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# **BUILDING SYSTEMS FOR UNIVERSAL HEALTH COVERAGE IN SOUTH KOREA**

DISCUSSION PAPER

MARCH 2015

*Sanggon Na  
Soonman Kwon*





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**Sanggon Na and Soonman Kwon**

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## Health, Nutrition and Population (HNP) Discussion Paper

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# Health, Nutrition and Population (HNP) Discussion Paper

## Building Systems for Universal Health Coverage in South Korea

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**Abstract:** This paper broadly examines the development process of Korea’s health care system toward the achievement of Universal Health Coverage. Korea implemented a series of health care reforms after a rapid expansion of population coverage to improve efficiency and equity in financing and delivery of health care. The authors also investigate changes in the governance structure of Korea’s national health insurance, which is now represented by two agencies: National Health Insurance Service (NHIS) and Health Insurance Review and Assessment Service (HIRA). Health insurance agencies have improved the accountability and transparency of the health insurance system, thanks to the ICT-based centralized claim review and assessment. Lessons and challenges from Korea’s experiences and achievements on the road to UHC could provide valuable policy implications to low- and middle-income countries.

**Keywords:** Universal Health Coverage, Health Insurance, Health Information System, Health Care Reform

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## PART I – INTRODUCTION

The advances and challenges experienced by Korea's health system in the last forty years can provide many important lessons for low and middle- income countries. From the late seventies to the first years of the new century, Korea implemented measures that led to a rapid expansion of population coverage and to the achievement of universal health coverage (UHC) in only twelve years. The country instituted major health reforms aimed at ensuring efficient and equitable delivery of services and improving financing structures of its health system. UHC is a continuous process that requires building a sustainable financial protection system; the Korean government implemented a series of reforms even after health insurance covered the entire population.

While these objectives were largely achieved, and as it was to be expected, the reform faced important political opposition from key stakeholders. Some of the measures introduced to deal with these challenges had negative fiscal “side effects” causing the government to introduce a comprehensive set of policies and actions with the goal of preserving the fiscal and financial sustainability of the system.

The next section reviews the historical development of the Korean health insurance system and the 1977-1989 road to UHC. It also examines the process and outcomes of two major health care reforms in 2000: the merger of health insurance societies into a single insurer, and the separation of the processes of prescribing and dispensing medicines. Then the development of governance and health information systems to improve transparency and accountability is examined. It discusses lessons and policy implications relevant for developing countries. The report concludes by examining future challenges for the Korean health insurance system.

## PART II– DEVELOPMENT OF KOREA’S HEALTH INSURANCE AND ROAD TO UNIVERSAL HEALTH COVERAGE (UHC)

### *POLITICAL AND ECONOMIC CONTEXT*

Korea’s health insurance scheme was formally established in December of 1963 with the enactment of the Health Insurance Law by the military government immediately after its *coup d’état*. The law, however, did not require compulsory enrolment due to the weak economic and social development of the country at the time. Mandatory social health insurance was not implemented until the mid-1970s, with the significant revision of the Law in December of 1976 that included *mandatory* enrolment in the health insurance scheme.

The need for political legitimization of an authoritarian (military) political regime played an important role in the introduction and extension of social health insurance in Korea (Kwon, H., 1999). Contrary to western welfare states, labor movements, leftist parties or class struggles played no role in the development of health insurance in Korea. There was no labor party or social democratic political party, and labor unions became active only in the late 1980s. With an authoritarian top-down policy process driven by elite bureaucrats and political leaders, the government led the introduction of health insurance in Korea (Kwon, 2009). Government expected that health insurance for employees would help stabilize the labor market by keeping skilled workers in the workforce, which was an important policy concern in an era of rapid economic expansion.

The rapid pace of economic growth and improvement of well-being was generated by the export-driven industrial policy through a series of five-year Economic Development Plans that started in the early 1960s. Then the government recognized the country’s need for a welfare system, leading to the emphasis placed on social development policies by the Fourth Economic Development Plan of 1977-1981, which aimed at distributing the fruits of economic development to the people. In fact, a combination of political and economic factors contributed to the rapid extension of health insurance coverage to unprotected population groups, particularly to the self-employed and workers in the informal sector, who constitute a major challenge for achieving universal coverage (Kwon, 2009).

