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Health policy reforms in South Korea between 2015-2020 and their impact on the COVID-19 crisis

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Citation

Trichard, F. (2022). *Health policy reforms in South Korea between 2015-2020 and their impact on the COVID-19 crisis*.

Version: Not Applicable (or Unknown)

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Master thesis

Health policy reforms in South Korea between 2015-2020 and their impact on the COVID-19 crisis

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July 1st, 2022

Master of Asian Studies: Politics, Society and Economy of Asia
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Academic year: 2021-2022

Abstract

South Korea is seen globally as an example of efficient COVID-19 response. Yet, advocates of this “South Korean model” tend to focus on high technology with a short-termed securitisation perspective, and fail to appreciate the importance of the health reform process happening prior to the COVID-19 crisis. A significant number of health reforms took place between 2015 and 2020, aiming specifically at improving the Korean infectious disease response system. These reforms resulted from the failure of containing the Middle East respiratory syndrome–related coronavirus outbreak (MERS-CoV), which hit South Korea in 2015 and escalated dramatically due to poor crisis management and lack of an efficient infectious disease response system. This thesis will demonstrate that the health reform process between 2015 and 2020 was democratic and enabled South Korea to respond to the COVID-19 pandemic.

Table of content

| | |
|--|----|
| Introduction | 6 |
| <i>Theoretical framework</i> | 8 |
| <i>Methodology</i> | 9 |
| | |
| I. Timeline of the MERS outbreak in South Korea and political crisis | 11 |
| 1) Timeline of the MERS outbreak in South Korea: a political crisis due to the lack of transparency..... | 12 |
| 2) Political actors and the transparency issue during MERS crisis | 14 |
| | |
| II. Transparency and information sharing reforms | 20 |
| 1) Amendments and policy reforms..... | 21 |
| 2) Impact on COVID-19 crisis..... | 23 |
| | |
| III. Healthcare delivery and health institutions' reforms | 26 |
| 1) Shortcomings of health institutions during the MERS crisis..... | 26 |
| 2) Health institutions' reforms after 2015 in South Korea..... | 28 |
| 3) Impact on COVID-19 crisis..... | 33 |
| | |
| IV. Private data reforms and controversies related to contact tracing | 36 |
| 1) Private data in the case of contact tracing..... | 36 |
| 2) Controversies related to breach of privacy related to contact tracing during the COVID-19 crisis..... | 40 |
| | |
| Conclusion | 42 |
| | |
| Primary sources and Bibliography | 45 |
| Appendix..... | 52 |

Notes

In the thesis, Korean names are presented following the Korean order (Family name – First name). However, for harmonisation purposes, the Korean names are written in the Western order in the bibliography (First name – Family name).

In September 2020, the KCDC (Korea Centers for Disease Control and Prevention) was expanded and renamed KDCA (Korea Disease Control and Prevention Agency). In this thesis, we are going to use the terminology KCDC, as the focus period is 2015-early 2020, and the official documents and references used for this research all include the terminology KCDC. However, it is important to know that documents from December 2020 onwards use the terminology KCDA.

Glossary

Cheong Wa Dae: also named Blue House, executive office of the President of South Korea

KCDC: Korea Centers for Disease Control and Prevention (질병관리본부). In September 2020, it was renamed Korea Disease Control and Prevention Agency (KCDA).

Mayor/Do: designates governors of a city (Mayor) or a province (Do). There are 9 provinces in South Korea.

MOHW: Ministry of Health and Welfare

NPAD: New Politics Alliance for Democracy (새정치민주연합), political party of centre/centre-left orientation. In December 2015, it was renamed Democratic Party of Korea (DPK).

Saenuri: literally “New Frontier Party” (새누리당), political party of right-wing and conservative orientation. After Park Geun-hye's impeachment in 2017, it was renamed "Liberty Korea Party" (자유한국당).

Si/Gun/Gu: designates the Korean administrative divisions: Si (city), Gun (county), Gu (district).

SSiS: Social Security Intelligence Service

SMG: Seoul Metropolitan Government

ROK: Republic of Korea (ie. South Korea)

Introduction

In 2020, South Korea was the second country in the world infected by the 2019 novel coronavirus (2019-nCoV), or COVID-19. As the first country to face the virus outside of China, it had a major impact on the overall direction of the pandemic. As soon as they received the first alerts of an unknown form of severe pneumonia from the Wuhan region in late 2019, the Korea Centers for Disease Control and Prevention (KCDC) started reporting information to the public and investigating. Due to geographical proximity and high influx of travel between China and South Korea, the health authorities were particularly worried about the possibility of contagion and started enhancing quarantine and screening measures in early January 2020. On February 4th 2020, South Korea was the first country in the world to develop and approve a licence for a COVID-19 nasal test. When the World Health Organisation recognised COVID-19 as a pandemic on March 11th, the KCDC had already implemented a containment and mitigation strategy, based on massive testing, forced quarantine and contact tracing. Since then, several researchers, governments and organisations (including the WHO itself) have recognised South Korea as a model country in dealing with the pandemic.

An important part of current literature and media coverage on South Korean response to COVID-19 focuses on the use of high technology and private data collection. For example, the Leiden Asia Centre published in May 2020 a report on how Asian countries tackled the COVID-19 crisis through technologies¹. In the article focusing on South Korean response to the pandemic², the authors showed that the early success in outbreak containment was due to quickly embracing surveillance technology through big data, applications and private data collection, and concluded that the Korean government's response to COVID-19 was now embedded in policy and law.

1 Leiden Asia Centre, *How Asia Confronts COVID-19 through Technology*, May 2020.

2 Anoma P. van der Veere, Sungbin Ha, "South Korea: Containing COVID-19 through Big Data" in *How Asia Confronts COVID-19 through Technology*, Leiden Asia Centre, May 2020.

However, few articles consider the health reform process prior to the COVID-19 crisis. While it is a given fact that technologies were widely used and there were indeed several controversies surrounding breach of privacy related to data collection from government agencies, the analysis of the health reform process prior to COVID-19 is generally missing from the literature. It is a problem for two reasons: first, it undermines the democratic reform processes in South Korea as well as instances of democratic control from the population when controversies emerge. Secondly, it also undervalues the importance of reforming healthcare systems after a crisis (in this case, MERS) and the impact it can have on following crises afterwards, which is yet the key to update national preparedness for future infectious disease outbreaks.

In 2015, South Korea experienced an outbreak of the Middle East respiratory syndrome–related coronavirus (MERS-CoV). Originally discovered in Saudi Arabia in 2012, MERS entered South Korea in May 2015, and created a total of 186 cases (including 38 deaths), which represented the biggest outbreak outside of the Middle East. In the following years, several public actors have highlighted the flaws in Korean health security capabilities, and how the contagion could have been easily prevented. A series of health reforms happened afterwards, aiming at improving public infectious disease response capabilities in the country. In 2020, the Korean epidemics response system was vastly different from 2015, and the response to COVID-19 was a complete opposite of what happened with MERS.

Literature on the MERS crisis is disparate. Several authors have highlighted the failures of MERS crisis management and the need for important health reforms in South Korea regarding hospitals, healthcare delivery service, and health institutions (Chulwoo Park, Kyungwoo Kim, Kyoo-Man Ha, Myoung-Don Oh, etc³). However, most of the literature on MERS was written prior to the COVID-19 crisis, and hence does not link the health reform process following 2015 to its potential application in 2020. Very few research articles actually relate South Korean COVID-19 response to the experience of MERS in 2015, except for example "Emerging COVID-19 success story: South Korea learned the lessons of MERS" written by June-Ho Kim in 2021⁴. Besides, in this article, only a few policies regarding healthcare institutions are pointed out, and themes such as transparency and private data are not mentioned. As of now, no research has analysed yet the law reforms of the Infectious Disease Control and Prevention Act between 2015 and 2020. This thesis will first and foremost focus on this specific gap in literature.

³ See bibliography.

⁴ June-Ho Kim, Julia Ah-Reum An, Seung-Ju Jackie Oh et al., "Emerging COVID-19 success story: South Korea learned the lessons of MERS", *Our World in Data*, March 5th, 2021.

Theoretical framework

Regarding health policies in the international relations discipline, there are two main theories: the statist and globalist approaches. According to Sara E. Davies, the statist approach is focused on security and the role of health in the State's national, foreign and defence policies. Security is a major factor because States are more likely to take health issues seriously if they are considered a security threat, at the same level as others. On the other hand, the globalist approach is based on the purpose of promoting health equity and on the idea that individuals should be the core referent in global health policies: rather than the State, other systems of governance, such as international organisations, can be prioritised if they are assumed to better protect individuals. The globalist approach is a human-centred, long-term perspective, while the statist approach is a short-term perspective⁵.

The statist approach is linked to the securitisation theory. According to the *International Relation Theory* manual, in the securitisation theory, “*political issues are constituted as extreme security issues to be dealt with urgently when they have been labelled as ‘dangerous’, ‘menacing’, ‘threatening’, ‘alarming’ and so on by a ‘securitising actor’ who has the social and institutional power to move the issue ‘beyond politics’*”. An issue is “securitised” when these two factors are present: an audience recognises the urgent nature of the threat, and agrees to take extraordinary measures, including ones that could be considered undemocratic in normal situations⁶.

When securitisation theory is applied to health, it is mainly for infectious diseases, as they are often perceived as an urgent threat for the state due to their mortality and potential for societal disruption. However, a securitised approach of infectious disease is short-termed, focused on protection and containment strategies from the state when an outbreak occurs, rather than analysing and treating root causes or contributing factors such as inequalities, poverty, lack of access to health or education, etc, which can also have an influence on the trajectory of an infectious disease⁷.

5 Sara Davies (2010) What contribution can International Relations make to the evolving global health agenda? *International Affairs*, Vol. 86, No.5, pp. 1167-1190

6 Clara Eroukhmanoff, “Securitisation Theory: An Introduction” in *International Relations Theory*, E-International Relations Publishing, 2017.

7 Sara Davies (2010) What contribution can International Relations make to the evolving global health agenda? *International Affairs*, Vol. 86, No.5, pp. 1167-1190

In the case of COVID-19, a securitisation approach would focus on a state's actions to contain the virus and protect the population from its country. It is a short-term crisis perspective, which also assumes that the country was unprepared to a certain extent and the state hence had to resort to extraordinary measures to contain the pandemic, including undemocratic decisions which could potentially strengthen state power.

In this thesis, I am going to look at whether South Korea used a securitisation approach to tackle COVID-19, or if the response to the pandemic was actually the result of a previous process of updating national preparedness capacities and health institutions prior to the crisis. My research question is: to what extent did the MERS experience influence health reforms in South Korea between 2015 and 2020, and how did they impact the COVID-19 response?

