

Health Care System of South Korea and Covid-19

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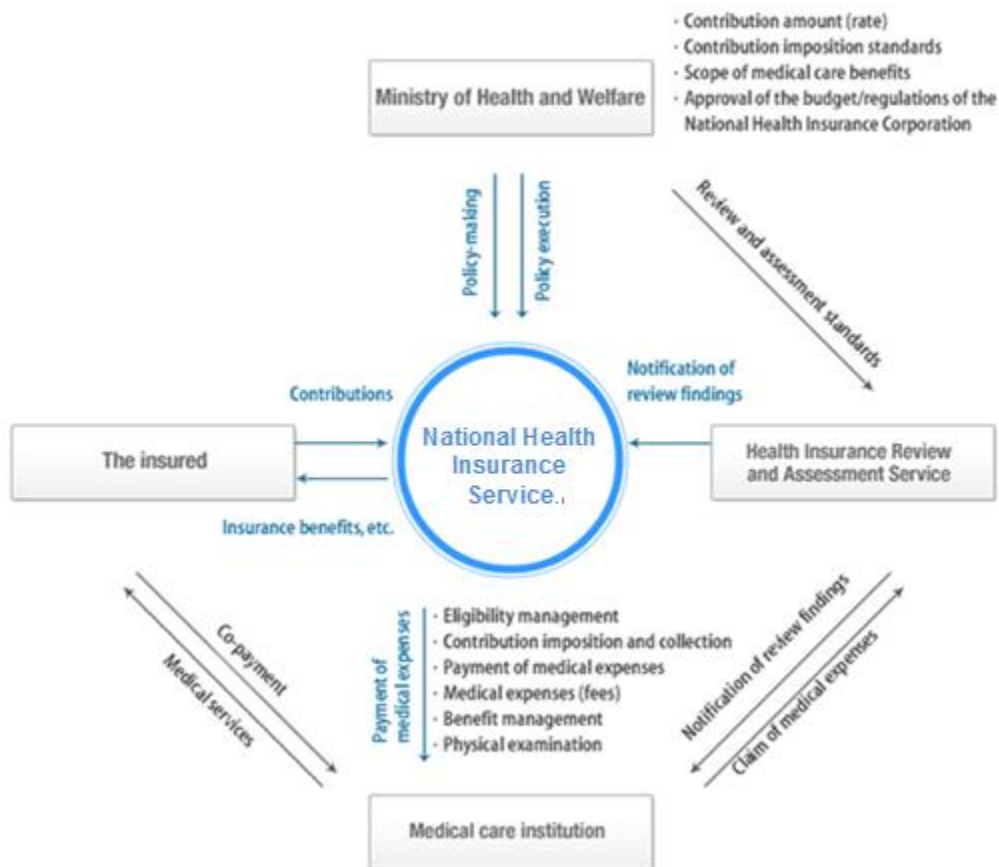
Healthcare Economics

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An Outline Of South Korean Health Care System

Figure 1: South Korean Model Health Care System



Source: South Korea – Medical Devices & Diagnostics by Jung-Sook Kim (2014)

1. Insurer and sponsor

South Korea provides universal health care to all its citizens through the National Health Insurance (NHI) and the Medical Aid program. The two programs are implemented by the Ministry of Health and Welfare (MoHW). Data from the MoHW as of 2014 indicated that 97.5% of South Koreans who can afford paying premiums have their medical cost covered by NHI system. On the other hand, the remaining 2.5% of the population, low income individuals who cannot afford paying insurance premiums, have their medical costs covered by a Medical Aid Program (Kim, 2014).