On the political side, the 1987 presidential election, the first free national-scale presidential election in about 20 years, prompted President Chun Doo Whan and the presidential candidate of the ruling party, Roh Tae Woo, both former military generals, to seek political support and legitimacy by proposing UHC. The ruling party used the expansion of social welfare programs as a major item on its campaign agenda and in 1986 the Government announced a UHC plan to include the self-employed in the National Health Insurance (NHI).<sup>1</sup> On the economic side, the booming economy of the late-1980s, with Korea experiencing record-high annual growth rates of about 12 percent between 1986 and 1988, substantially improved the capacity of the self-employed to pay for social insurance contributions. It also provided the government with

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<sup>1</sup> The national pension scheme and the minimum wage system were also introduced at this time.

the fiscal capacity to subsidize health insurance for the self-employed, the last group to join the NHI in 1989.

### **INSTITUTIONAL STRUCTURE AND IMPLEMENTATION OF KOREA'S NATIONAL HEALTH INSURANCE**

The implementation of Korea's National Health Insurance scheme began with those population groups that were easiest to reach and enroll. Accordingly, employees of large corporations with more than 500 workers were the first group to be covered by health insurance in 1977. Health insurance then was extended to workers in firms with more than 300 employees in 1979. It was further extended to firms with more than 100 employees in 1981 and to those with more than 16 employees in 1983. A Medical Aid program (Medicaid) for the poor was also introduced in 1977, and public-sector employees and school teachers joined the health insurance in 1979. To extend health insurance to the self-employed, the government implemented pilot programs in three rural areas in 1981 and in one urban area and two additional rural areas in 1982. Those pilots were targeted for the self-employed and included premium setting and collection, benefit package, and social marketing for enrollees and providers in the community level. The health insurance program achieved universal coverage of the population by including the rural self-employed in January 1988 and the urban self-employed in 1989 (Table 1).

**Table 1 Expansion of Population Coverage in Korea (Unit: 1,000 persons)**

	1977	1980	1985	1990	1995	2000	2005	2011
<b>Health Insurance + Medical Aid</b>	<b>5296 (100%)</b>	<b>11368 (100%)</b>	<b>21254 (100%)</b>	<b>44110 (100%)</b>	<b>45429 (100%)</b>	<b>47466 (100%)</b>	<b>49154 (100%)</b>	<b>50909 (100%)</b>
<b>Health Insurance</b>	<b>3200 (60%)</b>	<b>9226 (81%)</b>	<b>17995 (85%)</b>	<b>40180 (91%)</b>	<b>44016 (97%)</b>	<b>45896 (97%)</b>	<b>47392 (96%)</b>	<b>49299 (97%)</b>
Employee Health Ins.	3140 (59%)	9161 (80.4%)	16425 (77.5%)	20759 (47%)	21559 (47%)	22404 (47%)	<b>27233 (55%)</b>	33257 (65%)
Self Employed Health Ins.	-	-	375 (2%)	19457 (44%)	22457 (49%)	23492 (49%)	<b>20159 (41%)</b>	16043 (32%)
Occupational /Voluntary Medical Ins.	- /60 (1%)	- /65 (0.6%)	954(4.5%)/ 241(1%)	-	-	-	-	-
<b>Medical Aid</b>	<b>2095 (40%)</b>	<b>2142 (19%)</b>	<b>3259 (15%)</b>	<b>3930 (9%)</b>	<b>1413 (3%)</b>	<b>1570 (3%)</b>	<b>1762 (4%)</b>	<b>1609 (3%)</b>

Source: Statistics Korea, various years.