My hypothesis is that the experience of the MERS crisis influenced a series of health reforms between 2015 and 2020 in South Korea, which laid the foundations of the Korean response to COVID-19. Hence, the latter was not securitisation, but the result of a long-term democratic process.

Methodology

There are three approaches in measuring influence: assessing the degree of preference attainment, attributed influence and process-tracing. Methodological triangulation is the combination and cross-checking of these three methods on a specific study.

Assessing the degree of preference attainment means measuring the ability of actors to get what they want. It consists in comparing the ideal points of actors with the outcomes of political processes⁸. Meanwhile, attributed influence is determined through declarations from public actors

8 Andreas Dür (2008), "Measuring Interest Group Influence in the EU – A Note on Methodology", *European Union*

about their (or someone else's) presumed influence. For this thesis, I am going to use primary sources such as public statements from health institutions (KCDC and the Ministry of Health and Welfare), but also secondary sources such as newspaper articles quoting politicians, international organisations and experts, in order to assess if the reforms made after 2015 were attributed to the influence of the MERS experience, according to key actors.

Process-tracing consists in identifying a decision-making process. It is the causal process between a person/group's preference, their influence attempts, decision-makers responses, and the final outcomes. In this thesis, I am going to look at the health reform process between the MERS crisis in 2015 and the COVID-19 outbreak, based on the Infectious Disease Control and Prevention Act (2009), which was amended 11 times between 2015 and early 2020. For that purpose, I identified all newly added articles during this time period.

To answer the research question, I am going to proceed in two parts: first, I am going to analyse the political crisis that emerged during the MERS outbreak in South Korea and statements from various political actors attesting their preference attainment and attributed influence.

Secondly, I am going to do the process tracing of health reforms during the 2015-2020 period, based on the Infectious Disease Control and Prevention Act amendments, and focusing on three different themes: transparency, health institutions, and private information regulations. I chose these policy themes because they are directly linked to the effectiveness of quarantine orders and contact tracing. Each part will also analyse the impact of these reforms on the COVID-19 crisis and therefore check if there were also instances of securitisation strategies.

I. Timeline of the MERS outbreak and political crisis

The *Middle East respiratory syndrome–related coronavirus* (MERS-CoV) is a virus of the coronavirus species, which was discovered in April 2012 in Saudi Arabia. MERS-CoV is believed to have originated from bats, but infected humans through camels. As of February 2022, a total of 2,585 cases of Middle East respiratory syndrome (MERS) were reported since 2012, most of them being located in the Middle East region, more specifically Saudi Arabia (2,184), and with a fatality rate estimated at 35%.

In South Korea, the MERS outbreak started in May 2015, with a 68-year-old patient (patient 0), who was returning from a business trip in the Arabian Peninsula. In a ten day span, he visited 3 different hospitals before being diagnosed, and ended up transmitting the virus to 28 individuals – which later transmitted MERS to other people, particularly through intra-hospital contamination. Twenty-four hospitals across the country were revealed to have been contaminated with MERS on June 7th, 2015⁹. In total, South Korea reported 186 MERS cases, including 39 deaths (fatality rate of 21%), making it the second country with the biggest MERS outbreak after Saudi Arabia. A total of 16,752 individuals were given quarantine orders¹⁰.

One of the key problems of the MERS crisis in South Korea was transparency and information sharing. Chulwoo Park explains: “*Hospitals were not professional enough to deal with infection control. Since there was no obligation to share MERS information to the public, the Samsung Medical Center refused to initially share, which exacerbated the outbreak.*”¹¹. To understand the controversies that happened at that time and the actors involved, we first need to take a look at the timeline of MERS in South Korea and how the failure in outbreak containment turned into a complex political crisis.

9 “S. Korea identifies 24 MERS-affected hospitals”, *Yonhap News Agency*, June 7th, 2015.

10 Chulwoo Park (2019) “MERS-CoV infection in South Korea and strategies for possible future outbreak: narrative review”, *Journal of Global Health Reports*.

11 Chulwoo Park (2019) “MERS-CoV infection in South Korea and strategies for possible future outbreak: narrative review”, *Journal of Global Health Reports*.

1) **Timeline of the MERS outbreak in South Korea: a political crisis due to the lack of transparency**

On May 20th, the first Korean patient was diagnosed with MERS at Pyeongtaek St.Mary's Hospital, after having previously visited two other hospitals, which failed to give him a correct diagnosis. The original reports from the Minister of Health and Welfare did not mention the hospitals' names (presented as “Hospital A”, “Hospital B”, etc). As the number of cases increased, the transmission mode was revealed to be mostly intra and inter-hospitals, with new patients being mainly medical personnel, patients who came into contact with confirmed MERS cases, or visitors who came into contact with MERS cases. As a result, a large demand emerged from civil society to reveal infected hospitals' names so that individuals could take precautionary measures. However, despite strong pressure from civil groups, local governments as well as opposition parties, the government refused to reveal more information – according to the Health minister Moon Hyung-pyo, to avoid “*unnecessary fear and stigmatisation*”¹². During their press briefing of June 2nd, the Ministry of Health and Welfare added again that the hospitals' names would be disclosed to health professionals but not the public, “to avoid misunderstanding and excessive anxiety”, justifying this choice by mentioning that “*names of hospitals are not revealed to the public even in advanced countries*”¹³.

On June 4, it was revealed that Patient 35 had attended a large gathering with more than 1,500 people a few days before being diagnosed with MERS¹⁴. This event added pressure to the government, as more and more actors took stands against the current policy and criticised the overall lack of communication and transparency from the government regarding MERS. Hence, the political situation in South Korea during MERS crisis can be summarised as such:

Table 1 – Political actors involved in the MERS crisis in South Korea and their preference attainment

| | |
|---|----------------------------------|
| <i>Government (Park Geun-hye's administration)</i> | <i>Civil groups</i> |
| | <i>Local governments</i> |
| | <i>Opposition parties</i> |

12 Claire Lee, “Korea names MERS-affected hospital, tracks all visitors”, *The Korea Herald*, June 5, 2015.

13 Ji-hye Shin, “Korea mulling disclosure of MERS-affected hospitals, *The Korea Herald*, June 2, 2015.

14 Patient 35 was later revealed to have been diagnosed at Samsung Medical Center in Seoul, creating a peak of MERS cases in this hospital, which then became the most infected medical facility in South Korea, with more than 90 cases (WHO, MERS webpage).

| | |
|--|---|
| Low transparency | Advocating for more transparency and communication |
| Unwilling to reveal hospitals' names to prevent <i>'unnecessary fear and stigmatisation'</i> | Willing to reveal hospitals' names |
| Centralised power (no communication to local governments or coordinated action) | Decentralised power: advocating for more power to local governments and local initiatives |

On June 7th, the Korean government changed strategy and Prime Minister Choi Kyung-hwan eventually revealed the list of the 24 infected hospitals. Among them, six had confirmed cases of MERS, while the 18 others had MERS patients passing through them. At the press conference, Choi Kyung-hwan explained: *“We're disclosing the hospitals where patients have been diagnosed with MERS, so that we can ensure the people's safety. MERS has been spreading across these hospitals, and it forces us to impose strict control on them. Hospitals with confirmed MERS cases in the future will be identified as well.”*¹⁵.

Table 2 – List of the 6 hospitals with confirmed cases of MERS, as revealed by the government on June 7th, 2015.

| Name | City | Region |
|-------------------------------|-------------|----------------------------|
| Samsung Medical Center | Seoul | Gyeonggi Province |
| Pyeongtaek St.Mary's Hospital | Pyeongtaek | Gyeonggi Province |
| 365 Open Clinic | Seoul | Gyeonggi Province |
| Asan Seoul Clinic | Asan | South Chungcheong Province |
| Dae Cheong Hospital | Daejeon | Hoseo |
| Kongyang University Hospital | Daejeon | Hoseo |

To understand what caused this change of direction by the Korean government, we are going to look at statements and attributed influence from the three opposing groups: civil society, opposition parties and local governments.

¹⁵ “S. Korea identifies 24 MERS-affected hospitals”, *Yonhap News Agency*, June 7, 2015.

2) Political actors and the transparency issue during MERS crisis

- **Civil society**

Civil society reacted quickly to the MERS crisis. On June 2nd, a local civic group (“Pyeongtaek Advocacy Group”), called for making hospital information public. The group represented the region where the first case of MERS was diagnosed, however the name of the hospital involved in these cases was not made public until June 7th (later revealed to be Pyeongtaek St.Mary's Hospital). The group's representative criticised the general governmental response to the crisis: *“Fears are spreading fast but we have no idea of what the government is doing to deal with the issue. The government should be more responsible in handling the incident”*.¹⁶

On June 4th, several civic groups held a rally in front of the government complex in Seoul, protesting against the insufficient countermeasures and lack of information sharing.¹⁷

Picture 1 – Civic protest against the government countermeasures of MERS crisis, June 4th 2015, Seoul (Yonhap News Agency)¹⁸



16 Ji-hye Shin, “Korea mulling disclosure of MERS-affected hospitals, *The Korea Herald*, June 2, 2015.

17 Min-sik Yoon, “Citizens take initiative in MERS fight”, *The Korea Herald*, June 4, 2015.

18 Min-sik Yoon, “Citizens take initiative in MERS fight”, *The Korea Herald*, June 4, 2015.

*Placard messages, from left to right: "I cannot live because I am anxious!"
"I am sick of the "secret room" administration!"
"NO to information control!"
General banner: "Apologise for the government total incompetence with MERS! Moon Hyung-pyo!
(Below: names of the civic groups represented)"¹⁹*

These examples show that civic groups hold the Korean government accountable for generating fear by its lack of communication on MERS. Low transparency, information control and inefficient outbreak countermeasures are interlinked problems. In particular, like we see on the example above, Health Minister Moon Hyung-pyo is directly held accountable and asked to take responsibility for MERS failures.

Additionally, polls showed that Park Geun-hye administration's approval rate fell during the time period. A survey made by Realmeter on 500 Korean adults (June 4th) showed that 70% people did not trust the government's MERS countermeasures. Another survey by Gallup Korea on 1,005 adults (June 2-4) showed that 55% disapproved of Park Geun-hye's administration. Among them, 16% quoted "lack of communication" as the reason, while 14% quoted specifically "government's lax countermeasures against MERS"²⁰. Overall, we can say that civic groups were vocal against the information control policy (more generally, government's MERS countermeasures as a whole) and, according to polls, this was an idea shared by a significant part of the general population.

- **Opposition parties**

Opposition parties also widely criticised government action and lack of transparency during the MERS crisis. Park Geun-hye was elected president in 2013 as the representative of the Saenuri Party, one of the two main political parties in South Korea since the 1990s. The Saenuri Party is classified as right-wing and conservative.

