ESSAYS

REFLECTING ON THE “CHOSUN STRATEGY” OF 1880
Young Chung

TACKLING REGIONAL HEALTH INEQUITY VIA U-HEALTHCARE (UBIQUITOUS HEALTHCARE) IN INSULAR AREAS OF THE REPUBLIC OF KOREA
SeoHyun Lee
**KOREA’S NATIONAL STRATEGY: REFLECTING ON THE “CHOSUN STRATEGY” OF 1880**

Young June Chung

**Introduction**

In the ensuing years of the Cold War, the Republic of Korea (hereafter South Korea) has endeavored to establish itself as a thriving middle power amid its constrained strategic environment. Often depicted as a “shrimp among whales,” finding a new role and national strategy has always been a priority for South Korea. Against this backdrop, South Korea has, over the years, successfully elevated the horizons of its diplomacy through active participation in the global network, as a facilitator of global agendas, convener of international conferences and as a bridge between the developed and developing countries of the world. Transforming itself from a once poverty-stricken aid recipient, South Korea has now joined the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) to qualify as a donor state and has advanced to become the world’s seventh member of the “20-50 Club.”¹ South Korea has also become a global hub of trade and investment and is the only country in the world with the political will and economic preparedness to strike a reciprocal market access agreement with the three strongest and most competitive economies of the world—the United States (US), European Union (EU) and Association of Southeast Asian Nations (ASEAN).²

As a historical peace-loving nation with the moral grounds to lead peace efforts in Northeast Asia,³ Korea has also rapidly expanded to become an eco-

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1 “20-50 Club” refers to a group of industrialized countries with a per capita income of over $20,000 and a population of 50 million. South Korea joined as the seventh member after Japan, the US, France, Italy, Germany and the United Kingdom.


nomic (11th), military (14th), diplomatic (12th) and technologically innovative (4th) power by global rankings. It has also become a sports power, having finished in fifth place in the last 2012 Summer Olympics held in London.

Almost devoid of great power resources such as territory, population and natural resources, Korea has to utilize its human talents and diplomatic sensibility in drafting national strategies. Its diplomacy and foreign relations are vital in this regard. Amidst the frustration over North Korea and great power rivalry in Northeast Asia, South Korea as a relatively small power must continue to muddle along by ceaselessly connecting with the international community. Raising its soft power through dissemination of public and cultural diplomacy and actively transforming the paradigms of its relations with the rest of the world are critical steps for the peace and prosperity of the Korean peninsula.

Since the end of the Cold War, South Korea has continuously devoted the majority of its diplomatic capital toward resolving North Korea’s nuclear and missile threats and has been striving to strike a middle-line path of co-prosperity with its great power neighbors. Furthermore, the temporary ceasefire on the Korean Peninsula is increasingly becoming a complicated equation due to the other great powers’ preference to maintain a status quo policy. Against this backdrop, South Korea’s ultimate grand strategic objective of peaceful unification with the North is becoming an equation of higher degree, pushing South Korea to adopt an ever more creative foreign policy in the twenty-first century.

Against this backdrop, the diplomatic and national security initiatives undertaken by former South Korean presidents in the aftermath of the Cold War have significantly facilitated Korea’s rise and its elevated status in the global community. The first section of this paper introduces a brief overview of past South Korean presidents’ foreign policy and national strategy, starting with President Roh Tae-woo and ending with current President Lee Myung-bak. The second section introduces a booklet entitled “Chosun Strategy” written over one hundred and thirty years ago during the late nineteenth century. The policy paper yields significant implications for Korea’s contemporary foreign and security policies due to the intrinsically similar strategic environment Korea faced then and now, as well as the overlap of participants involved surrounding the Korean peninsula. The ensuing sections seek to analyze the contents of Chosun

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reflecting on the "chosun strategy" of 1880

Strategy and draw lessons for Korea’s foreign policy, concluding with a broader strategic guideline for South Korea’s future.