Contrary to the rather smooth extension of health insurance to formal sector employees, its extension to the self-employed faced tough resistance (Kwon, 2009). Farmers requested government subsidies for their contribution and the expansion of health care facilities in rural areas to improve their access to medical care. Consequently, government subsidized health insurance for the self-employed and provided financial incentives and loans for private hospitals to open in rural areas. The subsidy was initially about half of the total revenue of the health insurance scheme for the self-employed,

and was later reduced incrementally. As government tightly regulated the fee schedule for (both public and private) providers through health insurance, lower fees (than customary fees) were applied to enrollees of health insurance, which provided an incentive to join health insurance.

From the beginning, the health insurance system adopted family-based membership, and dependents became members of the scheme in which their household head was enrolled. A well-established family registry system made family-based coverage easier to implement. The NHI also used a pluralistic system with multiple insurance societies (funds), which were based on either firms (for the formal sector) or regions (for the self-employed). For the employee health insurance scheme, large corporations had individual firm-level insurance societies, while small and medium-sized firms and the self-employed were pooled to join an insurance society in their geographic area. In the society (fund)-based health insurance, risk pooling was limited as it was only up to the level of each insurance society. Each insurance fund was responsible for revenue collection, enrollment, and limited amount of ancillary benefits, and government set uniform statutory benefits and fee schedule for providers.

The government's decision to structure the health insurance financing through decentralized multiple funds rather than a centralized single fund, was to encourage the sustainability among the insured and to minimize government financial involvement. The rationale to cover employees and the self-employed in separate insurance societies was to avoid the problems associated with different levels of income assessment and contribution collection between the two groups. It was much easier to assess income (ability to pay) and collect contribution from employees than the self-employed.

Health care provision under the NHI was dominated by private providers, who were reimbursed by fee-for-service payment. The fee schedule was determined by the government rather than negotiated, and providers complained that the fee level was too low. Fee for service payment for all types of care, from primary care to tertiary inpatient care, have had the potential for inefficiency and demand inducement. All these characteristics of the Korean health system would greatly impact its development as will be seen in Section III.

### **ACCOMPLISHMENTS AND CHALLENGES**

Korea has achieved big improvements in health outcomes such as life expectancy and mortality since the development of health insurance (Kwon, 2009)<sup>2</sup>. But health outcomes are determined by many factors other than health care, such as economic development and other socio-political factors, and it is difficult to estimate the contribution of health insurance itself to the improvement in health outcomes. Health care utilization has increased substantially, along with both the economic growth of the country and the development of health insurance.

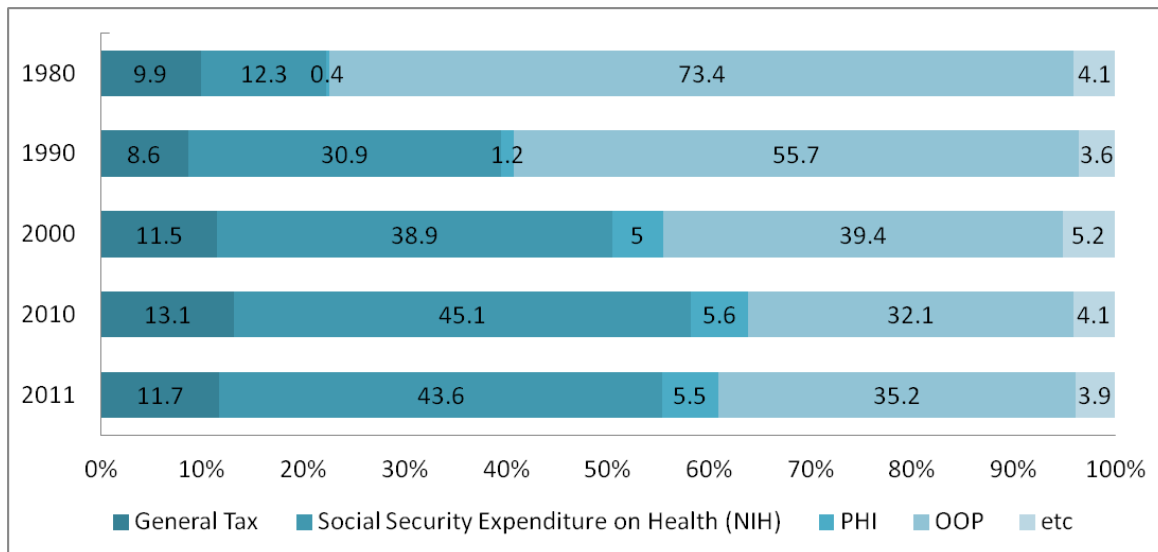
However, important challenges remained after the achievement of universal population coverage. The priority given to rapid extension of population coverage has resulted in relatively low contributions and limited benefit coverage (for example, benefit ceiling of total 90 days of utilization per year). Out-of-pocket payment still represented more than

