welfare (Government of Japan). (2020d). Shakaifukushishisetsu nado niokeru kansen-kakudai-boushi no tameno ryuiten ni tsuite [Precautions to prevent the epidemic of infection in social welfare facilities]. Retrieved June 16, 2020, from https://www.mhlw.go.jp/content/10900000/000599388.pdf

Mitsubishi Research Institute Inc., (2019). Koureishashisetsu ni okeru kansenshoutaisaku ni

kansuru chousakenkyujigyo houkokuhso [Report on measures to prevent infectious diseases in long-term care facilities]. Retrieved August 30, 2020, from https://www.mri.co.jp/knowledge/pjt_related/roujinhoken/dia6ou00000204mw-att/H30_098_2_report.pdf

- Reynolds, I. (2020, May 28). Masks helped keep Japan's COVID-19 death toll low, says expert panel. *The Japan Times*. https://www.japantimes.co.jp/news/2020/05/28/national/science-health/masks-helpedfight-coronavirus/#.XuZr_y85TyV
- Sachs, Jeffrey. (2020). The East-West. Divide in COVID-19 Control. Retrieved on May 23, 2020, from https://www.project-syndicate.org/commentary/west-must-learn-covid19-control-from-east-asia-by-jeffrey-d-sachs-2020-04?barrier=accesspaylog.
- Tokyo Medical Association. (2020). *Koreisha shisetsu ni okeru shingata korona uirusu kansenjokyo to kongo no taisaku ni tsuite* [The status of the new corona virus infection in elderly facilities and preventive measures going forward]. Retrieved on August 1, 2020, from https://www.tokyo.med.or.jp/wpcontent/uploads/press_conference/application/pdf/ 20200730-2.pdf
- World Health Organization. (2019). *World Tuberculosis Report 2019*. https://www.who.int/tb/publications/global_report/en/
- World Health Organization. (2020). Supporting older people during the COVID-19 pandemic is everyone's business. Retrieved August 30, 2020, from https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/4/supporting-older-people-during-the-covid-19-pandemic-is-everyones-business