Korea’s Legacy in Foreign Policy and National Strategy

In the years following the end of the Cold War, South Korea’s foreign policy conduct witnessed two core strategic pillars: the North Korean question and globalization. Due to the division with the North, more than 90 percent of South Korea’s diplomatic resources have been subsequently invested in managing the security conflict pertaining to the Korean peninsula. In this regard, South Korean presidents since the early 1990s have strived to transform the Cold War paradigm on the Korean Peninsula to one of peace, stability and co-prosperity through deepened engagement in the global network.

President Roh Tae-woo (1988-92) led South Korea in the midst of the Soviet Union’s disintegration and the end of the Cold War, and successfully hosted the Seoul Olympics in 1988, paving the way for Korea’s deepened integration into the international community. Under Roh, South Korea joined the United Nations and pursued a policy of “Nordpolitik,” resulting in the eventual formalization of diplomatic relations with the Soviet Union and People’s Republic of China in 1992, once thought to be its ideological enemies. In terms of his North Korea policy, Roh was responsible for the formalization of the Inter-Korean Basic Agreement, which stipulated that the two Koreas would alter their longstanding confrontational structure to one of reconciliation and peace.

The Kim Young-sam administration (1993-97) was responsible for South Korea’s entry into the worldwide trend of accelerated “globalization” by opening its doors and becoming party to the World Trade Organization (WTO) and OECD. Its national strategies, however, faced setbacks due to outbreak of the so-called IMF crisis in 1997, and the first North Korean nuclear crisis in 1994.

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7 Nordpolitik was an endeavor by the South Korean government to diversify its foreign relations through forging friendly relations with traditional socialist countries such as Russia, China, and Eastern Europe, ultimately to construct permanent peace on the Korean peninsula through unification. See “Nordpolitik” in National Archives of Korea Website, http://contents.archives.go.kr/next/content/listSubjectDescription.do?id=002917 (accessed October 10, 2012).
8 National Archives of Korea, under “Diplomacy” from Roh Tae-woo administration, http://contents.archives.go.kr/next/content/listSubjectDescription.do?id=002871 (accessed September 29, 2012).
The Kim Dae-jung administration (1998-2002) came into office under the name of the “People’s Government” and pursued active multilateral diplomacy in the WTO, OECD, and Asia-Pacific Economic Community (APEC), and endeavored to increase South Korea’s international competitiveness by adopting cultural diplomacy as a new pillar of its diplomatic makeup\(^\text{10}\) and forging closer relations with four important countries involved in Northeast Asia: the United States, Japan, China and Russia. In terms of his North Korea policy, President Kim pursued a comprehensive security framework of inducing the North to open up to the international community under the name of “Sunshine Policy” and consequently convened the first-ever inter-Korean Summit in June 2000.\(^\text{11}\)

President Roh Moo-hyun (2003-2007) strove to build upon his predecessor’s North Korea policy by pursuing an engagement policy with the North and proclaiming to open an era of “Peace and Co-Prosperity in Northeast Asia.” Under President Roh’s leadership, South Korea devised what can be referred to as South Korea’s first “national security strategy.”\(^\text{12}\) Despite such major achievements, the foreign policies of President Roh’s “Participatory Government” repeatedly faced setbacks amid criticism of its initiatives to become a “Northeast Asian Balancer” and the subsequent strained relations with the United States. Meanwhile, in October 2006, North Korea conducted its first nuclear test following its test-fire of long-range ballistic missiles and the revelation of covert highly enriched uranium (HEU) nuclear facility at Yongbyon.\(^\text{13}\)

Against this backdrop, the Lee Myung-bak government came into office in 2008, pledging to open a new North Korea policy founded upon “strict reciprocity” of linking economic assistance with the nuclear problem.\(^\text{14}\) South Korea’s “Vision 3000: Denuclearization and Openness” policy and the “Grand Bargain” initiative based on “mutual benefit and common prosperity,” however, yielded limited results due to North Korea’s intransigence.\(^\text{15}\) The Six-Party Talks have