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<sup>2</sup> For example, life expectancy increased by 12.6 years between 1977 (64.8) and 2003 (77.4).

half of the sources of financing by 1990, which meant that the country still presented insufficient levels of financial protection (Figure 1). The multiple insurance societies resulted in high administrative costs, inequity across societies, and limited risk pooling, and many funds in rural areas suffered from fiscal deficits. For example, the proportion of the administrative cost in total expense was the lowest (4.8 percent) in the health insurance scheme for government and school employees (single insurance fund) and the highest (9.5 percent) in the health insurance scheme for the self-employed (NHIC, 1999). Health insurance contribution for the self-employed as a proportion of income in poor rural areas was higher than that in rich urban areas. These concerns became the major motivation for the health care reform to merge all funds into a single fund in 2000.

**Figure 1 Source of Financing for Health Care in Korea**



Source: OECD Health Statistics, 2012.

Finally, the rise in medical care utilization was met by a rapid increase in the supply of private-sector providers. While private providers are keen to ensure consumer satisfaction, very strong profit motivation and the fee-for-service payment mechanism have resulted in demand inducement and cost increases. For example, the numbers of physicians and hospital beds per 10,000 persons increased from 5 and 17 in 1981 to 8 and 30 in 1989, respectively. The number of physician visits per capita increased from 3.7 in 1977 to 6.2 in 1989 (further increased to 10.6 in 2002) (OECD, 2006). As will be seen below, private providers also became important sources of opposition to health care reform measures, such as changing the payment system from fee-for-service to prospective case-based payment, when these became necessary.

## **PART III – HEALTH CARE REFORM AND FISCAL CRISIS**

### ***CONTEXT OF HEALTH CARE REFORM***

In 2000, two major health care reforms were implemented simultaneously to solve some of the key challenges generated by the implementation of the NHI financing structure. The high administrative costs created by the proliferation of insurance societies, the inequity in contributions across them and the limited cross-subsidization from the better off to the poor led to the merging of insurance funds into a single insurer system. The perverse financial incentives that existed for physicians and pharmacists to prescribe more medicines in order to increase their income led to the separation of drug prescribing and dispensing.

The organization of the NHI in decentralized funds led to the creation of more than 350 quasi-public insurance societies until the late 1990's. These health insurance societies were divided in three categories and were subject to strict regulation by the Ministry of Health and Welfare (MOHW): (i) the more than 100 health insurance societies for industrial workers and their dependents; (ii) a single society for government employees, teachers, and their dependents, and (iii) the more than 200 societies for the self-employed. Beneficiaries were assigned to insurance societies based on their type of employment (for employees) and residential area (for the self-employed), and health insurance societies did not compete.

Creating a single payer aimed to increase the efficiency of risk pooling and minimize administrative costs (Kwon, 2003a). The differences in contribution rates across insurance societies, in spite of identical statutory benefits, also raised concerns about equity. Members of insurance societies in poor or rural areas had to pay a greater proportion of their income in contributions, compared to people in wealthy areas. The merger was expected to improve equity by applying national level contribution rates. Before the merger, risk sharing mechanisms among insurance societies based on expenditure and the proportion of old population in each fund did not address the fiscal insolvency of many regional insurance societies in poor or rural areas.