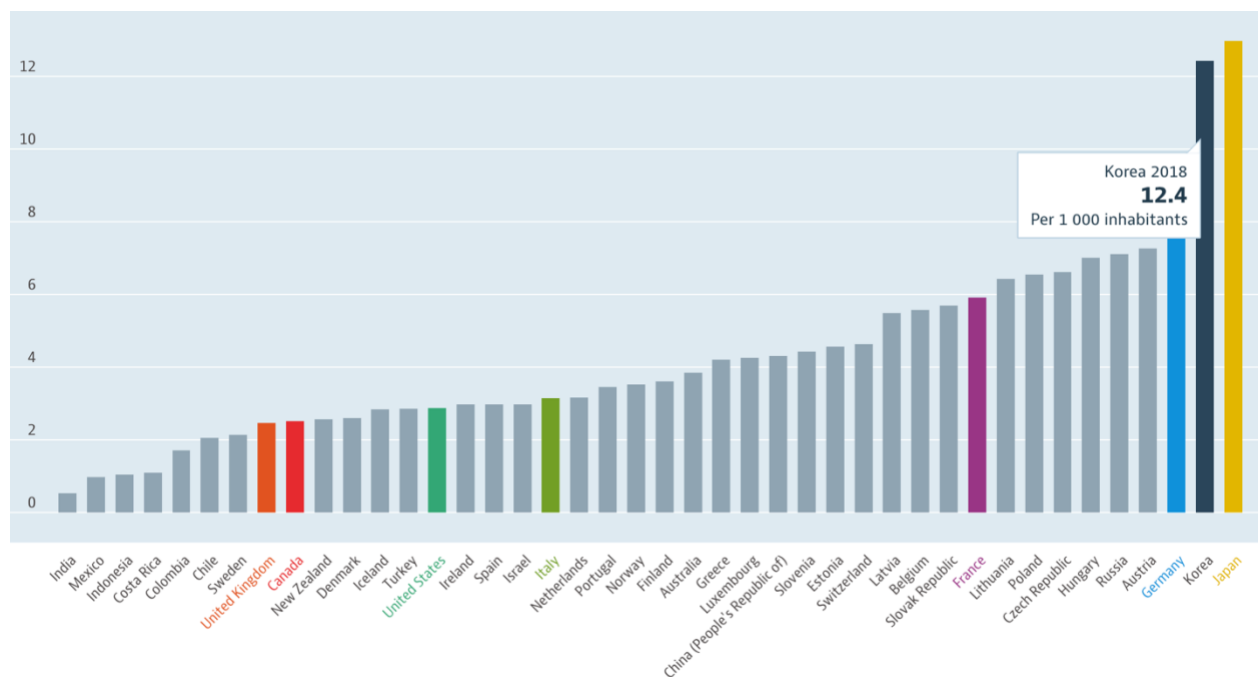
2. Background of the consumers

South Korea had a population of 51.2 million people as of 2019, with 100.5 males for every 100 females (The World Bank, 2019). Approximately 72.20% of the population comprises people between age 15 and 64 years, and the aging population (above 64 years) accounts for about 15% of the population. However, the aging population has been rising due to increased life expectancy to 83.06 years, a 0.18% increase from 2019 (Worldometers, 2020). With 96% of the ethnic groups living in South Korea having Korean descent, the country is one of the world's most homogeneous populations (The World Bank, 2019). However, its increasing economic powerhouse attracts foreign immigrants from all over the world. Many immigrants to South Korea are from China, Vietnam, United States, Thailand, and the Philippines. As of 2019, the country's GDP was about \$31,762 billion, with 8.1% of this GDP accounting for healthcare expenditure (Im Sol, 2019). The infant mortality rate in the country has reduced by 3.03% in 2020 from 2018. Mortality in South Korea is mainly caused by cancer, cardiovascular diseases, diabetes, suicides, and accidents.

3. Production

The South Korean NHI system consists of both private and public medical care institutions. The majority of South Korean medical professionals are in private practice, and most medical institutions are privately owned. Goldrick, S. (2020) notes that Koreans under the NHI system are free to choose their hospitals and doctors. Patients covered under NHI can access services such as comprehensive dental services, inpatient and outpatient services, and traditional medicine treatment (Kim, 2014).