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been stalled since late 2008, and the Kumgang mountain tourism project was halted after a North Korean soldier shot South Korean tourist Park Wang-ja. The Lee Myung-bak government also faced immense opposition in the process of signing a Free Trade Agreement (FTA) with the US. In 2010, North Korea torpedoed a South Korean navy corvette leaving 46 sailors either dead or missing, and shelled Yeonpyeong Island, the first military attack on South Korean soil since the Korean War in 1950. Four South Koreans were killed and 19 were injured in the process. In spite of such hardships in dealing with the North Korean regime, the Lee Myung-bak government nonetheless succeeded in taking Korea to a new level of enhanced leadership on the world stage by engaging in active middle power diplomacy via its vision of becoming “Global Korea.”

With the new presidential elections due at the end of 2012, President Lee’s term is coming to a close. Reflecting on the past administrations in South Korea, it is safe to say that a few national security patterns will appear in the following years to come, depending on which political party succeeds in taking office next year.

First, whether the conservative or the progressive party succeeds in entering the Presidential Office, South Korea is likely to maintain its close alliance with the United States, which has served as the bedrock of peace and stability on the Korean Peninsula since the end of the Korean War in 1953. The degree of closeness with the US however, will sway, depending on how the political leadership views its relative relations with China due to the Sino-US structural relationship increasingly being portrayed as a zero-sum game. Under this condition, neighboring states like South Korea—which has significant geopolitical and economic interests that could suffer due to a souring of relations with China—will find it difficult to choose one side at the expense of the other. Second, South Korea’s North Korea policy is likely to become more engaging than the Lee Myung-bak government, but not as cooperative as the former progressive administrations of President Kim Dae-jung and Roh Moo-hyun. This is due
to the South Korean public’s accumulated frustration over the North in the past years, where many have come to believe that its economic assistance and unconditional support have propped up the North Korean regime and perpetuated the ongoing nuclear threat.

Against this backdrop, this paper introduces a booklet published over a hundred years ago by a Chinese diplomat, entitled Chosun Strategy. Its implications prove to be significant because it is the first geopolitical and strategic report in Korea’s foreign and national security context. Written in 1880 by Hwang Jun-hon, the policy brief recommends Chosun (Korea) to: open its gates to the world, adopt self-strengthening policies founded on Western practices and create a balance-of-power structure in Northeast Asia by “remaining close to China, creating ties with Japan, and allying with the US.” The paper and its recommendations were extraordinary considering the era—Korea was often referred to as the hermit kingdom at the time. However, the policy brief contains broad and useful assessments on the changing dynamism of global and regional order in Northeast Asia at the time. Thus, the Chosun Strategy can be considered a primary and therefore optimal historical text for charting Korea’s future foreign and national strategies, especially since the external circumstances surrounding the Korean peninsula during the time are intrinsically similar to today’s regional security order. In the subsequent years of the book’s publication, however, Korea was completely subdued by Japan for nearly forty years of colonialism, which still lingers as painful memories for the Korean people. Therefore, probing into the Chosun Strategy is a decisive starting point to analyze the prospects for the regional and global security environment surrounding the Korean peninsula today and formulating South Korea’s future paths to peace and prosperity. Doing so can also prevent Korea from future victimization.

Analyzing the Chosun Strategy

Written in September 1880 and roughly 20 pages in length, the aims and objectives of the policy paper were to inform the Koreans of the imminent invasion by Russia and how it was to evade such a calamity. The paper was drafted by a Chinese diplomat stationed in Tokyo named Hwang Jun-hon, and was conveyed towards engagement with the North has soured after the North’s attacks in 2010.


to his Korean counterpart, Kim Hong-jip, who was a special diplomatic envoy (Sushinsa) to Japan. Upon reception, Kim returned to Korea and presented the booklet to King Gojong and subsequently became the central figure promoting Korea’s enlightenment (Gaehwa) policies. By the end of 1881, Korea followed China’s steps by establishing a Ministry of General Affairs (Tongnigimuamun) in charge of Korea’s modernization efforts, steering the course towards an open-door policy and entering into multiple trade diplomacies with the West, beginning with the “Treaty of Peace, Amity, Commerce and Navigation” with the United States in 1882 and followed by a series of commercial treaties with Germany (1883), Russia (1884), Great Britain (1884) and France (1884) in the following years. Hence, the booklet is considered to have profoundly influenced and changed the nature of Korea’s foreign policies at the time.