Before the pharmaceutical reform, physicians and pharmacists in Korea both prescribed and dispensed medicines. This created financial incentives for physicians and pharmacists to dispense more drugs and to select those with greater profit margins (Kwon, 2003b), a phenomenon aggravated by the fact that physicians were able to purchase drugs at prices that were much lower than the reimbursement rates set by the health insurance. In addition, because the government strictly regulated fees for medical services through a fee schedule, dispensing drugs was more profitable for physicians than providing medical services. The perverse financial incentives for physicians and pharmacists and easy consumer access to drugs contributed to the high proportion of total health expenditure spent on pharmaceuticals in Korea. The proportion of pharmaceutical spending in health care expenditure in Korea was 31%, whereas that in OECD countries was below 20% on average in the mid 1990s (NHIC, 1997; OECD, 1995). More importantly, the system resulted in misuse and/or overuse of drugs such as antibiotics. In addition, doctors' explanation about medications to patients were often found wanting. Because the separation reform forced physicians to disclose the prescription to patients and pharmacists, pharmacists could have a chance to double-check prescriptions and give more explanations to patients.



## **IMPLEMENTATION OF THE REFORMS**

The two reforms introduced major structural change to Korea's health care system. The progressive government, the president's keen interest in social policy, and active participation of civic groups played important roles in the two reforms, which were discussed for a long time but not implemented due to opposition of vested interest groups. The new president used to be a famous leader of democratic movements in the former authoritarian regimes. He was keen to ensure social solidarity and socioeconomic reforms to improve equity and invited progressive civic groups in the policy process.

With two reforms, a paradigm change in health policy making toward a pluralistic model with active participation of stakeholders (Kwon and Reich, 2005) happened. The labor unions of workers (officers) in the self-employed insurance funds supported the merger while those in employee insurance funds opposed it. Both labor unions represented the interests of their members (that is, enrollees in their funds) (Kwon, 2003a): (formal sector) employees were not supportive of the merger as it would potentially increase their contribution because their income was easier to assess, compared with the self-employed. Furthermore the merger would provide a better and nation-wide career path for those working in the self-employed insurance system. Before the merger, health insurance funds for the self-employed were small and localized with little mobility of personnel.

It should be noted that the Korean health insurance system, although fragmented with multiple insurance funds, had favorable conditions for merger such as centralized claim review, uniform statutory benefits coverage, and a uniform payment system for providers (fee schedules). The uniformity across insurance funds before the merger was made possible because government played a key role in the initial design and implementation of the health insurance system of Korea.

Physicians concerned with the potential loss of income from the dispensing of medicines strongly opposed the medicines reform (Kwon, 2003b), while pharmacists wanted to keep the right to prescribe. Physician and pharmacist lobbies were powerful influences in health policy and effectively blocked change for a long time (since the universal coverage of population). Despite these pressures and because of the strong support of civil society, the pharmaceutical reform separating the prescribing and dispensing roles was finally adopted in 2000. Civic groups actively participated in the policy reform process, supporting the measures proposed by the government, as they were political allies of the progressive government. The end of the authoritarian regime and the democratization in public policy making opened a critical window of opportunity for a major change in Korea's health policy process, which had been dominated by the medical profession and elite bureaucrats (Kwon and Reich, 2005). New groups – most importantly, civic groups and labor unions – could participate in the policy process and became deeply involved in the design of health care financing reform and pharmaceutical reform. Civic groups quickly and actively pursued opportunities for health reform, making it possible to adopt policies that threatened vested interests.

However, the implementation of the new policies was not easy. The country faced a series of nationwide strikes by physicians, which led to changes and distortions to the

reform package.<sup>3</sup> In fact, physicians gained strong bargaining power after their nation-wide strikes, as these had an important negative impact in a health care system in which more than 90 percent of hospitals are private. As a result, the government agreed to a substantial increase in physicians fees in order to compensate for their loss of income, a measure that greatly contributed to the 2001 fiscal crisis of the health insurance system (Kwon, 2007), as will be discussed below. The physicians also succeeded in pushing the government to defer its planned national extension of the DRG payment system to all health-care providers (Kwon, 2003c).

