

# Light and Shadows of the Korean Healthcare System

Tai Joon Moon

Korean Medical Association, Seoul, Korea

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Address for Correspondence:

Tai Joon Moon, MD

Korean Medical Association, 203-75 Ichondong-gil,

Yongsan-gu, Seoul 140-721, Korea

Tel: +82.2-794-2474, Fax: +82.2-794-8351

E-mail: taijmoon@yahoo.co.kr

This article reviewed achievements and challenges of the National Health Insurance of the Republic of Korea and shared thoughts on its future directions. Starting with large workplaces of 500 or more employees in 1977, Korea's National Health Insurance successfully achieved universal coverage within just 12 yr in 1989. This amazing pace of growth was possible due to a positive combination of strong political will and rapid economic growth. Key features of Korea's experience in achieving universal coverage include 1) gradual expansion of coverage, 2) careful consideration to maintain sound insurance finances, and 3) introducing multiple health insurance societies (multiple payer system) at the initial stage. Introduction of the health insurance has dramatically improved Korea's health indicators and has fueled the rapid growth of basic medical infrastructure including medical institutions and professionals. On the other hand, the successful expansion was not free from side-effects. Although coverage has gradually expanded, benefits are still relatively low. The current situation warrants concern because coverage expansion is driven by welfare populism asserted by irresponsible political slogans and lacks a social consensus on basic principles and philosophy regarding the expansion. Concentration of patients to a few large prestigious hospitals as well as the inefficiencies resulting from a colossal single-payer system should also be pointed out.

**Key Words:** Korea; Health Insurance

## INTRODUCTION

Starting with large workplaces of 500 or more employees in 1977, the National Health Insurance of the Republic of Korea successfully achieved universal coverage in just 12 yr. Korea's experience in achieving universal health insurance in such a short period of time can be presented as a reference to other developing countries aiming to introduce universal health insurance in a situation of limited national resources.

In the process, I have closely witnessed and sometimes personally shaped many medicine-related policies while serving several key positions including a parliamentary member of the National Assembly, the Minister of Health and Social Affairs and the President of Korean Medical Association. This article draws upon the 30 yr of development of Korean medicine and the successful adoption of universal health insurance in Korea.

## ERA BEFORE HEALTH INSURANCE

During the 1960s and 1970s, the Korean economy and society was gradually recovering from the devastation and scars left behind by the Korean War (1950-1953). In the early 1960s, Korea was still one of the poorest countries in the world. Per capita income was only around USD \$100. Huge income gaps, relatively

high medical costs, and total dysfunction of public health institutions limited the public access to modern medicine. Under these circumstances, Japan's successful introduction of health insurance system inspired Korean ruling party politicians, who then organized a study group dedicated to the topic. This group was organized by key party leaders including myself. After a year of study, the group made a conclusion that Korea must also adopt a national health insurance system and recommended a detailed plan to the President of the Republic of Korea in 1972. The key principles set forth in this proposal were as follows:

- 1) The program should follow market principles.
- 2) Population coverage will gradually expand according to the pace of economic recovery.
- 3) At the same time, investments should be made to modernize dilapidated hospital facilities (especially the municipal and provincial hospitals outside the capital) to handle increased demand for medical services.
- 4) Decisions regarding medical fees should not be made solely by the government but through consultation and coordination with various stakeholders.

Initially, the idea of the health insurance system met fierce oppositions. Government officials in charge of finance insisted that universal health insurance was not affordable for a country

with only a \$1,000 per capita income. Medical doctors concerned that public health policies could be decided unilaterally by the Government with the introduction of national health insurance system and would regulate their professional independence and autonomy.

Despite numerous challenges, President Chunghee Park, who understood the harsh reality of poverty better than anyone else, courageously decided to adopt health insurance. President Park himself came from a poor family and knew better than anyone about the agony of not being able to afford healthcare.

### **LAUNCH OF THE NATIONAL HEALTH INSURANCE AND ITS GRADUAL EXPANSION**

Against this backdrop, Korea first introduced its National Health Insurance in July of 1977. The initial scope was to cover all employees of large enterprises with 500 or more employees. Employers were to shoulder 50% of the insurance contribution to facilitate contribution payments, which was a wise device that helped boost the system's financial stability and minimize the risk of failure. Government employees and private school teachers were added to the coverage in January 1979, and employees of workplaces with 5 or more employees were added in July 1988. Workplace health insurance has expanded to include single-person workplaces in 2003.

On the other hand, district health insurance societies, which mainly cover farmers, fishermen and the self-employed, had to confront numerous complications. The main issue of complication was lack of transparent income data and the resulting difficulty in setting up equitable contribution levels. Despite these challenges, after a pilot project during 1981 and 1982, the Agricultural and Fisheries Health Insurance was launched in January 1988, which was another landmark in the expansion of district health insurance. A notable feature of the district program was that the government immediately subsidized 30% of the premium for those expected to have difficulties in paying contributions in order to prevent program failure (1).