As to the specific contents of the policy paper, Hwang Jun-hon’s awareness of the global situation was respectively broad and well-organized. His scope of vision reached as far as Europe and North America, and he was able to discern the ongoing dynamics of current affairs with considerable accuracy. The document starts off by describing Russian aggression in global politics:

There is a humongous state on the face of the planet under the name of Russia…. It has always sought to annex foreign land and has already acquired Sakhalin, east bank of the Heilongjiang River, and the mouth of Tumen River…. Its ambitions for conquest date back to some 300 years ago, which was first to acquire Europe, then, Central Asia, and now it was drawing near Asia and ultimately into the Korean peninsula.

With regards to Korea’s strategic environment and geopolitical significance in Northeast Asia, Hwang Jun-hon lays out a convincing assessment and a creative blueprint for Korea to reflect in its foreign policies:

The land of Korea is located at a pivot point in Asia indeed, and will never fail to be a contesting ground. If Russia wants to expand its territory, it will certainly start from Korea. Therefore, no other task is more

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urgent for Korea than to defend itself against a possible Russian invasion. What will be the measure for defense against Russia? We say the only way for Korea is to ‘remain close to China, create ties with Japan, ally with the United States’ and try to strengthen itself.  

Hwang Jun-hon then persuades Korea to strengthen its ties with China and Japan. On remaining close to China:

China has always protected Korea; if the whole world were aware that China and Korea were like members of one family, Russia would realize that Korea did not stand alone and would exercise self-restraint towards Korea.

On creating ties with Japan:

Japan and Korea are so close to each other that if either country were seized by Russia, the other would not be able to survive; therefore Korea should overcome its minor misgivings about Japan and promote great plans with Japan.

Hwang Jun-hon’s impression towards the US was especially favorable. On allying with the US:

The people of the country, following the moral teaching of their great founder [George Washington], have governed the country in accordance with propriety and righteousness....It is a democratic country...based on republicanism....It always helps the weak, supports universal righteousness, and thus prohibits the Europeans from doing evil.

It is the only Western power that has never sought selfish gains.

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24 Ibid.
26 Kim, The Last Phase of the East Asian World Order, 295.
Lastly, the *Chosun Strategy* derived modern applications of international law and balance-of-power theory emanating from Europe to convince the Koreans to enter into treaty relations with the West:

Why do Britain, France, Germany and Italy come to Korea and ask for alliance? Because that is what the West calls balance of power. Today, all states compete and struggle in all possible combinations, to a greater degree than in the times of the Warring States. If the great powers want to...keep a state of peace, it is possible only when they have a condition in which neither very weak nor very strong states exist so that they can maintain each other. If there is even one state that annexes other states, it increases its power and if it increases its power, it increases its military strength, which in turn threatens the security of all the other states.

The public law of the West does not allow any state to annihilate another. However, unless a country is signatory, it cannot be included in the system even when it is in danger of annihilation. This is why the Western states wish to form alliances with Korea...because they want to prevent Russia from monopolizing Korea and to maintain Korea in balance together with the other powers in the world.27

As can be read from the texts, the *Chosun Strategy* illustrates a clear overview of Chinese policymakers’ mindsets and the international strategic landscape surrounding the Korean Peninsula during the late nineteenth century.

**Evaluation**

The publication of *Chosun Strategy* in 1880 was a critical juncture for Korea’s future. In the next 30 years, the status of Korea altered dramatically—from China’s longtime tributary state to multiple stages of great power confrontation, culminating in the Sino-Japanese (1894) and Russo-Japanese (1905) Wars. Korea went from an isolated “hermit kingdom” to an open market for the West; it was then forced to become a protectorate of China, Russia and Japan until its eventual annexation and colonization by Japan in 1910. During the process, Korea’s closest neighbors and great powers in the region—China, Russia, Japan and the US—were significantly involved.