**Table 2 Fiscal Status of Health Insurance in Korea (Unit: 100 Million Korean Won)**

	1990	1995	1997	1999	2000	2001	2006	2012
Revenue	24,321	54,354	72,967	86,923	95,294	116,423	223,876	418,192
Expenditure	21,641	50,537	76,823	95,614	105,384	140,511	224,623	388,035
Annual Surplus	2,680	3,817	-3,856	-8,691	-10,090	-24,088	-747	30,157
Accumulated Surplus	7,326	41,200	37,851	22,425	9,189	-18,109	11,798	45,757

Source: NHIC, Health Insurance Statistics, various years.

### **COST CONTAINMENT/FISCAL SUSTAINABILITY STRATEGIES**

The aging of the population, fee-for-service payment system, increasing demand for healthcare, and low contribution rates had all contributed to the accumulating financial pressures on Korea's health system. It was, however, the rapid and sharp increase in medical fees – of 44 percent from November 1999 to January 2001 – adopted to end the physicians' strike against the pharmaceutical reform (Table 3) that ultimately triggered the fiscal crisis of 2001, when the national health insurance system experienced fiscal deficit after depleting all accumulated surplus.<sup>4</sup> Before the reforms, the Korean government had strongly controlled medical fees without fully including the medical profession in the fee setting process.<sup>5</sup> However, with the separation reform, direct cost control with tightly regulated fee scheduling became less effective as fee scheduling became a collective bargaining process rather than a one-sided government decision.

<sup>3</sup> For example, physicians opposed the obligation of generic prescription and were allowed to continue with brand-name prescription.

<sup>4</sup> The general public strongly criticized the government, putting the blame for the financial crisis on the two reforms. The separation reform definitely accelerated the crisis with the rapid fee rise. However, the impact of the integration reform was neutral given the decrease in administrative costs and potential purchasing power of the single insurer (National Health Insurance Corporation)

<sup>5</sup> Physicians were reimbursed according to a fee schedule established by the MOHW after approval by the Ministry of Finance and Economy. The medical fee was regarded as a public utility charge like the electricity rate.

**Table 3 Rate of Increase for the Medical Fee (Unit: %)**

1998	1999	2000 (Apr)	2000 (July)	2000 (Sep)	2001	2002	2003	2004
3.50	9.00	6.00	9.20	6.50	7.08	-2.90	2.97	2.65
2005	2006	2007	2008	2009	2010	2011	2012	2013
2.99	3.58	2.30	1.94	2.22	2.05	1.64	2.20	2.36

Source: NHIC, Health Insurance Statistics in various years.

Faced with a fiscal crisis, in May of 2001 the government announced a comprehensive policy package of short and long-term financial stability measures and a Special Act to support their authority.<sup>6</sup> The financial stability measures aimed to share the burden of the adjustment among the government, insurers, providers, and the insured. The short-term measures consisted of a physician fee freeze, dropping some medicines from the benefits package, decreased drug prices, increased copayments, and tightening of physician claims review (Kwon, 2007). The government plan also included the suspension of benefit coverage expansion and a 9 percent annual increase in the contribution rate until 2006.<sup>7</sup> The long-term measures included strengthening the health information management system, payment system reforms, introduction of public long-term care insurance (to reduce social admissions to acute care hospitals), and the expansion of public-sector health institutions.

Two measures in the Special Act deserve special attention: (i) the increase in the government subsidy and (ii) the introduction of a Health Insurance Policy Review Committee. The Act temporarily increased the government subsidy to the self-employed fund from 28 percent to 50 percent, significantly contributing to the fiscal health of the health insurance system and changed the trend of steadily declining tax subsidies for health insurance. The government subsidy incrementally decreased as the fiscal health of health insurance was restored. A major portion of the government's subsidy came from the health promotion fund which was based on the taxation of tobacco products.<sup>8</sup> However, this use of the fund to rescue the health insurance from the financial crisis has been criticized for diverting fund resources away from its original purpose of supporting health promotion programs.