On June 3, Moon Jae-in, then head of the main opposition party New Politics Alliance for Democracy²¹, criticised the Ministry of Health and Welfare for its poor handling of the crisis and "incompetent response", saying public trust was already lost and asking the President to involve herself directly: "*The president should handle the matter herself and have Cheong Wa Dae take the*

¹⁹ nb. self-translation

²⁰ "Polls show Park's ratings fall", *The Korea Herald*, June 5, 2015.

²¹ After Park Geun-hye's impeachment in 2017, Moon Jae-in was elected as the new South Korean President.

role of a control tower”, while also adding that the government should form a pan-governmental response instead of focusing solely on the Ministry of Health and Welfare²². Opposition leaders are acknowledging the importance of a centralised, top-down control tool, but argue that the current government has failed to propose that, in particular by focusing its efforts only on the Ministry of Health and Welfare instead of having a more integrative approach based on interagency cooperation.

On June 7, head of the Saenuri Party Kim Moo-sung called for bipartisan efforts to help tackle the MERS crisis. For that aim, he met representatives from opposition parties, including Moon Jae-in. While agreeing on the need for bipartisan efforts, Moon Jae-in strongly criticised again the government's management of MERS crisis and failure of centralised control:

*"The government has failed, and the people have lost their trust. The president is nowhere to be seen. Without a control tower, the people are worried. The pressing matter is to ease their concerns and regain their trust."*²³

On June 4, NPAD representative Lee Jong-kul criticised the government's refusal to communicate information, and also accused Park Geun-hye of not involving herself enough and failing to acknowledge the seriousness of the crisis:

*My concern is the president hasn't realised how significant the crisis is. President Park attended the emergency countermeasures meeting for the first time in 13 days after the first patient was confirmed yesterday. It is regretful... that her orders [at the meeting] to stop the spread and notify the public of preventive measures appear to show that she is still not in sync with the level of crisis right now and far distant from the crisis felt among the people"*²⁴

The lack of transparency from the government, withholding information on MERS cases, is perceived by opposition leaders as a lack of competence rather than a deliberate policy. The various mentions of Park Geun-hye's absence is here more a criticism about the President not taking the crisis seriously and hence not making the necessary efforts to control the outbreak.

Lee Jong-kul also insisted on the lack of necessary expertise among government officials and held Health Minister Moon Hyung-pyo accountable for worsening the crisis: *"The crisis*

22 "S. Korea identifies 24 MERS-affected hospitals", *The Korea Herald*, June 7, 2015.

23 "S. Korea identifies 24 MERS-affected hospitals", *The Korea Herald*, June 7, 2015.

24 Jun-suk Yeo, "Lawmakers chide government over poor countermeasures", *The Korea Herald*, June 4, 2015.

appears to have worsened partly because the health minister and vice minister are not experts on medical and public health. The government needs to take countermeasures by listening to health experts and organisations before it becomes too late"²⁵. Three months later, in September 1st, 2015, President Park Geun-hye eventually dismissed Moon Hyung-pyo and appointed Chung Chin-young – a former doctor – as Health Minister²⁶. We can say that, by attributed influence, criticism from political leaders, as well as civic groups representatives, might have influenced the dismissal of Moon Hyung-pyo in favour of Chung Chin-young.

- **Local governments**

Finally, several local governments also advocated for more transparency and information sharing during the MERS crisis. They reproached the centralised control of information and lack of communication to local governments, which prevented them from implementing targeted containment strategies. This approach differs from the claims by opposition parties, as they are more in favour of a decentralised strategy integrating different levels of governance.

When it comes to local governments, lack of transparency is not solely a problem of fear and individual right to information, but also a concrete hindrance to local policies. Under the centralised, top-down control system of Park Geun-hye's administration, it was impossible for local governments to implement targeted countermeasures, as information was not shared with them.

In particular, Seoul's Mayor Park Won-soon (who was also from the opposition party NPAD) was very vocal about the lack of cooperation from the central government. In his speech during an emergency briefing session regarding Seoul Metropolitan Government's plan to prevent the spread of MERS (June 4th), he explained how the Ministry of Health and Welfare did not provide information regarding the super-spreader case (Patient 35), which was tested in a Seoul's hospital²⁷. When Patient 35 was revealed to have come into contact with more than 1,500 people at a gathering, Seoul Metropolitan Government asked the Ministry of Health and Welfare and the KCDC to publicise the information:

25 Chung-un Cho, "Blue House blasted for MERS response", *The Korea Herald*, June 3, 2015.

26 See Part I.

27 Later revealed to be Samsung Medical Center.

[Patient 35] tested positive for MERS on June 1. The information was known to us at the SMG in the late afternoon of June 3 (...). We thereupon asked the MOHW and the Korea Center for Disease Control and Prevention to publicise the fact and take countermeasures several times today.

The two agencies I have mentioned did not have accurate information on the 35th patient, the places he visited for the last two days, and the list of the 1,565 people at the gathering he attended. Later on, the MHW informed us that it would put the 1,565 people on passive surveillance.

We judged that a lukewarm measure like passive surveillance was not an adequate way to protect people's safety. We managed to secure the list of the 1,565 people and handed it over to the two agencies just mentioned. We asked them once again to publicise the relevant materials and take a more active measure. On the evening of Friday, we came to the conclusion that we had to actively involve ourselves in the case.

Seoul Mayor's Speech of June 4th, 2015.

Seoul's requests to the centralised health authorities were rejected. The Metropolitan government thus decided to act on their own, without going through the approval of the Ministry and KCDC, and published the information they acquired themselves on Patient 35 movements through their own epidemiologic investigation.

We see here a case of local government taking initiative over the central government and taking up duties which were under the responsibility of health authorities: epidemiological investigation and quarantine notice. It is also showing an attempt from the local government to have a bottom-up cooperation strategy, which was rejected by health authorities, and thus became an incentive for going against the government's official stance on information sharing. Seoul's Mayor was very vocal against the centralised approach to MERS countermeasures and its failures. During June 4th emergency press conference, he said “*we have entered the crisis and this means that the central control tower to combat MERS has collapsed*”²⁸.

The problem regarding local government and low transparency is further corroborated by a study made by Kyungwoo Kim and Kyujin Jung, published in the *Asia Pacific Journal of Public Health* in 2018. For this study, the researchers administered a survey to 169 organisations and conducted interviews with 11 national, regional and local government officials. The results showed

28 Hyun-ju Ock, “Doctor exposed more than 1,500 Seoul residents to MERS”, *The Korea Herald*, June 4, 2015.

that the communication mode during the MERS crisis was massively centralised, the government response was too slow, and the researchers concluded that national and subnational governments should improve interagency cooperation. One of the interviewees, a local government official, stated that following KCDC guidelines during the MERS crisis was difficult because of the disconnect between central and local governments: “*National officials tried to realise direction from upper level officials without considering the reality of local response settings.*”²⁹ Most interviewees also shared that the Ministry did not communicate risk information with other ministries and subnational governments. Two interviewees from subnational governments also shared that their organisations sought information about hospitals linked to MERS cases before the information was disclosed by the Ministry. It was also revealed that the national health information system did not allow local health agencies to input information, because local agencies were not delegated authority to confirm a viral infection, and hence had to rely on governmental agencies' limited expertise. They were also required to report first to the KCDC (which was largely understaffed) before publicising information. All these criteria resulted in slow updates and limited information available for all parties.

All in all, there was a unanimous stand from civil society, local governments and opposition parties alike against the government's strategy towards MERS in 2015. This common pressure influenced the government to change its original stance and communicate names of infected hospitals on June 7th, 2015. This also shows that the pressure for information sharing originated from democratic representatives (civic groups, opposition MPs, etc). On the opposite side, according to an article written by Kyoo-Man Ha (2016), the original government strategy to withhold information under the pretext of hospital protection, might likely have been based on nepotism³⁰; however, it cannot be proved with current data available.

In the following parts, we are going to do a process tracing of the health reforms following the MERS crisis and their impact on the Korean response to the COVID-19 outbreak.

29 Kyungwoo Kim, Kyujin Jung, “Dynamics of Interorganizational Public Health Emergency Management Networks: Following the 2015 MERS Response in South Korea”, *Asia Pacific Journal of Public Health* 2018, Vol. 30(3) 207–216

30 Kyoo-Man Ha, “A lesson learned from the MERS outbreak in South Korea in 2015”, *The Journal of hospital infection*, vol. 92,3 (2016).

II. Transparency and information sharing reforms

On June 10th, 2015, a joint mission started between South Korea and the World Health Organisation to evaluate the impact of MERS outbreak³¹. On June 19th, the WHO published a report on risk assessment of MERS in South Korea³², which included the following recommendations:

Specific Recommendations for the Government of the Republic of Korea

6. Local governments must be fully engaged and mobilised in the national fight against this outbreak.

7. In parallel with disease prevention and control measures, steps should be taken to strengthen domestic and international confidence and trust. The most important actions involve improving risk communications. The Ministry of Health and Welfare should provide regularly updated information (in Korean and English) on the epidemiological situation, investigations, and disease control measures.

Extract of the *MERS-CoV summary and risk assessment of current situation in Republic of Korea and China – as of 19 June 2015*, published by the World Health Organisation.

This extract shows that the WHO report corroborated the importance of giving more powers to local governments for infectious diseases control. The WHO encouraged the Korean central government to mobilise local governments for the MERS crisis instead of concentrating all the decision-making power. Like we saw previously, according to Seoul's Mayor Park Won-soon, there was a disconnect between the central government and local governments' initiatives in 2015: the central government did not provide enough information to other administrative entities, but also rejected the bottom-up initiatives taken by the local government of Seoul to help with MERS crisis management. The WHO risk assessment report highlighted that problem as well.

Secondly, the report emphasised the importance of improving communication. Specifically, it recommended the Korean government to improve information sharing regarding control measures, but also epidemiological investigation – and this information should be accessible in Korean as well as in English, for international audiences. These measures, according to the report, are linked to

31 https://www.mohw.go.kr/eng/nw/nw0101vw.jsp?PAR_MENU_ID=1007&MENU_ID=100701&page=9&CONT_SEQ=323272&SEARCHKEY=TITLE&SEARCHVALUE=mers

32 See appendix.

building domestic and international trust. Hence, the WHO recognised the demands made by civil society regarding transparency.

1) **Amendments and policy reforms**

Less than a month after, on July 6th, several new articles and paragraphs were added to the Infectious Diseases Control and Prevention Act. In particular, the two new paragraphs of the article 4 set down two important changes:

- the obligation from the State and local governments to share information
- the obligation for the State to cooperate with local governments.