The most critical piece in expanding health insurance to all Koreans was the inclusion of the urban self-employed. Under an incomplete tax collection system, about 70% of urban self-employed people were not paying any income tax, and therefore lacked any income data for contribution calculations. I was appointed as the Minister of Health and Social Affairs in 1988, when the expansion of coverage to urban self-employed was to be implemented. Looking back, I feel that I never worked harder in my life. Initially, Korea's health insurance was organized into multiple-insurer system just as in Japan. I think this structure greatly helped expand coverage to urban self-employed. With high population density and almost the entire country living within a day's travel, the multiple-payer system provided solid foundation for the successful adoption of health insurance be-

cause it was based on the spirit of neighborhood helping each other.

However, discrepancies among insurers in terms of contributions and benefits have become shortcomings of the multiple-payer system. Also, the limited pooling of financial resources had the risk of causing financial instability and low income transfer effects. In Korea, from the 1990s, the widening gap in financial conditions between insurers as well as inequalities in terms of healthcare service usage and contributions became more and more serious. In response to such concerns, all insurer societies were merged into a single insurer called the Korean National Health Insurance Corporation (KHIC) in 2000. This transition from a multiple insurer structure to a single insurer system is hard to find anywhere else in the world.

The integration into a single insurer helped stabilize finances through a greater pooling effect and improved income transfer effects. It also corrected some of the inequalities in contributions and benefits that existed between insurers. The integration into a single insurer is also thought to have somewhat mitigated the problem of contribution inequity. On the other hand, the colossal size of the single insurer has been a target of criticism for its inefficiencies and a lack of competition. The final verdict on the integration is still pending.

### **ACHIEVEMENT OF UNIVERSAL HEALTH INSURANCE**

After overcoming various challenges, universal health insurance was successfully launched in Korea on July 1, 1989. It was truly an unforgettable moment as a medical doctor and as a politician when I appeared on national television to announce that each and every Korean could now visit any hospital to receive care under the universal health insurance.

The most agonizing moment as a surgeon was when I had to watch the dejected patients and their families turning away because they could not afford life-saving treatment. That is why it was so dear to me that I was able to play a part in addressing this tragic situation with the successful introduction of health insurance.

During the 30 yr since the first introduction of health insurance, Korea has achieved remarkable results in expansion of medical infrastructure and improved public health indicators. First, the medical service usage has increased from 0.1 day of inpatient care per person in 1977 to 1.32 days in 2006. During the same period, outpatient visits also increased from 0.7 day to 14.7 days. The medical cost per visit changed from 41,334 won in 1990 to 24,560 won in 2005 for inpatient treatment and from 6,530 won to 17,998 won for outpatient treatment during the same period (2). The rapid increase in medical demand led to a sharp increase in medical supply. In 1980, Korea had only 80 hospitals, which increased to 296 in 2006. In addition to the

growth in number, each hospital also became larger. The number of clinics also increased from 6,363 in 1980 to 25,780 in 2006. Medical professionals also increased from 39.7 physicians per 100,000 Koreans in 1981 to 141.1 physicians in 2006 (1). The increase of medical institutions accompanied by the expanded number of hospital beds especially at hospital levels.

Health insurance's contribution to public health is clearly demonstrated by improvement in various health indices. Life expectancy at birth among Koreans was 52.4 yr in 1960, which was about 16 yr shorter than the Organization of Economic Cooperation and Development (OECD) country average of 68.37. As of 2005, Korea's life expectancy became 78.5, reaching the OECD average. The number of infant mortality rate in Korea was twice that of OECD members in the 1970's but as of 2002, infant mortality rate came down to 5.3 for every 1,000 births, which is lower than the OECD average of 6.2 deaths per 1,000. In all aspects, Korean public health indicators witnessed dramatic progress.

## CHALLENGES AHEAD

However, Korean health insurance was not free from shortcomings. A unique feature of the Korean system is allowing members to freely choose any medical facilities regardless of region or type of medical institution. As a result, patients from all around the country were motivated to visit the larger hospitals rather than small local clinics. The high concentration of patients to prestigious hospitals in Seoul became a particular problem. Co-payments were raised for hospital visits to curb this aggregation but this was not enough to discourage patients. This led to a deterioration of quality in certain high-demand institutions where patients often had to "wait three hours for a three minute consultation." The sprawling size of the KHIC has also been criticized for its financial inefficiencies.

Politically, I think the issue is a result of that health insurance was introduced without sufficient public debate and consensus building regarding the overall philosophy for health insurance. More specifically, the issue of whether to go for a "high contribution, high benefit" or for a "low contribution, low benefit" model was never thoroughly discussed. Without a clear orientation, the many interested parties i.e. government, labor union, employers and non-governmental organization groups still believe that the lowest possible medical fee is in their best benefit. Together with the unproductive populism of some politicians, these groups have been fed an unrealistic fantasy about expanded benefits. Unfortunately, no one seems to have the courage or honesty to mention the inevitable increase in cost that would accompany this expansion.