Figure 2: Health equipment - Hospital beds - OECD Data. (2019)



South Korea has a very high hospital bed capacity and medical equipment availability compared to other developed nations but suffers from a significantly low doctor to patient ratio. Data from the MoHW in 2018 indicated that the country had 12.4 hospital beds per 1000 people (OECD 2020), as the figure show above second in the world compared to other developed nations such as U.S. which has 2.8 beds for every 1000 patients (Asianews, 2018). Further,

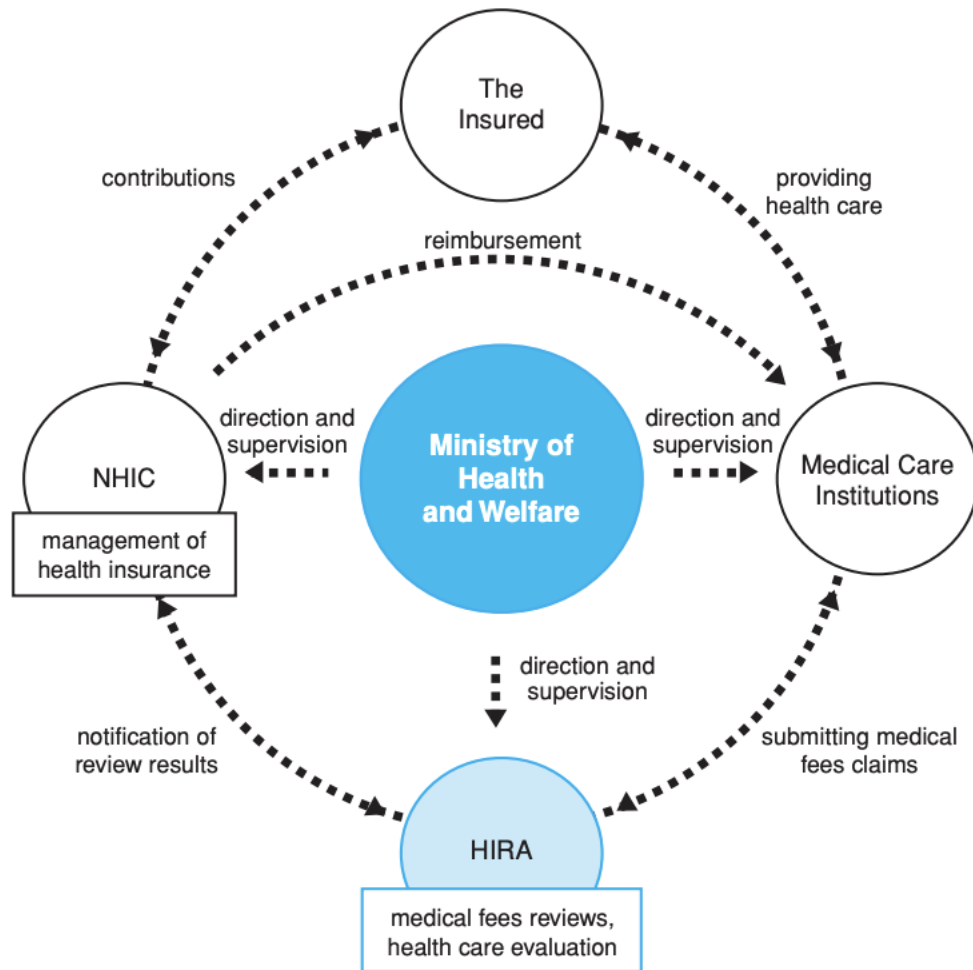
medical institutions in South Korea owned more medical equipment such as CT and MRI scanners, ICU ventilators, etc. than other Asian nations apart from Japan. Despite a high hospital bed capacity and well-equipped medical facilities, South Korea lacks an adequate healthcare workforce.

4. How financing work (premiums and/or taxes)

NHI system in South Korea is funded primarily by premiums paid by the insured and employers on behalf of their employees (Kim, 2014). Currently, the average monthly payroll deduction paid as NHI premiums in South Korea is 5.06%, which is split between employers and employees Goldrick, S. (2020). On the other hand, self-employed people pay their premiums as taxes considering their earnings or assets. On the other hand, people with low income do not need to pay any monthly premiums and, in return, access universal healthcare through a Medical Aid Program. Any payments made by individual payments from their pockets is capped at the lowest to ensure that everybody affords healthcare services. Jeong (2011) notes that the healthcare system in South Korea is a single-payer system where the payer is the NHI, which pays for all privately provided healthcare for all under the program.