Article 4 (Responsibilities of the State and Local Governments)

(3) The State and local governments (including superintendents of education) shall share information on infectious diseases and information on situations of the outbreak and prevalence thereof and mutually cooperate in order to efficiently treat such diseases and prevent the spread thereof. <Newly Inserted by Act No. 13392, Jul. 6, 2015>

(4) The State and local governments shall share the relevant information with medical institutions and medical personnel's associations prescribed in the Medical Service Act in order to surveil and prevent the outbreak of infectious diseases. <Newly Inserted by Act No. 13392, Jul. 6, 2015>

The responsibility of the State in information sharing was integrated into the Infectious Disease Control and Prevention Act, which is a direct result of the political crisis surrounding the central control of information from the Korean government during the MERS outbreak. Paragraph 4 also adds the responsibility of the State and local government to share information with medical institutions, which was one of the controversies as well. Under this new law, a future situation similar to the MERS crisis, with a central control of information by the Korean government, is hence made impossible in theory.

Local governments also received more powers regarding infectious disease control. Articles 36 (6), 37 (5) and 39-2, which were all added in July 2015, gave to local governments (ie. mayors, province governors, and head of local administrative divisions) the rights to conduct any

necessary affairs, such as designation, establishment and evaluation of infectious disease control institutions and beginning of medical treatments:

Article 36 (Designation of Infectious Disease Control Institutions)

(6) When an emergency occurs, including the outbreak of an infectious disease, the Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu may instruct infectious disease control institutions to conduct any necessary affairs, such as commencing medical treatment. <Newly Inserted by Act No. 13392, Jul. 6, 2015; Act No. 17067, Mar. 4, 2020>

Article 37 (Establishment of Infectious Disease Control Institutions during Infectious Disease Emergencies)

(5) When an emergency occurs, including the outbreak of an infectious disease, the Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu may order infectious disease control institutions to conduct any necessary affairs, such as the beginning of medical treatment. <Newly Inserted by Act No. 13392, Jul. 6, 2015; Act No. 15534, Mar. 27, 2018>

Article 39-2 (Evaluation of Infectious Disease Control Facilities)

The Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu may conduct evaluations of infectious disease control institutions regularly, and reflect the findings thereof in the supervision, support, etc. of said institutions. In such cases, methods, process, and time-frame of such evaluations, details of the supervision and support, and other related matters, shall be determined by Ordinance of the Ministry of Health and Welfare.

[This Article Newly Inserted by Act No. 13639, Dec. 29, 2015]

Although these articles remain relatively vague regarding the details of these institutions, there is a clear indication that the Korean government moved from a top-down approach towards a more decentralised control system in the field of infectious disease control, which was clearly integrated in the law.

A few policies were also implemented in the same time period by the MOHW to help better transparency and risk communication. Among the 48 tasks to reform national infection

prevention and control system, announced by Chung Chin-young on September 1st, 2015), communication is mentioned as follows:

1. Initial response systems will be built to stop the outbreak of emerging infectious diseases, and to make sure that, if any type of infectious diseases break out, the spread can be prevented at the initial stage.

3) As part of efforts to address lack of risk communication activities, which has been pointed out as the main cause of spread of MERS-CoV, the Department of Risk Communication will be established to make plans for risk communication activities with experts in various disciplines; to determine the scope and way of information sharing with the public beforehand; and to immediately, transparently release relevant information when an emerging infectious disease occurs.

Extract of the Press release of the Ministry of Health and Welfare, September 1st 2015³³.

Through this statement, the Ministry of Health and Welfare officially recognised that lack of transparency was one of the reasons MERS spread in South Korea, and that improving risk communication is a major policy challenge for future outbreaks. As part of the reform program, the MOHW included plans for risk communication.

2) Impact on COVID-19 crisis

The communication from government agencies greatly improved after the MERS crisis. The Ministry of Health and Welfare now has its full website translated in English³⁴, which was not the case before, and was also one of the recommendations from the WHO report. The biggest change was made through the KCDC. Since July 29th, 2015, the KCDC has been publishing regular press releases translated in English updating the evolution of various infectious diseases (prior to this date, the KCDC was not publishing any press release in English)³⁵. At the beginning of COVID-19 outbreak in South Korea, the KCDC was making extensive daily reports (sometimes,

33 Ministry of Health and Welfare, *Measures to Reform National Infection Prevention and Control System for the Purpose of Immediate Response to Emerging Infectious Diseases*, Press release, September 1st 2015.

34 See: <http://www.mohw.go.kr/eng/>

35 See: <https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030>

several per day) on the disease evolution, including for example:

- Number of confirmed and suspected cases (discharged, isolated, deceased / being tested, tested negative)
- Regional distribution of the confirmed cases (per city and Province)
- Incidence rate per region
- Epidemiological links per region (ie. names of hospitals or facilities involved in contamination cases)
- Distribution of the cases by sex and age group
- Additional details on the contamination routes and ongoing epidemiological investigations³⁶.

Actually, transparency and information sharing by local governments was so efficient during the COVID-19 crisis that it created issues regarding privacy of patients. In its daily updates during the early crisis period (January and February 2020), the KCDC provided extensive lists of confirmed COVID-19 cases. Despite censoring the names, these reports sometimes included information such as age, sex, neighbourhood, as well as names of facilities where the infection took place. Since local governments had earned more power after MERS, including the power to publicise information themselves, they were now able to alert their residents of detailed routes and destinations used by confirmed cases. Some cities started releasing “emergency alerts” text messages to inform residents in real time of confirmed cases in their vicinity and facilities where contaminations took place. Hence, patients could easily be identified by their workplace or travel history. Several cases of leaked information happened, with patients witnessing their private life exposed publicly³⁷.

On March 9th, the National Human Rights Commission expressed concerns about the private information of COVID-19 patients being unnecessarily disclosed to the public. As a result, the KCDC set new guidelines on March 10th, advising local government to disclose information on the affected routes and places that carry the risk of virus infection, but to withhold information that could clarify patients' identities such as addresses and workplace (with the exception, nonetheless, of cases when patients are likely to have infected other people at work)³⁸. This case provides an

36 See "Updates of COVID-19 in Republic of Korea", March 2020 Press releases:
<https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030>

37 Nemo Kim, “More scary than coronavirus’: South Korea's health alerts expose private lives”, *The Guardian*, March 6, 2020.

38 “S. Korea sets guidelines limiting release of private info of coronavirus patients”, *Yonhap News Agency*, March 14, 2020.

example of democratic control from civil society which is able to redirect policy changes when they are susceptible to hinder individual rights.

To conclude this part, South Korea provides a great example of how transparency policies are not only important for individuals' rights, but also a major challenge for the emergency response system: a low transparency policy can actively hinder local governments and individuals from taking initiatives. When it comes to infectious disease response, local actions are fundamental to contain an outbreak – the World Health Organisation insisted on that point, and we saw through the MERS example that civil society, local governments and opposition parties all agreed on that topic. In the Korean case of MERS, information control by the government might have been caused by inefficiency of the emergency response system (the government did not have the information they were asked to release, partly because they were understaffed), or technical dysfunction of the administrative system (local agencies could not provide information or take action without reporting to the KCDC first). The Infectious Disease Control and Prevention Act was amended in 2015, as a direct response to criticism that was made towards the Korean government withholding information and lack of cooperation with local agencies. In 2020, the COVID-19 experience shows that successful changes were made towards an efficient information sharing system. Hence, it can be concluded that regarding transparency, the COVID-19 response was a result of prior democratic reform process. Issues regarding human rights emerged, but they were not the result of securitisation instances from the government, but rather questioned the scope of information sharing in situations when transparency can go too far and result in a breach of privacy for individuals.

III. Healthcare delivery and health institutions' reforms

1) Shortcomings of health institutions during the MERS crisis

On its June 2015 risk assessment report, the WHO explained the unique and large spread of MERS outbreak in South Korea by the following reasons:

The assessment of the joint the Republic of Korea/WHO Mission team is as follows:

- This outbreak in the Republic of Korea, which started with the introduction of MERS-CoV infection into the country by a single infected traveller, was amplified by infection in hospitals and movement of cases within and among hospitals.
(...)
- Several factors appear to have contributed to the initial spread of this virus.
 - The appearance of MERS-CoV was unexpected and unfamiliar to most physicians
 - Infection prevention and control measures in hospitals were not optimal
 - Extremely crowded Emergency Rooms and multi-bed rooms contributed significantly to nosocomial infection in some hospitals.
 - The practice of seeking care at a number of medical facilities (“doctor shopping”) may have been a contributing factor
 - The custom of having many friends and family members accompanying or visiting patients may have contributed to secondary spread of infection among contacts.

Extract of the *MERS-CoV summary and risk assessment of current situation in Republic of Korea and China – as of 19 June 2015*, published by the World Health Organisation³⁹.

According to the WHO, the MERS spread in South Korea was exacerbated by the structure of Korean hospitals (crowded bedrooms, lack of infectious disease knowledge and prevention measures), combined with detrimental practices from patients (“doctor shopping” and custom of accompanying patients). In a 2019 article, Chulwoo Park also highlighted that one of the reasons why MERS spread so quickly in South Korea was the state of the healthcare delivery system in 2015. As MERS-CoV contamination required direct contact between humans, most of the cases

³⁹ See appendix.

worldwide happened inside hospitals. Like the WHO reported in 2015, Chulwoo Park explains that almost all MERS cases in Korea were a result of either intra-hospital infection or hospital-to-hospital infection, while “*the infection routes turned out to be from the same ward patients (33.3%), visitors (26.7%), hospital workers (16.1%), patients’ families (9.9%), and caretakers (1.8%)*”.

He also pointed out the problem of Korean hospitals' rooms being very crowded, as health facilities had a structural lack of income and budget, which often led to reducing the number of health professionals and creating rooms with more than 4 beds. This configuration strongly encouraged intra-hospital contamination in 2015. The absence of negative pressure rooms facilitated contamination within health facilities, and a lack of information sharing between hospitals often led to a similar situation to Patient 0, with MERS patients visiting various hospitals and thus unknowingly facilitating the virus spread. Chulwoo Park stressed out the need to strengthen the healthcare system in South Korea in order to enable a better epidemic outbreak response⁴⁰. The WHO also included this point among its recommendations for the Government of South Korea:

Specific Recommendations for the Government of the Republic of Korea

The joint Republic of Korea/WHO Mission team made the following high-level recommendations to the Government of the Republic of Korea:

(...)

11. The Republic of Korea should ensure that it is able to optimally respond to future outbreaks. In particular, it should strengthen the medical facilities needed to deal with serious infectious diseases, including increased numbers of negative-pressure isolation rooms; consider how to reduce the practice of “doctor shopping”; train more infection prevention and control specialists, infectious disease experts, laboratory scientists, epidemiologists, and risk communication experts; and invest in strengthening public health capacities and leadership, including at KCDC.

Extract of the *MERS-CoV summary and risk assessment of current situation in Republic of Korea and China – as of 19 June 2015*, published by the World Health Organisation.