Hence, looking back, it is regrettable that the *Chosun Strategy* failed to re-

verse Korea’s eventual path to chaos. Had Huang Jung-hon’s recommendations and assessments of the international situation been more useful, or if the Korean policymakers were united in devising an efficient national strategy reflecting on the booklet, Korea’s future outlooks could have developed into a much more peaceful trajectory.

Likewise, the *Chosun Strategy* and its policy recommendations yielded limited results primarily due to its intrinsic fixation on Chinese traditional and feudalistic diplomacy. For Korea to “remain close to China, create ties with Japan, and ally with the US” was in essence a Chinese strategy to “use foreigners to subdue the foreigners.” However, such calculations presumed the mutual destruction of the “foreigners.”

Furthermore, China at the time was engaged in a territorial row against Russia on its western borders over Ili, and thus Huang Jun-hon’s appeals to the “Russian threat” as a strategic background lacks objectivity, since China’s threat perception could easily have been over-exaggerated. In fact, in the years following the booklet’s publication, it was actually Japan and China that caused most of Korea’s suffering.

**Conclusion: Lessons**

Korea can learn several lessons from the course of events that followed the publication of the Chosun Strategy. First, Korea’s trade diplomacy with the US, Europe, China and Japan in the late nineteenth century could not prevent the great powers’ eventual encroachment onto the Korean peninsula. This counters expectations based on liberal theories that economic engagement reduces the likelihood of war and increases security benefits. In this regard, despite government declarations, media reports and analyses claiming that Korea’s conclusion of FTAs with the US and Europe will amount to an economic alliance, is

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28 This refers to the Chinese concept of “yi-yi-zhi-yi:” To use barbarians (foreigners) to play off another barbarian.
30 “Liberals argue that economic interdependence lowers the likelihood of war by increasing the value of trading over the alternative of aggression: interdependent states would rather trade than invade. As long as high levels of interdependence can be maintained, liberals assert, we have reason for optimism. Realists dismiss the liberal argument, arguing that high interdependence increases rather than decreases the probability of war. In anarchy, states must constantly worry about their security. Accordingly, interdependence—meaning mutual dependence and thus vulnerability—gives states an incentive to initiate war, if only to ensure continued access to necessary materials and goods.” In Dale C. Copeland, “Economic Interdependence and War: A Theory of Trade Expectations,” *International Security* 20:4 (Spring 1996).
based on purely wishful thinking. The Chosun Strategy reveals economic and trade ties alone cannot provide the state with the necessary diplomatic leverage and deterrence to protect itself from its partners.31

Second, Korea’s upgrading of ties, especially with the US in the “Strategic Alliance for the Twenty-First Century” based on mutual trust and common values, as well as its “Strategic and Cooperative Partnership” with China, should be viewed from a strategic dimension ingrained with national interests of the joining state parties. Whether such strategic partnerships will become deterrents against hostile intentions toward Korea will have to be tested over the course of time. This was clearly evident in China’s decision to intervene in Korean affairs in the wake of Western intrusion into Korea in the late nineteenth centuries after the longtime practice of non-intervention, as well as the other great powers’ intervention surrounding the future of Korea despite the existence of modern international law. In this regard, strategic partnerships can be maintained peacefully when there are strategic interests to pursue for the party-states; however, they are also open for change and downgrading, depending on power politics and state’s modification in its strategic calculus.

Third, the longstanding relationship between China and North Korea (who are supposedly as close as “lips-and-teeth”) is likely to endure throughout the future even if the North’s strategic value to China decreases. Indeed, China intervened in Korean affairs in the nineteenth century not only out of fear of losing its vassal state but also because the two countries had learned to coexist in contention for a long period of time. In this respect, it can be inferred that the possibility of China’s intervention on the Korean peninsula in the case of sudden crisis in North Korea is almost certain. Such was the case in the Sino-Japanese War and the Korean War. Therefore, it is imperative that the Korean government be prepared to either accommodate Chinese intervention in Seoul’s favor or thwart-off possible Chinese influence through forging external alliances and increasing its military strength in order to raise the costs of any potential Chinese decision to intervene.