5. How does reimbursement work

Figure 3



(Source: Health Insurance Review & Assessment Service)

Physicians and medical institutions are the primary reimbursement payment system for is Fee-For-Service (FFS) basis. Kwon, S. (2003) noted that since NHI's introduction in South Korea, medical institutions are paid on a fee-for-service basis. Currently, the hospitals provide health services to patients under the NHI program are compensated based on the diagnosis-related groups (DRG) for every patient, a fixed rate for each hospital stay. For this reason, if a hospital treats a patient spending less than the DRG payment, then it makes a profit. On the other

hand, if the hospital spends more than the DRG when treating a patient, it loses. The DRG-based payment system has become very effective in containing medical institutions' costs while maximizing quality service delivery (Mathauer, I., Xu, K., Carrin, G., & Evans, D. 2009).

How the South Korean Government Intervenes in Health Care System

In South Korea, most hospitals and medical care facilities are privately owned, i.e., 94% of the hospitals, which represent 88% of all hospital beds in the country. Out of 43 tertiary hospitals, only 13 are run by public universities, while privately-owned private universities run 30. According to Lee (2003), the South Korean government has had little attention in investing in public health facilities beyond the community-based health facilities, "Bogeuunso." Other government medical facilities include the provincial medical centers constructed by Japanese colonizers and the National Medical Center built during the Korean War by a contingent of the American Army. Therefore, most Korean hospitals are profit-making institutions that have contributed to the rising cost of medical care.

Nonetheless, the South Korean government intervenes in the health economy to internalize any negative externality that compromises its citizens' healthcare through enforcing policies. One negative health externality in South Korea is smoking, which places a significant health burden on the economy. Although the South Korean government has rarely intervened in tobacco control in the past, it has enacted regulations such as an increase in the price of cigarettes, public smoking bans, increased taxation on tobacco products, and limitations of advertisements (Gunter et al., 2020). The surcharges on tobacco contribute to 6% of the NHI's total funding (Song, 2009). Further, to reduce industrial pollution and foster environmental sustainability, the government of South Korea has an array of measures ranging from promoting clean technology with renewable sources of energy to environmental taxes. By introducing the

NHI to cover healthcare expenditures for all South Koreans, the government has addressed equity and efficiency issues in the healthcare sector.

The Government of South Korea plays a massive role in the health insurance and coverage of health costs for its people. Funding of NHI is one of the main ways that the government supports the country's health insurance sector. According to Song (2009), the national government provides for 14% of the NHI program's total budget. Further, the government covers the healthcare costs of the low-income earners who are not covered by the NHI program. Under the Medical Aid Program, about 3.7% of the total population has access to medical care, and the government pays all medical expenses (Song, 2009). Moreover, through this program, the government can provide care to children below 18 years as well as patients with rare and chronic diseases. Medical Aid Program is financed by both the local and national governments in South Korea. The local government selects the beneficiaries of the program based on conditions set by the national government. Based on all the South Korean government's involvement in the healthcare sector, I believe that it is mainly focused on public interests rather than a special group's interests. Nonetheless, with only 11% of the GDP being dedicated to the health sector, the South Korean government doesn't play an overpowering role, leaving most private medical institutions' investments.

South Korean Health Care System in the wake of Covid-19

According to Du and Lu (2016), South Koreans access universal healthcare, and the country is ranked first among Organization for Economic Co-operation and Development (OECD) nations in regard to healthcare access and second among the most efficient healthcare systems in the world. Precisely, the country has a remarkable hospital bed capacity of 12 beds per 1000 people compared to the 4.7 beds OECD average. South Korea's hospital capacity exceeds

most European nations such as Italy and Germany, which has 3.2 and 8.1 beds per 1000 people, respectively. Furthermore, the medical institutions in South Korea are well equipped with the latest medical equipment and drugs, coming second after Japan on the OCDE rank. For instance, the CT and MRI scanners in South Korea are 37.8 and 27.8 per one million people, respectively, compared to the OECD average of 26.1 and 16.4, respectively (Asianews, 2018).