Criticism was also made in 2015 about the lack of health experts in key government

⁴⁰ Chulwoo Park (2019) “MERS-CoV infection in South Korea and strategies for possible future outbreak: narrative review”, *Journal of Global Health Reports*.

institutions such as in the Ministry of Health and Welfare. For example, Lee Jong-kul, MP from the NPAD Party, hold the Health Minister of the time (ie. Moon Hyung-pyo) accountable for the failure in MERS countermeasures, and declared: *“The crisis appears to have worsened partly because the health minister and vice minister are not experts on medical and public health. The government needs to take countermeasures by listening to health experts and organisations before it becomes too late”*⁴¹.

2) Health institutions' reforms after 2015 in South Korea

Within the Minister of Health and Welfare, several structural changes have been made after the MERS crisis.

- **Amendments of the Infectious Disease Control and Prevention Act**

The responsibility of the Ministry of Health and Welfare regarding infectious diseases training and control was made official in the Infectious Disease Control and Prevention Act, article 34 paragraph 3 (newly inserted in July 2015):

Article 34 (Formulation and Implementation of Crisis Control Measures against Infectious Diseases)

(3) The Minister of Health and Welfare shall regularly conduct training, based on crisis control measures against infectious diseases. <Newly Inserted by Act No. 13392, Jul. 6, 2015>

On December 2015, another newly added article further emphasised the role of the State in establishing or supporting the development of health facilities specialised in infectious diseases:

Article 8-2 (Infectious Disease Hospitals)

(1) The State shall establish, or operate by designation, an infectious disease specialty hospital or infectious disease research hospital equipped with adequate facilities, personnel, and research capabilities to pursue research and prevention of infectious diseases, to nurture and train infectious disease specialists, and to diagnose and treat patients of infectious diseases.

41 Chung-un Cho, “Blue House blasted for MERS response”, *The Korea Herald*, June 3, 2015.

(2) To diagnose and treat patients of infectious diseases, the State shall establish, or operate by designation, an infectious disease specialty hospital equipped with at least the number of sickbeds (including negative pressure isolation rooms and isolation beds) prescribed by Ordinance of the Ministry of Health and Welfare, by region.

(3) The State may provide budget support for establishing, or operating by designation, an infectious disease specialty hospital or infectious disease research hospital under paragraph (1) or (2), within budgetary limits.

(4) Procedures necessary for and methods of establishing, or operating by designation, an infectious disease specialty hospital or infectious disease research hospital under paragraph (1) or (2), and details of support therefor shall be prescribed by Presidential Decree.

[This Article Newly Inserted by Act No. 13639, Dec. 29, 2015]⁴²

The article 8-2 is also tackling problems brought up by the WHO report: the need for a sufficient number of sickbeds, negative pressure rooms, but also adequate personnel and research capabilities regarding infectious diseases for hospitals. It also adds that the State must support this development by providing budgets to these hospitals (paragraph 3).

- **Policy reforms from September 1st 2015 onwards**

On the policy level, several structural changes were made in 2015. On September 1st, former Health Minister Moon Hyung-pyo, who led the response to MERS and was held accountable by many political actors for failing to contain the outbreak, was dismissed. President Park Geun-hye appointed Chung Chin-young – a former doctor – as the new Health Minister⁴³, which echoed criticism made by Lee Jong-kul about the lack of health specialists among MOHW officials.

On his appointment day, Chung Chin-young explained the reasons why MERS containment failed: *“Not sharing information with the public [in the early stages of MERS outbreak] and not having an emergency operations centre and therefore not being fully informed of the virus [in advance] were some of the biggest problems the government had during the MERS crisis”*⁴⁴. Chung Chin-young

42 Infectious Disease Control and Prevention Act (2009), Part 36 Health and Medical Affairs.

43 Claire Lee, “Seoul announces post-MERS plan for infectious diseases”, *The Korea Herald*, September 1st, 2015.

44 Claire Lee, “Seoul announces post-MERS plan for infectious diseases”, *The Korea Herald*, September 1st, 2015.

therefore announced the national plan for reforming the Korean infection prevention and control system, for the purpose of immediate response to emerging infectious diseases. A total of 48 main tasks were set up for that purpose, including:

- hiring and training new epidemiologists

“4) For the purpose of hiring and training more specialists and experts, the government will increase the number of epidemiologists, who have been comprised mostly of public health doctors, and convert their level from non-regular workers to regular workers. Further, the government will create a post of "infection prevention and control" official, so that excellent experts can be guaranteed job security, and have various opportunities to build their career (...).

- establishing an Emergency Operations Centre running 24/7, to respond to public health threats in real time

“1) A 24-hour-a-day Emergency Operations Center (EOC) will be established and operated to collect and monitor information on infectious diseases in real time; and to immediately detect, report, and respond to the outbreak of infectious diseases. (...)

2) In case a suspected case occurs, the "Immediate Response Team," led by the Division of Infectious Disease Control under the Korea Center for Disease Control and Prevention (KCDC), will be formed and dispatched along with relevant experts from private sectors without delay.

- requiring hospitals with more than 300 beds to install negative-pressure rooms in order to prevent cross-contamination

“In order to increase the number of negative-pressure isolation rooms, central and local medical institutions with more than 300 beds will be designated by the government for specialised treatments of infectious disease patients. In addition, the number of government-designated isolation facilities will be increased to accommodate up to 117 infected patients, and the availability of a single negative-pressure isolation room will be increased around 144 regional emergency medical centers. Meanwhile, upper-scale general hospitals and all general hospitals with over 300 beds will be required to establish a certain number of negative-pressure isolation rooms.”

- restructuring the KCDC and giving it autonomy over the Minister of Health and Welfare in managing outbreaks.

“Under its restructuring, the KCDC will supervise infection prevention and control, and will be granted greater autonomy and specialty. First, the head of the KCDC will be appointed as the ministry's joint vice minister. Second, the head of the KCDC will have authority in managing human resources and deciding on budgets, including hiring full-time epidemiologists and empowering them to take real action on the scene. Third, the KCDC will take full charge of preventing and controlling diseases at every stage from the initial stage of the outbreak to the final stage, while other government agencies, the Prime Minister's Office, the Ministry of Health and Welfare, and the Ministry of Public Safety and Security, will play a supporting role.”⁴⁵

The last point was particularly important. During the MERS crisis, the KCDC had limited room for manoeuvre, as the decisions were made in a top-down approach from the Ministry of Health and Welfare (which, itself, had a limited expertise on infectious diseases control). With this new policy reform, the KCDC is granted better autonomy, including deciding on its own budget and personnel (previously under the attribution of the Ministry of Health and Welfare). It enabled the KCDC to hire its own epidemiologists and hence offer its own specialised expertise on infectious diseases control. Besides, the decision to appoint the head of the KCDC as the vice minister of Health is particularly important, as it gives the Centres a stronger leverage over the Ministry, and put the field of infectious diseases control at the forefront of Health Ministry responsibilities. During COVID-19 outbreak in 2020, the KCDC was the first decision-maker in managing the pandemic in South Korea, as well as the sought expert for the Korean government.

- **Government subsidies and monetary incentives**

In order to achieve these results, the Korean government subsidised significant amounts of money to help hospitals with infectious disease equipment. We saw previously that the new policy announced on September 1st 2015 required hospitals with more than 300 beds to install negative-

⁴⁵ Ministry of Health and Welfare, *Measures to Reform National Infection Prevention and Control System for the Purpose of Immediate Response to Emerging Infectious Diseases*, Press release, September 1st 2015.

pressure rooms. In 2016, 19 hospitals already had a total amount of 119 negative-pressure isolation rooms, and the government had subsidised 23.4 billion won per room newly built by a hospital. In 2018, there was a total of 163 negative pressure rooms across 29 hospitals⁴⁶.

In September 2016, the national health insurance in Korea also introduced a new policy providing reimbursements for hospitals meeting the new infection control and prevention measures standards. Hospitals could be reimbursed at a per diem rate for every inpatient, with this rate being determined by the number of infection control nurses per bed⁴⁷.

In parallel, there is also a general increase of budget regarding infectious diseases from various government-affiliated institutions between 2015 and 2020. For example, the Korea Health Industry Development Institute (KHIDI, a government-affiliated institution), set aside 12.6 billion won for the prevention and treatment of infectious diseases in the institute's budget for 2019⁴⁸, and 7.2 billion won for a national response to infectious disease outbreaks, as well as 11.9 billion won on improving self-sufficiency in medical supplies and equipment⁴⁹. These measures were led by Kwon Deok-cheol, who led the government's MERS response headquarters in 2015, and was named director of the KHIDI in 2019.

To summarise this part, process tracing shows that MERS indeed had a direct influence on policy reforms regarding health institutions in South Korea between 2015 and 2020. Following the dismissal of Moon Hyung-pyo, several reforms were made in the Infectious Disease Control and Prevention Act, and a large array of structural policies to reform the national response system to infectious diseases were decided by the new Minister of Health Chung Chin-youb. These policies were strengthened by government subsidies and monetary incentives for medical equipment meeting new standards, but also by the general increase in budget regarding infectious diseases.

46 Hyoungha Kim et al., “The Spatial Allocation of Hospitals With Negative Pressure Isolation Rooms in Korea: Are We Prepared for New Outbreaks?”, *International Journal of Health Policy Management* 2020, 9(11), 475–483.

47 <https://www.sciencedirect.com/science/article/pii/S1198743X20305152?via%3Dihub>

48 Eun-ji Bahk, 'Lessons from MERS outbreak help Korea cope with coronavirus', *The Korea Times*, April 12th 2020.

49 Arin Kim, “[Herald Interview] ‘Never too early to start preparing for next epidemic’”, *The Korea Herald*, May 17th 2020.

3) **Impact on COVID-19 crisis**

As a result of structural changes among health institutions and national preparedness, South Korea reacted very quickly to COVID-19 outbreak. The first confirmed case of COVID-19 in South Korea was a Chinese woman, detected on January 20th, 2020. Right away, the KCDC started conducting epidemiologist investigations in order to maintain the spread through targeted quarantine orders. On January 31st, the Korean government sent two chartered flights to evacuate around 700 South Korean nationals from Wuhan, and relocated them to quarantine facilities designated by the government in Asan⁵⁰, in alignment with the article 39-3, newly inserted in the Infectious Disease Control and Prevention Act in 2018, which states that province governors should designate a facility for quarantining contacts of patients of an infectious disease.