In 2000, Korea implemented two major reforms by integrating over 350 local health insurer societies into one, and separating drug prescription from dispensing. The two reforms started

to quickly drain the health insurance coffers, which could only be stabilized after contribution hikes and government financial support. However, as soon as the crisis was stabilized, the government once again announced plans of expanding health insurance benefits and implemented policies enabling free hospitalization for children under the age of 6 yr and subsidizing up to 80% of meals for in-patients in 2006. This policy pushed the health insurance finances once again into the red letters. The government was forced to scale back the benefits to a 10% co-payment for hospitalization of children under 6 and a 50% subsidy for in-patient meals. As demonstrated by episode, increase in benefits is inevitably accompanied by increase in burden. In that context, the suggestion of "free healthcare" in Korea is an unsustainable concept being pitched by irresponsible populism.

Another issue posed by Korea's health insurance is that it triggers confusion among patients about who the service provider is. There is a risk that the government and NHIC are recognized as the providers while the Korean Medical Association (KMA) is seen only as a puppet that follows their instructions.

As future tasks, I would like to mention a few suggestions on how to strengthen health insurance finances. The most critical is to increase premiums to appropriate levels. Korea's current contribution rate is 5.64%, which is considerably lower than that of other countries with a social insurance program. In addition to premium increases, government subsidies should also be gradually expanded and additional revenue sources should be explored. Currently, health tax is levied only on cigarettes but I think alcoholic beverages would be an excellent candidate for additional taxation.

## OTHER PROMINENT ISSUES

With that brief overview of the introduction background and achievements of Korea's health insurance, I would now like to point out a few special characteristics of the Korean system, particularly in comparison to the Japanese system. The Korean Health Insurance Act currently only specifies medical items that are not covered by insurance. Therefore, theoretically, all other items could be considered to qualify for insurance coverage. Examples of non-coverage items include cutting-edge medical technologies such as robotic surgery or magnetic resonance imaging (MRI), costs considered inconsistent with insurance goals (e.g. upgrading to a better hospitalization room), and the cost for seeing a designated specialist who meets a certain qualification. All non-coverage items are to be 100% paid by the patient.

Even though theoretically the insurance should cover all items that are not non-coverage, in practice, a separate benefit criteria is used in the claims review process and the insurer can insist upon arbitrary non-coverage, which complicates the insur-

ance structure. Arbitrary non-coverage would be treatments that exceed the benefit criteria but are considered necessary by both the patient and medical institution and therefore burdened solely by the patient. This is the result of unclear benefit criteria and limited financial resources. Surgical material and expensive cancer treatment modalities are some major examples of arbitrary non-coverage.

In Korea, the same medical condition can be treated by combining covered and non-covered items. Such combined treatment, which is banned in the Japanese system, was allowed from the very start of the Korean insurance system so that patients could still receive fully satisfying medical service despite limited coverage. In a way, it also helped limit the financial burden of the insurer. By using non-coverage and combined treatment options, the government was able to prevent excessive financial drain while expanding coverage. However, this naturally ended up in the increase of out-of-pocket expenses by patients. As of 2008, Korea's health insurance coverage ratio was 62.2%, which was considerably lower than the OECD average of 80%. As of 2008, out of the total medical expense, the insurer accounts for 62.2%, co-payment (patient's share of covered item) accounts for 22.6% and out-of-pocket for non-covered items 15.2%. In terms of amount, of the 58 trillion won of total medical expenses incurred by health insurance patients, the insurer pays 35 trillion won, co-payment accounts for 23 trillion won, and non-covered out-of-pocket is 11 trillion won (3).

The last feature I would like to highlight is the use of information technology (IT) in insurance claim processing and review, which I have heard is an initiative underway in Japan as well. Computerizing the claim process in Korea started in 1996 with a pilot project using electronic dispensary program. In 2004, 99% claim-computerization was achieved. The number of reviewed cases also increased dramatically from 410 million in 2000 to 1.28 billion in 2009. The introduction of IT technology aims to make the review more professional and efficient. In 2010, 50% of claims were processed through electronic review, which helped save 93 billion won a year and replaced the work of 150 people.

## EPILOGUE

In 1958, I had returned from my training in the US and took my position as the head of the Neurosurgery Department at Yonsei University, Seoul. As my conclusion, I want to introduce a story of a 12-yr-old boy and his family that I had met. The boy needed surgery to remove a tumor from his cerebellum. When I explained the situation to his father who was a farmer, he asked for some time to discuss the matter with his family and left my office with his wife. After a while, he returned and said "We are poor farmers and the only possession we have is an oxen but we need it to keep working the farm. If we sell the oxen to pay for the surgery, the entire family will lose our livelihood. Even though it tears my heart, we have no choice but to give up." Watching the dejected father hopelessly leave my office, I felt utter frustration and despair about why I could not do anything about it. Why did I become a surgeon? I had learned the latest medical knowledge and skills from the US but what could I do when the entire society was suffering from poverty? This dilemma had tormented my heavy heart for a long time.

Three decades later in 1988, I finally saw the light. As I had explained, Korea finally had achieved universal insurance coverage, I had the personal honor of announcing this on national television on the morning of July 1, 1989. It is a moment I will never forget. As a medical doctor and a politician, I was able to open the dark shadows and to show light to all Koreans. It was the moment when the financial barrier that stood between physicians and patients was brought down. I feel great pride and privilege to have served my part in this historic process.

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