At the onset of the Covid-19 pandemic, South Korea was second in the number of infections in the first two months of the outbreak, below China (ground zero). This would have been caused by the proximity and collaborations of South Korea and China. Fortunately, the country's healthy healthcare system ensured that the country posted low mortality and fewer new infections than most developed nations. According to Oh et al. (2020), South Korea responded successfully to the Covid-19 pandemic due to a high hospital bed capacity before the epidemic struck than other OCDE countries. Despite the country's health care services being predominantly provided by private medical institutions, the higher number of beds needed was provided through the rearrangement of beds within hospitals creating room for Covid-19 patients. Covid-19 patients were admitted without increasing the admission waiting time and without sacrificing non-Covid-19 patients as experienced in OECD countries like Italy, France, and Spain.

South Korean healthcare system has had prior critic that it fails to allocate a significant portion of the GDP to healthcare, achieving only 11.1%, below 20% OECD average. However, during the pandemic, the national government allocated 2.3 trillion Won to finance medical institutions in the quarantine and treatment processes. Further, the country has had healthcare professionals' inadequacy, with every 1000 people being attended by 2.3 doctors, below the 3.4 OECD average. The low number of medical personnel in the country could be attributed to the

low number of medical school graduates, standing at 7.9 per one hundred thousand students, compared to 12 per one hundred thousand graduates OECD average (Asianews, 2018). In response to the pandemic, MoHW called for medical professionals in private practice to volunteer in providing care and facilities in areas with a high population compared to the medical personnel (Oh et al., 2020).

Personal Assessment of the South Korean Health Care System

I believe that the South Korean health care system's effectiveness has been tested by the Covid-19 pandemic that has overwhelmed the health systems of most OECD countries. South Koreans voluntarily followed the World Health Organization Covid-19 protocol of discouraging all public gatherings to achieve social distancing, hand washing, wearing face masks and conducting contact tracing to better protect its citizens leading hospitals from becoming overwhelmed. Despite the country being very close to the Covid-19 epicenter (China) and having high initial infections, the country's robust healthcare system made it to handle the pandemic effectively and successfully. I believe that one of the primary facilitators of the success in addressing the Covid-19 epidemic in the country was an existing high hospital bed capacity as well as well-equipped hospitals. Most countries that experienced high Covid-19 related mortality lacked enough hospital space for those infected with the coronavirus. Further, I think having been exposed to the Middle East respiratory syndrome-related coronavirus (MERS-CoV) epidemic in 2015, the country had learned the purpose of early, aggressive response strategies to such an outbreak to prevent the spread of the virus. South Koreans were keen to listen to government directives to avoid the losses and pain they experienced with MERS. They also understood how vital collective action was in defeating the virus. Unlike most western nations

who waited for the people to get sick to begin containment measures, South Korea began the process of early and effective testing.

Despite these successes in addressing Covid-19, South Korea faced a couple of challenges. One huge challenge was the inadequate workforce despite the government efforts of mobilizing health workers in private practice. The country also faced shortages in Personal Protective Equipment, such as masks and gloves, despite making an earlier response in manufacturing the supplies. Regardless of the achievements made by South Korea, there remains the risk of a surge in Covid-19 infections from people arriving from other countries, imported infections since the government did not enact strict contagion measures. I feel that the country would have locked its ports from international arrivals to avoid dilution of the efforts made by South Korea. Further, I believe that having learned from the MERS epidemic, the country would have planned to increase its healthcare personnel. Moving forward, I believe health care policies should be designed to focus on early recognition of the health problem, and note the diagnostic capacity, and implementing aggressive measures early. Lastly, I believe that the South Korean healthcare system is one of the most effective systems globally and is a model for other nations around the world.

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