Later on, the government issued home quarantine orders to contact cases already residing in South Korea, similarly to what was done during the MERS crisis in 2015. However, one big change which occurred in the meantime was the use of technologies for monitoring home quarantine orders. Previously in 2015, home quarantine orders were monitored by public servants from the patient's regional government (with a system of matching up a patient with a local public servant to monitor the former)⁵¹. In 2020, the Ministry of the Interior and Safety developed a mobile app called “self-quarantine safety protection”. Equipped with a GPS tracking, the app allowed health authorities to check automatically if the individual was breaking self-quarantine order. Due to the surge of cases in February 2020, the Ministry official Jung Chang-hyun explained that human resources would be too limited to pursue the previous system of matching up patients with a public servant, and thus the GPS-based self-quarantine protection app made it easier to monitor the quarantine orders at a large scale⁵².

Even though the Korean response to COVID-19 mostly followed previous health reforms created after the MERS experience, there were still a few instances of the Korean government

50 Daewoung Kim, Hyonhee Shin, “South Korean evacuees from Wuhan welcomed to quarantine centers”, *Reuters*, January 31st, 2020.

51 “S. Korea identifies 24 MERS-affected hospitals”, *Yonhap News Agency*, June 7th, 2015.

52 Max S. Kim, “South Korea is watching quarantined citizens with a smartphone app”, *MIT Technology Review*, March 6, 2020.

taking extraordinary measures and pushing for additional support. In South Korea, a sudden increase of cases occurred in mid-February 2020, after the “Patient 31” became a super-spreader and created a major cluster in the city of Daegu (which is the 4th biggest city in South Korea). “Patient 31” was a member of a cult called Shincheonji (Church of Jesus), and refused to undergo COVID-19 test 3 times, before coming into contact with a thousand other individuals at a religious gathering. As a result, in March 2020, the number of COVID-19 cases exploded, and more than 2 thirds of them were located in the area of Daegu.

Despite Daegu having been well equipped, in particular with negative pressure rooms, the sudden surge of patients was impossible to handle for local hospitals (more than 100 new COVID-19 patients per day), which did not have enough hospital beds and isolation facilities to treat so many people in a short time. In early March, 1,800 coronavirus patients were reportedly quarantined at home due to the shortage of hospital beds, and two ended up dying for that reason. Contact tracing had become meaningless in the region, due to the rapid and large spread⁵³.

Despite Daegu's health capability being similar to other cities, the Korean government adopted targeted containment strategies for this cluster. First, the patients with mild symptoms were moved to “life treatment centres”, special public locals created for that aim, while the hospitals would focus on patients with hard symptoms⁵⁴. Secondly, rather than contact-tracing the current local patient's cases in Daegu, the KCDC decided to track down the members of the Shincheonji cult across the country, in order to prevent a nation-wide spread from the Daegu cluster. In late February 2020, the KCDC announced to have acquired the list of the 210,000 members of the Shincheonji cult⁵⁵, present in 12 branches across the country, and contacted them through a national-local governments coordination strategy. Finally, on March 15, President Moon Jae-in declared the city of Daegu, as well as three other nearby regions in the North Gyeongsang province, as “*special disaster zones*” (first time this designation was used for reasons unrelated to natural disasters). This status allowed the government to spend public money for supporting half of damage recovery expenditures in the disaster zone, but also allows affected people to receive state support (livelihood costs and exemptions from paying utility bills and public health insurance fees)⁵⁶.

53 Anthony Kuhn, “How A South Korean City Is Changing Tactics To Tamp Down Its COVID-19 Surge”, *NPR*, March 10th, 2020.

54 Sung-eun Lee, Jin-ho Park, Soo-yeon Hwang, “Hospital beds sought for infected people from Daegu”, *Korea JoongAng Daily*, March 3rd, 2020.

55 The KCDC had a legal ground for acquiring these information, which is itself up to controversies, as it will be explained in Part IV of the thesis.

56 “Moon declares virus-hit Daegu, part of North Gyeongsang Province as special disaster zones”, *The Korea Herald*, March 15th, 2020.

To conclude this part, a significant number of structural policies were made in South Korea between 2015 and 2020 regarding health institutions, as a result of the MERS crisis. The KCDC was entirely restructured, and obtained more autonomy from the MOHW, as well as leverage power on the latter. As a result, the KCDC widened its scope of action. Improvement in health capabilities and national preparedness made South Korea able to respond very quickly to the early COVID-19 outbreak.

While the example of Daegu cluster shows that the Korean government also resorted to exceptional short-termed measures to contain specific clusters, it cannot be considered as securitisation since the government only provided additional support to some regions, and does not undermine the fact a previous reform process had laid foundations for Korean response to COVID-19. These reforms were backed up by the use of technological innovations (for example, the use of a self quarantine app), and not the other way around.

IV. Private data reforms and controversies related to contact tracing

1) Private data in the case of contact tracing

Ko Haksoo, law professor at Seoul National University, attributed the success in COVID-19 contact tracing to the MERS experience, which helped reform the Infectious Disease Control and Prevention Act on that specific point:

"The 2015 MERS crisis advanced the country's Infectious Diseases Control and Prevention Act. The government amended the law, enabling the health authorities to track the movements of infected people. Combining the country's ICT capability and revised diseases control act, the Korea Centers for Disease Control and Prevention (KCDC) was able to receive data from various agencies as telecom operators provided location information, the police gave CCTV footage, credit card firms offered transaction details, and hospitals provided information of confirmed cases."⁵⁷

The right to collect private data for contact tracing is allowed by article 76-2 of the Infectious Disease Control and Prevention Act (Request for Provision of Information and Verification of Information). This article was newly inserted on July 6th, 2015, in order to facilitate requests for personal information in case of infectious diseases control and contact tracing.

Article 76-2 gives several rights for the MOHW, KCDC and local governments to request private information of suspected and confirmed patients in case of an infectious disease outbreak, including: personal information (address, telephone, etc), medical prescription, immigration control records, etc. Article 76-2 also gives these authorities the right to request information from various institutions to determine movement paths: medical institutions, police, telecommunication services, etc.

It is unclear which actors pushed to reform the Act on that aspect, however it is possible to trace the

⁵⁷ Byung-yeul Baek, "Korea's ICT, AI, biotech shine in virus crisis", *The Korea Times*, July 15, 2020.

reform process. As the 9 paragraphs of this articles were amended several times between 2015 and 2020, including in March 2020, when the COVID-19 outbreak had already started in South Korea, I used two versions of the Infectious Disease Control and Prevention Act: the version which was put into practice in January 2016 (therefore including the original inserted article), and the 2020 version, which includes amendments made between 2016 and March 2020. The comparison between the two versions serves to trace chronologically which measures were already decided in 2015 at the time of the MERS outbreak, and which elements have been changed in March 2020 after the COVID-19 outbreak in South Korea.

The results of this comparison read as follow:

Table 3 – Summary of the Article 76-2 (Request for Provision of Information and Verification of Information) of the Infectious Disease Control and Prevention Act and its amendments⁵⁸

| Paragraph | Content | Changes between 2015 and 2020 |
|-----------|--|---|
| 1 | KCDC and MOHW can request private information of confirmed and suspected cases of an infectious disease to public institutions, medical institutions, local governments (etc). Including: 1. Personal information such as names, address, telephone number, etc 2. Prescriptions and medical records 3. Records of immigration control 4. Others if stated by Presidential decree | Similar* |
| 2 | MOHW, Mayor/Do Governor, head of Si/Gun/Gu can request the police to provide location information of confirmed or suspected cases. The police, upon request of the authorities above, can request any personal location provider (ie. telecommunications business operator) to provide patients' location and they should comply. | Original only mentioned MOHW; was extended to local governments Original only mentioned the police; the second part about personal location providers was added by amendment |
| 3 | MOHW can provide the information obtained through paragraphs 1 & 2 to local governments and medical institutions if needed for infectious disease control | Similar* |
| 4 | MOHW shall provide information described in paragraph 1 | Paragraph newly |

⁵⁸ See appendix for the full article.

| | | |
|---|---|---|
| | (subparagraphs 3-4) to any health or medical institutions using the information systems of National Health Insurance Service or Health Insurance Review and Assessment Service | inserted on March 4 th , 2020 |
| 5 | When providing medical treatment or prescriptions, medical personnel shall check information provided by paragraph 4 using the information system | Paragraph newly inserted on March 4 th , 2020 |
| 6 | People provided with information pursuant to paragraphs 3 & 4 shall not use it for any other purpose , shall destroy it afterwards and inform the MOHW. | Similar* |
| 7 | MOHW, Mayor/Do Governors, heads of Si/Gun/Gu, shall notify the individual concerned by paragraph 1 & 2 that: 1. his/her private information was collected 2. if the information was provided to other agencies, which one(s) 3. the information shall not be used for other purposes and will be destroyed after completion | Original only mentioned MOHW; was extended to local government officials by amendment on March 4 th , 2020 |
| 8 | If a person provided with private information described in paragraphs 3 & 4 violates the Act, the Personal Information Protection Act should apply | Similar* |
| 9 | Matters necessary for the target and scope of information provided under paragraph 3 and methods of notification under paragraph 7 should be prescribed by MOHW ordinance | Similar* |

* **Similar = minor differences such as change of institution's denomination or change of paragraph's number**

According to the article, for tracing contact cases during an outbreak, the KCDC is able to request private information from public and medical institutions (1), but also from the police and any personal location provider (ie. business telecommunications operators) (2). Information linked to contact tracing can be provided to local (3), health or medical institutions (4), but should be destroyed after being used (6). The individual should be notified of how his/her information is being used (7). In case of violation, the Personal Information Protection Act should apply (8). The type of private information requested by the MOHW and KCDC can only be extended by Presidential decree (1). By ordinance, the MOHW can prescribe how private information is shared to local and health institutions, and how the individual is notified of his/her private information being used (9).

Only the paragraphs 4 and 5 were newly inserted after the beginning of the COVID-19 crisis. The other paragraphs are similar, to the exception that the right to request private information was

extended from MOHW to local governments. This is based on the same decentralisation process, described in part II, which consists in transferring powers relative to infectious disease control from the government to local agencies. As part of this decentralisation process, local governments are thus able to request private information themselves in order to execute contact tracing on their own, instead of having to go through the MOHW intermediate, which was criticised by officials as one of the reasons of MERS response failure.

The most significant and controversial amendment of this article is the right for the MOHW and local government to request personal location providers (such as telecommunication business operators) to hand over information relative to location of infectious disease patients, without the need of court approval (paragraph 2). This specific point was new to the original article; it was added in 2020, and widely used for contact tracing during the COVID-19 crisis.

During the early COVID-19 outbreak in February, the contact tracing process worked as follows: first, KCDC agents identified people who came within a 2-m distance of a confirmed patient, starting from a day before the individual began displaying symptoms. Then, these people are narrowed down depending on whether the confirmed patient was wearing a mask, or was in an enclosed area, etc. The narrower group are then mandated to quarantine for 14 days. For that purpose, the KCDC first used mobile phone records and CCTV footage⁵⁹.