Lastly, it should be noted that Korea’s complex strategic environment today is nothing new, having endured for over 100 years, and that South Korea will be left to face a similar geopolitical structure throughout the future course of time. In certain respects, the situation today is even more discouraging due to tense relations with North Korea. However, South Korea can draw upon lessons of its history and reflect upon the outcomes when formulating its future policies.

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31 Korea’s military alliance with the US is a different case because the economic dimension has been added on to the security pact. However, that does not change the strength of the military alliance.
Fortunately, South Korea has developed rapidly over the years and has successfully started to initiate independent foreign and defense policies.\(^{32}\) South Korea also has the US as its main ally, and elements of its soft power—especially K-pop and Korean dramas—are sweeping across Asia, the Middle East, Europe and the Americas. South Korea has also successfully become a convener of international diplomatic activities, hosting the G-20 Summit, Nuclear Security Summit and the Fourth High Level Forum on Aid Effectiveness in 2010 and 2011. In 2012, it has also successfully become non-permanent member of the UN Security Council, and is now the host of the international Global Green Growth Institute (GGGI) and the Green Climate Fund (GCF), a full-fledged international organization envisioned to become a “World Bank” in the field of environment. Such middle power diplomatic initiatives are a “blue ocean” where Korea can reap the security effects and benefits\(^{33}\) traditionally and theoretically reserved to forging alliances, strengthening military arms, building nuclear weapons and enhancing economic engagements. Situated in an ideal middle position between great power rivalries in Northeast Asia and reflecting back on the situation in the nineteenth century, Korea should transform its seemingly disadvantageous strategic environment into its advantage in the future global network of accelerated globalization. **YJIS**


\(^{33}\) “South Korea will be more secure from any North Korean threat by being the base of a key U.N. fund on climate change, the presidential office said Sunday.” Quoted from “S. Korea to become more secure by hosting GCF secretariat: presidential office,” *Yonhap News*, October 21, 2012, http://english.yonhap-news.co.kr/national/2012/10/21/03010000000AEN20121021002000315.HTML (accessed October 23, 2012).
TACKLING REGIONAL HEALTH INEQUITY VIA U-HEALTHCARE (UBIQUITOUS HEALTHCARE) IN INSULAR AREAS OF THE REPUBLIC OF KOREA

SeoHyun Lee

Introduction

The Republic of Korea is renowned for its splendid ocean scenery, including approximately 3,000 islands across the country. Some are densely populated, while others are sparsely populated or unpopulated. However, the number of residents residing on these islands is not negligible, reaching a total of 260,803 in 2008.¹

Due to the geographic isolation and ensuing economic, social and cultural disparities, the unmet demands for healthcare on Korean islands have been problematic. Compared to mainland cities, the islands in Korea are especially vulnerable to poor quality medical services because of inadequate accessibility and lack of medical infrastructure. In fact, the current public health law in Korea states that only islands whose population account for 300 residents or more are eligible for a community public health center. Consequently, those who are living in the least densely populated islands are left behind in terms of healthcare services. These people are literally living in a dead zone for medical services. The medical infrastructure and public health workforce on Korean islands are insufficient, resulting in huge medical gaps between mainland Korea and Korean islands.

This paper will demonstrate the health inequity in Korean insular areas compared to mainland Korea and propose the concept of U-healthcare as a viable option to reduce the medical gap. The conceptual definition of Korean insular area refers to a region surrounded by sea on all four sides at high tide, with

the exception of Jeju Island.

Health Inequity in Insular Areas of Korea

The quality of medical services is relatively less favorable for the Korean insular population than mainland residents. This phenomenon of regional health inequity is attributable to a number of factors: geographic isolation, the lack of relevant public health policy, poor local finance, inadequate medical workforce and poor infrastructure. The major obstacle to the improvement of medical services in insular areas is accessibility. In terms of medical supply in Korea’s insular areas, the basic health infrastructure such as hospitals, public health centers, emergency medical services, pharmaceuticals and transportation is inadequate or insufficient.