On January 24th, 2020, a cooperation between the KCDC and the Credit Finance Association (CFA) started, aiming at also using card payment information to track travels of confirmed patients. Each Korean card company operated a emergency hotline to the KCDC, and the CFA itself provided additional support⁶⁰. Since transportation use was also included in card payment information, it could be used to trace confirmed patients' travel history and then identify contact cases. As this information falls under the Article 76-2 of the Infectious Disease Control and Prevention Act, they are also subject to being destroyed afterwards (paragraph 6), and under the Personal Information Protection Act if people provided with this information violate the law.

59 “Credit Card Use Helps Stem Coronavirus”, *Chosun Ilbo*, March 3, 2020.

60 Anna J. Park, “Card firms help prevent coronavirus spread”, *The Korea Times*, February 4, 2020.

2) Controversies related to breach of privacy related to contact tracing during the COVID-19 crisis

Private data collection for contact tracing did not go without controversies. In early May 2020, a cluster emerged in the neighbourhood of Itaewon in Seoul, linked to a 29-year-old man who visited several nightclubs with at least 1,500 other people there. However, a problem of privacy emerged as one of these nightclubs was identified by media outlets as a gay bar.

Under official social distancing measures at that time, visitors of such facilities had to provide their personal details including names and phone numbers on handwritten forms. However, many names and phone numbers were inaccurate, and the KCDC ended up struggling to trace contacts in this densely populated area. Controversies emerged about the lack of full anonymity and thus possibility of suspected or confirmed patients being outed as homosexuals or being the target of discrimination⁶¹. Initial reports from the KCDC included personal information about the first case of this cluster (the 29-year-old man), such as age, gender, location and movements, which could help to identify him, and thus deterring other potential patients to come forward. On May 12th, health authorities called people who visited these nightclubs between late April and early May to come forward for voluntary testing and report to the health authorities as they were still struggling to trace contact cases⁶². Several celebrities were also publicly reveal in media outlets to have visited the Itaewon area in late April⁶³.

On top of CCTV and credit card records, the KCDC also requested telecoms companies to collect cell phone signals in the Itaewon area between April 24th to May 6th in order to identify potential cases. In August 2020, several civic groups petitioned the Constitutional Court to declare the massive collection of private data for contact tracing of the Itaewon cluster unconstitutional. Civic groups claimed that private data of 10,905 people were collected in the process, in an extensive and inappropriate manner, and thus constituted a violation of human rights guaranteed by the Constitution⁶⁴.

61 Chan-kyong Park, "Coronavirus: South Korea reports new infection cluster linked to nightclubs", *South China Morning Post*, May 8, 2020.

62 "Itaewon club goers urged to report to health authorities", *The Korea Times*, May 14, 2020.

63 "4 K-pop stars, including BTS' Jungkook, test negative after visiting Itaewon last month", *Yonhap News Agency*, May 18, 2020.

64 Jae-yeon Woo, "Constitutional petition filed against collecting mobile phone data in handling Itaewon cluster", *Yonhap News Agency*, July 31, 2020.

As a result of the Itaewon controversy, in June 2020, the Korean government started implementing QR code-based entry log system in densely populated facilities such as nightclubs, eateries, cinema, churches, etc⁶⁵. This digital entry log was stored in the Social Security Intelligence Service (SSiS), which is a government body handling social and health information. Private information is reduced to the minimum, encrypted, and stored for 4 weeks. If a mass infection occurs in one of these facilities, the KCDC can request the SSiS to provide the records for contact tracing⁶⁶.

This example shows that while the previous health reforms enabled data collection in the case of contact tracing, during the COVID-19 crisis, there was an instance of securitisation as the government largely extended and abused the scope of private data they were originally able to collect. The Itaewon case was so extreme that several civic groups petitioned the Constitutional Court to declare private data collection in the case of Itaewon cluster unlawful. This specific case also raised social questions: besides the general problem of anonymity during contact tracing, there is also a challenge of protecting minorities susceptible to being identified and discriminated (here, the LGBT community). This case shows an instance of securitisation, but also an example of democratic control and how civil society can influence to redirect a certain policy (after the Itaewon case, the Korean government invested on a QR code entry log system which could enable better privacy and more autonomy from the individuals).

65 "S. Korea tests QR registration at nightclubs, eateries to contain virus", *Yonhap News Agency*, June 1, 2020.

66 Byung-yeul Baek, "Korea's ICT, AI, biotech shine in virus crisis", *The Korea Times*, July 15, 2020.

Conclusion

In this thesis, I have tried to demonstrate that the COVID-19 response in South Korea was the result of previous health reforms created from the experience of MERS in 2015. For that purpose, I first analysed the statements from political actors about the MERS crisis, and then analysed amendments from the Infectious Disease Control and Prevention Act between 2015 and 2020, as well as policy documents from the Ministry of Health and Welfare. Finally, I analysed the application of these reforms during the COVID-19 outbreak and tried to identify if there were instances of securitisation from the Korean government in 2020.

My thesis focused on three themes among infectious disease control policies: transparency, health institutions, and private information collection.

For transparency, it is very clear that the reforms which happened between 2015 and 2020 were a direct result of the political crisis that emerged in South Korea during the MERS outbreak. Communication and lack of transparency were recognised by the government as one of the causes of the MERS outbreak. The Korean case actually shows us that information sharing is a wider problem than a simple matter of ethics:

1/ First, it is the responsibility of the State to inform citizens and other institutions about the evolution of an outbreak. This obligation was integrated into the Infectious Disease Control and Prevention Act in 2015 (Article 4).

2/ From the problem of information sharing also comes the issue of decentralisation. This point is more surprising, but the Korean case demonstrates that the two matters are intertwined. One of the main criticisms of the MERS response in South Korea was the absence of information sharing to local governments and agencies, which hindered them from taking preventive and control measures. In 2015, the transfer of powers from the MOHW to local governments was integrated in the Infectious Disease Control and Prevention Act.

For health institutions, the study of the Infectious Disease Control and Prevention Act amendments, as well as MOHW policy documents, shows that very significant structural changes were made among health institutions. The scope of action from the KCDC was largely widened as a result of the MERS experience, which highlighted an original lack of personnel, tools, funds and

expertise to tackle large outbreaks. The KCDC was entirely restructured, and obtained more autonomy from the MOHW, as well as leverage power on the latter.

For these two themes, the COVID-19 response largely followed previous reforms, and we cannot classify certain instances of the Korean government pushing exceptional measures or redirect the scope of action as securitisation. However, when it comes to the topic of private data collection, the findings are more ambiguous. In 2015, the insertion of the Article 76-2 in the Infectious Disease Control and Prevention Act allowed the MOHW, the KCDC and local governments to request and collect a certain amount of private information for contact tracing. However, the government and the KCDC largely abused the original definitions and extended their request for information to entities that were not included in the original article in 2015, such as telecommunications information, card payment information, and even cell phone signals in the case of the Itaewon cluster. This case became very controversial, as the information collected and lack of anonymity created a breach of privacy related to sexual minorities rights and potential issues of discrimination. This case can be considered as an instance of securitisation from the Korean government. Civic groups asked to rule the data collection in the case of the Itaewon cluster unconstitutional. Afterwards, the KCDC redirected its contact tracing strategy and started to invest in an encrypted QR code-based entry log system instead of relying mainly on telecommunications.

To conclude, for most part, the South Korean response to COVID-19 was a direct result of a previous long-term and democratic health reform process. While there were a few instances of extraordinary measures and securitisation (especially in the context of contact tracing), the core of COVID-19 crisis management was actually an application of previous health reforms and structural changes in its emergency response system. Besides, the specific reforms concerning decentralisation of infectious disease control institutions, especially, show that South Korean response to COVID-19 was not a Statist top-down approach, but rather a decentralised and long-term process, which would actually connect it to a globalist perspective.

Finally, the South Korean case is unique as it also shows instances of democratic control when securitisation measures or other policies were believed to create breaches of privacy. First, as it was explained in the second part, issues regarding privacy emerged due to unnecessary private information about patients being disclosed to the public as part of the transparency policy. The National Human Rights Commission redirected the KCDC, which issued new guidelines to limit the amount of private information disclosed in official reports. Secondly, civic groups petitioned the

Constitutional court to declare the massive collection of private data for contact tracing of the Itaewon cluster unconstitutional. These cases show that democratic control is a major element for redirecting policies in a time of crisis when they are considered to be potentially detrimental for the individuals, and necessary for constructing long term human-centred health reforms.

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Appendix

Appendix 1 – MERS-CoV summary and risk assessment of current situation in Republic of Korea and China – as of 19 June 2015.

The assessment of the joint the Republic of Korea/WHO Mission team is as follows:

- This outbreak in the Republic of Korea, which started with the introduction of MERS-CoV infection into the country by a single infected traveller, was amplified by infection in hospitals and movement of cases within and among hospitals.
- A combination of older and new cases continue to be reported, but, as shown in the epidemic curve (Figure 2a), the number of new cases (vs. cases that are linked to large hospital clusters, e.g., Hospital B and D) occurring each day appears to be declining. This decline has coincided with much stronger contact tracing, monitoring and quarantine, suggesting that disease control measures are working. These measures are greatly facilitated by expanded laboratory testing. However, several weeks will be required to confirm the impact of the measures and whether the outbreak is fully controlled.
- Several factors appear to have contributed to the initial spread of this virus.
 - The appearance of MERS-CoV was unexpected and unfamiliar to most physicians
 - Infection prevention and control measures in hospitals were not optimal
 - Extremely crowded Emergency Rooms and multi-bed rooms contributed significantly to nosocomial infection in some hospitals.
 - The practice of seeking care at a number of medical facilities (“doctor shopping”) may have been a contributing factor
 - The custom of having many friends and family members accompanying or visiting patients may have contributed to secondary spread of infection among contacts.
- The rapid increase in numbers of cases has led to much speculation as to whether there may be new contributing factors to transmission. It is too early to draw definitive conclusions at this time, but certain observations can be made:
- There is no strong evidence at present to suggest that the virus has changed to make the virus more transmissible.
- Thus far, the epidemiological pattern of this outbreak appears similar to hospital-associated MERS-CoV outbreaks that have occurred in the Middle East. However, this Mission has not been able to determine whether environmental contamination, inadequate ventilation, or other factors have had a role in transmission of the virus in this outbreak. There is a compelling need for further investigation.
- While there is no evidence at present of ongoing community transmission of MERS-CoV in the Republic of Korea, continued monitoring for this possibility is critical. Because the outbreak has been large and complex and more cases can be anticipated, the Government

should remain vigilant and continue intensified disease control, surveillance, and prevention measures until the outbreak is clearly over.