A case in point is the total number of hospital beds in Korean insular areas compared to mainland cities. The number of hospital beds in Wando Island of the Jeonnam province was 231 in 2006, which shows a stark contrast to the number of hospital beds in Damyang (mainland city in Jeonnam province),
which was 1,031 in the same year. This figure vividly illustrates regional health inequity between insular and mainland areas, since the population of Wando Island is larger than that of Damyang. According to the 2010 national census, Wando Island has a population of 46,476 while the total population of Damyang is 40,726. The short medical supply in Korean insular areas eventually leads to long-term regional health inequity in regard to the quality and quantity of medical services. Figure 2 presents the status of medical care on Korean islands compared to the rest of the country.

A public health infrastructure that functions appropriately requires equilibrium between medical supply and demand. In the case of Korean insular areas, however, this equilibrium does not exist. Aside from geographic distress, the demand for medical resources has not been met in Korea’s insular areas. The deepening health inequity has resulted in unnecessary deaths through traffic accidents. There is a greater need for emergency medical service in insular areas since the death rates by traffic accidents tend to be higher along the coastline.

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and in insular areas. The correlation between mortality by traffic accidents and the demand for emergency medical services is inevitable because the most effective way to increase the chances for emergency patients’ survival is to provide prompt medical treatment.

Korean insular areas are burdened by the enduring medical shortage and health inequity, indicating an urgent need for measures to reduce the medical gap. Thus, realistic solutions will require government support through appropriate public health policy, public and private partnerships and a commitment of medical resources. The most important objective is to achieve health equity in the most effective manner.

**U-healthcare as a Solution to Health Inequity**

One innovative solution to the regional health inequity in Korea’s insular areas is U-healthcare. U-healthcare, an abbreviation for “ubiquitous healthcare,” is the application of IT (information technology), biotechnology and nanotechnology to provide healthcare service in terms of prevention, diagnosis, treatment and post-treatment with no time or space limitations. This new paradigm of healthcare service enables ubiquitous management of health, which can transform the conventional concept of medical service. Service models for U-healthcare can be divided into three categories: mobile healthcare, U-hospital and a wellness program. Figure 3 explains the model in more detail.

The actual effect of U-healthcare has been recognized as a success. Dr. Ahn Chul-woo’s research team at Yonsei University’s College of Medicine demonstrated the effectiveness of the home healthcare system for diabetes patients. 35 diabetes patients who participated in the research used the home healthcare system for blood glucose management for 12 weeks; their average fasting glucose level dropped from 159 mg/dl to 132 mg/dl, indicating a 17 percent decrease. In contrast, the control group did not show any signs of significant changes.³ This research sheds light on the development of U-healthcare, which will offer myriad possibilities in managing chronic diseases such as diabetes.

U-healthcare is an effective tool to close the medical gap between mainland and insular areas of Korea. The reasoning behind the U-healthcare as a feasible solution to the regional health inequity is straightforward: U-healthcare has the potential to significantly enhance the accessibility to better quality medical services and thus resolve the inaccessibility problem, which is a root cause of health inequity in Korea’s insular areas.

## FIGURE 3: U-HEALTHCARE SERVICE MODEL

<table>
<thead>
<tr>
<th>Category</th>
<th>Project Title</th>
<th>Contents</th>
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<td>Mobile Healthcare</td>
<td>U-glucose management (KT-Incheon Choongang General Hospital)</td>
<td>Mobile glucometer</td>
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<tr>
<td></td>
<td>U-healthcare service(Catholic University of Korea)</td>
<td>Online diabetes management program</td>
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<tr>
<td>U-hospital</td>
<td>U-health consulting (KT-GC healthcare*)</td>
<td>KT health consulting service to provide health related information, health consultation, medical checkup appointment, illness management, visiting nurse service</td>
</tr>
<tr>
<td>Wellness</td>
<td>U-health service project (Songdo International Business District)</td>
<td>Collaboration of preventive medicine and residential environment</td>
</tr>
<tr>
<td></td>
<td>U-health behavior management (Asan city)</td>
<td>Physical activity and nutrition management service tailored for individual citizen’s health status</td>
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<td></td>
<td></td>
<td>Electronic record system and management for physical exercise via RFID system**</td>
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<tr>
<td></td>
<td></td>
<td>Joint remote medical consultation appointment for Asan city public health center and Soonchunhyang University</td>
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</tbody>
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**KT-GC healthcare**: Korea Telecom and Green Cross Healthcare joint project

**RFID system**: Radio-frequency identification system is a system that uses wireless non-contact system to transfer data from a tag attached to an object

**FIGURE 4: EXAMPLES OF U-HEALTHCARE DEVICES**

Life vest that analyzes the blood pressure, body temperature, heart rate, breathing, movement of the legs and other functions.

Remote control device for medical treatment that enables telemedicine via a built-in camera and transmits the medical records to the hospital.

Wrist device for healthcare that monitors blood pressure, body temperature, heart rate.

Heart rate tracker for the elderly.

Mobile ultrasound diagnostor.

Mobile electrocardiographer that transmits the information to the hospital.

Wireless exercise measuring device.

Artificial intelligence toilet that monitors weight, body temperature, blood pressure and transmits the information to the computer.

Overview of U-healthcare in Korea

Over the past five years, U-healthcare services in Korea have been at a deadlock due to strict regulations and controversy among different interest groups. The current medical law in Korea prohibits the practice of remote medical treatment by physicians. In other words, a patient should visit a doctor in person to get a prescription. Although there have been several pilot projects for U-healthcare in insular areas and prisons in Korea, the medical treatment via U-healthcare is allowed only if a doctor or nurse is present. Korea’s National Assembly continues to debate measures to promote U-healthcare legislation, but it has not made significant gains because of strong opposition from the Korean Medical Association. The members of the Korean Medical Association argue that U-healthcare will bring about huge confusion because it has yet to be fully developed. The main reasons cited by those opposed to U-healthcare include: legal complexities in the case of medical malpractice, complexities in medical insurance fees, indiscreet disclosure of personal medical records and a lack of training programs for U-healthcare experts.

However, the benefits from U-healthcare override those legal concerns, which will be resolved in due time. First of all, the U-healthcare market will boost the economy along with the development of medical technology. As Korea is recognized as one of the world’s IT leaders, technological development for the U-healthcare market is also growing at a rapid pace. Investments in U-healthcare businesses are continuing to increase.

Secondly, despite the obstacles and challenges to U-healthcare in Korea, it is expected to bring a promising future to the medical services for the underprivileged population. Since U-healthcare is based on the remote interaction between healthcare providers and patients, the geographic coverage of the service area will be greatly increased. Therefore, U-healthcare will contribute to reducing regional health inequity in insular areas to a large extent. Recently, a number of U-healthcare mobile devices have been introduced by domestic medical technology companies, which have proven to be the driving force for the development of the U-healthcare market in Korea. Figure 4 provides examples of U-healthcare devices used for the management and regular checkup for the health-related index and health risk factors. Some are in the process of development and others are currently in use.

4 Ibid.
Conclusion

In this essay, the regional health inequity of Korea’s insular areas has been discussed and the concept of U-healthcare proposed as a key to reducing health disparities. As discussed, Korea’s insular areas are vulnerable to a chronic shortage of medical supplies due to complicated economic, social and political reasons, resulting in extensive inaccessibility to medical services. It seems evident that the geographic isolation of the insular areas is unavoidable. Despite the “tyranny of distance,” technology and human effort can make a difference in bridging the healthcare divide between insular and non-insular areas. In this regard, U-healthcare is the way towards health equity, eliminating physical barriers to improve the public health situation of insular regions. If utilized, U-healthcare will enable the mobilization of medical resources so that they can be delivered to anyone, anywhere and at any time. YJIS