Specific Recommendations for the Government of the Republic of Korea

The joint Republic of Korea/WHO Mission team made the following high-level recommendations to the Government of the Republic of Korea:

1. Infection prevention and control measures should immediately be strengthened in all healthcare facilities across the country.
2. All patients presenting with fever or respiratory symptoms should be asked about: contact with a MERS patient; visits to a healthcare facility where a MERS patient has been treated; and history of travel to the Middle East in the 14 days before symptom onset. Any patient with positive responses should be promptly reported to public health authorities and managed as a suspected case while the diagnosis is being confirmed.
3. Close contacts of MERS cases should not travel during the period when they are being monitored for the development of symptoms.
4. Strong consideration should be given to re-opening schools, as schools have not been linked to transmission of MERS-CoV in the Republic of Korea or elsewhere.
5. The most important steps needed to stop further cases involve continued implementation of basic public health measures by all health authorities. These include:
 - a. early and complete identification and investigation of all contacts
 - b. robust quarantine/isolation and monitoring of all contacts and suspected cases
 - c. full implementation of infection prevention and control measures; and
 - d. prevention of travel, especially internationally, of infected persons and contacts
6. Local governments must be fully engaged and mobilized in the national fight against this outbreak.
7. In parallel with disease prevention and control measures, steps should be taken to strengthen domestic and international confidence and trust. The most important actions involve improving risk communications. The Ministry of Health and Welfare should provide regularly updated information (in Korean and English) on the epidemiological situation, investigations, and disease control measures.
8. Additional staff (for “surge capacity”) are urgently required for the response and to provide relief for staff already working on the outbreak.
9. Selected hospitals should be designated for safe triage and assessment of suspected MERS cases. This will require trained personnel, facility management, and communication with the public.
10. Comprehensive research studies designed to close critical gaps in knowledge, including sero-epidemiological studies, should be completed and the results widely communicated as quickly as possible
11. The Republic of Korea should ensure that it is able to optimally respond to future outbreaks. In particular, it should strengthen the medical facilities needed to deal with serious infectious diseases, including increased numbers of negative-pressure isolation rooms; consider how to reduce the practice of “doctor shopping”; train more infection prevention and control specialists, infectious disease experts, laboratory scientists, epidemiologists, and risk communication experts; and invest in strengthening public health capacities and leadership, including at KCDC.

Appendix 2 – Article 76-2 of the Infectious Disease Control and Prevention Act, as of March 2020

Article 76-2 (Request for Provision of Information and Verification of Information)

(1) If necessary to prevent infectious diseases and block the spread of infection, the Minister of Health and Welfare or the Director of the Korea Centers for Disease Control and Prevention may request the heads of relevant central administrative agencies (including affiliated agencies and responsible administrative agencies thereof), the heads of local governments (including the superintendents of education prescribed in Article 18 of the Local Education Autonomy Act), public institutions designated under Article 4 of the Act on the Management of Public Institutions, medical institutions, pharmacies, corporations, organizations, and individuals to provide the following information concerning patients of infectious diseases, etc. and persons suspected of contracting infectious diseases, and persons in receipt of such request shall comply therewith: <Amended by Act No. 14286, Dec. 2, 2016; Act No. 17067, Mar. 4, 2020>

1. Personal information, such as names, resident registration numbers prescribed in Article 7-2 (1) of the Resident Registration Act, addresses, and telephone numbers (including cell phone numbers);
2. Prescriptions prescribed in Article 17 of the Medical Service Act and medical records, etc. prescribed in Article 22 of the same Act;
3. Records of immigration control during the period determined by the Minister of Health and Welfare;
4. Other information prescribed by Presidential Decree for monitoring the movement paths of such patients, etc.

(2) If necessary to prevent infectious diseases and block the spread of infection, the Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu may request the Commissioner General of the Korean National Police Agency, the commissioner of a district police agency, or the chief of a police station referred to in Article 2 of the Police Act (hereafter in this Article referred to as “police agency”) to provide location information of patients of an infectious disease, etc. and persons suspected of contracting an infectious disease. In such cases, notwithstanding Article 15 of the Act on the Protection and Use of Location Information and Article 3 of the Protection of Communications Secrets Act, the head of the relevant police agency, upon request by the Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu, may request any personal location information provider defined in Article 5 (7) of the Act on the Protection and Use of Location Information and any telecommunications business operator defined in subparagraph 8 of Article 2 of the Telecommunications Business Act to provide location information of patients of an infectious disease, etc. and persons suspected of contracting an infectious disease; and the personal location information provider and the telecommunications business operator in receipt of such request shall comply therewith unless there is good cause. <Amended by Act No. 13639, Dec. 29, 2015; Act No. 15608, Apr. 17, 2018; Act No. 17067, Mar. 4, 2020>

(3) The Minister of Health and Welfare may provide information collected pursuant to paragraphs (1) and (2) to the heads of the relevant central administrative agencies, the heads of local governments, the President of the National Health Insurance Service, the President of the Health Insurance Review and Assessment Service, health and medical services institutions defined in subparagraph 4 of Article 3 of the Framework Act on Health and Medical Services (hereinafter

referred to as “health and medical services institutions”), other organizations, etc. In such cases, information provided to health and medical services institutions, etc. shall be limited to information related to the affairs of the relevant institutions, etc. for preventing infectious diseases and blocking the spread of infection. <Amended by Act No. 17067, Mar. 4, 2020>

(4) Notwithstanding the former part of paragraph (3), if necessary to prevent infectious diseases and block the spread of infection, the Minister of Health and Welfare shall provide information prescribed in paragraph (1) 3 and information on movement paths prescribed in subparagraph 4 of the same paragraph to health and medical services institutions using any of the following information and communications systems. In such cases, information provided to health and medical services institutions shall be limited to information related to the affairs of the relevant institutions: <Newly Inserted by Act No. 17067, Mar. 4, 2020>

1. The information system of the National Health Insurance Service;
2. The information system of the Health Insurance Review and Assessment Service;
3. The information system of an institution deemed necessary and designated by the Minister of Health and Welfare to prevent any infectious disease from being transmitted into or spreading in the Republic of Korea.

(5) When providing medical treatment or prescribing or preparing medicines, medical personnel, pharmacists, and the heads of health and medical services institutions shall check information provided pursuant to paragraph (4) using an information system prescribed in any subparagraph of the same paragraph. <Newly Inserted by Act No. 17067, Mar. 4, 2020>

(6) No person provided with information pursuant to paragraphs (3) and (4) shall use such information for any purpose, other than conducting affairs related to infectious diseases under this Act, and shall, without delay, destroy all information after completing the relevant affairs and inform the Minister of Health and Welfare thereof. <Amended by Act No. 17067, Mar. 4, 2020>

(7) The Minister of Health and Welfare, a Mayor/Do Governor, or the head of a Si/Gun/Gu shall notify the subject of information collected pursuant to paragraphs (1) and (2), of the following: <Amended by Act No. 17067, Mar. 4, 2020>

1. The fact that information necessary for preventing infectious diseases and blocking the spread of infection has been collected;
2. Where information prescribed in subparagraph 1 has been provided to another agency, such fact;
3. The fact that, even in cases prescribed in subparagraph 2, no information shall be used for any purpose, other than conducting affairs related to infectious diseases under this Act, and all the information shall be destroyed without delay when the relevant affairs are completed.

(8) Where a person provided with information pursuant to paragraphs (3) and (4) processes the relevant information in violation of this Act, such person shall be governed by the Personal Information Protection Act. <Amended by Act No. 17067, Mar. 4, 2020>

(9) Matters necessary for the target and scope of information provided under paragraph (3), the methods of notification under paragraph (7), and other relevant matters shall be prescribed by Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 17067, Mar. 4, 2020>

[This Article Newly Inserted by Act No. 13392, Jul. 6, 2015]

Appendix 3 – Article 76-2 of the Infectious Disease Control and Prevention Act, as of January 6th, 2016

(1) If necessary to prevent infectious diseases and block the transmission of infection, the Minister of Health and Welfare or the Director of the Korea Centers for Disease Control and Prevention may request the heads of relevant central administrative agencies (including their affiliated agencies and responsible administrative agencies), the heads of local governments (including superintendents of education as prescribed in Article 18 of the Local Education Autonomy Act), public institutions as prescribed in the Act on the Management of Public Institutions, medical institutions, pharmacies, corporations, organizations, and individuals to provide the following information concerning patients, etc. of infectious diseases and persons feared to be infected by infectious diseases, and persons in receipt of such request shall comply therewith:

1. Personal information, such as names, resident registration numbers as prescribed in Article 7 (3) of the Resident Registration Act, addresses, and telephone numbers (including cell phone numbers);
2. Prescriptions as prescribed in Article 17 of the Medical Service Act, records of medical treatment as prescribed in Article 22 of the same Act, etc.;
3. Records of immigration control during the period determined by the Minister of Health and Welfare;
4. Other information prescribed by Presidential Decree for monitoring the movement paths of patients of infectious diseases.

(2) Notwithstanding Article 15 of the Act on the Protection, Use, etc. of Location Information and Article 3 of the Protection of Communications Secrets Act, if necessary to prevent infectious diseases and block the transmission of infection, the Minister of Health and Welfare may request the heads of the National Police Agency, regional police agencies, and police stations established under Article 2 of the Police Act to provide location information concerning patients, etc. of infectious diseases and persons feared to be infected by infectious diseases.

(3) The Minister of Health and Welfare may provide information collected pursuant to paragraphs (1) and (2) to the heads of the relevant central administrative agencies, the heads of local governments, the chairperson of the National Health Insurance Corporation, the president of the Health Insurance Review and Assessment Service, and such medical personnel, medical institutions, and other organizations as are performing tasks related to infectious diseases. In such cases, information provided shall be limited to information related to the tasks of the relevant agencies, etc., for preventing infectious diseases and blocking the transmission of infection.

(4) No person provided with information pursuant to paragraph (3) shall use such information for any purpose, other than the purpose of conducting affairs related to infectious diseases under this Act, and shall, without delay, destroy all information when the relevant tasks are completed and inform the Minister of Health and Welfare of such fact.

(5) The Minister of Health and Welfare shall notify the relevant party as the principal owning information collected pursuant to paragraphs (1) and (2), of the following matters:

1. The fact that information necessary for preventing infectious diseases and blocking the transmission of infection has been collected;
2. Where information as prescribed in subparagraph 1 has been provided to another agency, such fact;
3. The fact that, even in cases as prescribed in paragraph (2), no information shall be used for

any purpose, other than the purpose of tasks related to infectious diseases, and all the information shall be destroyed without delay when the relevant tasks are completed.

(6) Where persons provided with information pursuant to paragraph (3) process the relevant information, in violation of this Act, the Personal Information Protection Act shall apply.

(7) Necessary matters concerning the target and scope of information provided under paragraph (3) and methods for notification under paragraph (5), shall be prescribed by Ordinance of the Ministry of Health and Welfare.

[This Article Newly Inserted by Act No. 13392, Jul. 6, 2015]