The single insurer system that emerged after the merger of the many health insurance societies meant that major decisions on health insurance became major items in the national agenda, requiring a new policy framework and institutional arrangement. In this sense, a Health Insurance Policy Deliberation Committee (HIPDC) was created in 2001 with the mandate to approve major decisions on health insurance, such as contribution rates, benefit packages, pricing, etc. The most striking feature of this committee was its ability to coordinate and synchronize decisions related to the contribution rate and the medical fee, which were previously determined through separate mechanisms, limiting the government's ability to balance the major revenue and expenditure components of the health insurance system. Two insurance agencies, the NHIS (National Health Insurance Service) and HIRA (Health Insurance Review and Assessment Service) were

<sup>6</sup> The Special Act for the Financial Stability of National Health Insurance was enacted in January 2002.

<sup>7</sup> In March 2002, the contribution rate was increased by 6.8 percent, lower than the 9.0 percent planned. In the same year the medical fee was also decreased by 2.9 percent, the only cut in the health insurance history.

<sup>8</sup> Cigarette prices were increased in 2002 to fund the increased government subsidy to the self-employed insurance fund.

created after the merger of insurance societies, and they have provided evidence and technical inputs to the Health Insurance Policy Deliberation Committee.

The Committee consists of 24 members with the Vice Minister of Health and Welfare as its chair. It is a tripartite committee of payers, providers, and public agencies, coupled with technical experts. Membership is designated by representative organizations: 8 members from payers (labor unions, employer associations, civic groups, patient groups, etc.), 8 from providers (physician association, hospital association, dentist association, pharmacist association, nurse association, traditional physician association, etc.), 4 members representing the public interest (MOHW, Ministry of Strategy and Finance, NHIS and HIRA), and 4 experts appointed by the government. These four experts are usually academics and are supposed to provide neutral technical opinion, but health care providers often complain that the four experts tend to support the government position, neglecting the providers' perspective.

### **ACCOMPLISHMENTS AND CHALLENGES**

The two reforms of 2000 were an important step that helped to improve efficiency and equity in financing and delivering health care in Korea. The new single payer system increased the pooling capacity and potential bargaining power of the insurer as the purchaser, as well as equity in health insurance contributions. Now health insurance has a uniform contribution schedule and people with the same income (capacity to pay) contribute the same amount regardless of where they work or live. As was expected, the separation reform seemed to help control the overuse of drugs. According to Jones (2010), the percentage of claims containing an antibiotic prescription declined by 26 percentage points between 2000 and 2007. From a political economy perspective, the introduction of the single insurer system and the experience of fiscal crisis put health insurance issues (for example, fiscal status, contribution, benefits, provider payment) on the national policy agenda.

As already noted, the two health care reforms introduced a paradigm change in the politics and process of health policy making in Korea (Kwon and Reich, 2005). The change of government and the president's keen interest in health policy led to a democratization in public policy process and more pluralist context, which opened a window for policy reform. The government, for example, surveyed public opinion on some of the possible policy measures for fiscal stability before adopting a policy.<sup>9</sup> Civic groups played an active role in the policy process by shaping the reform proposals, a major change from the previous authoritarian policy process that was dominated by a closed group of experts, bureaucrats, and medical professionals. The reforms also reflected the important roles played by the different interest groups. Strong support by the rural population and labor unions contributed to the financing reform. In the pharmaceutical reform, civic groups quickly succeeded in setting the reform agenda; the medical profession was unable to block the adoption of the reform but their strikes influenced the content of the reform during its implementation. Future reform efforts in Korea need to consider the political management of vested interest groups and effective reform strategies.

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<sup>9</sup> Examples of questions in the survey: (i) what do you think about the argument that the medical fee should be lowered? (ii) Do you think the government should keep expanding the benefit coverage in spite of the current fiscal instability?

Health care delivery in Korea, which is dominated by private providers paid by a fee-for-service system, is vulnerable to cost increases and fiscal crisis. Fee-for-service gives medical providers incentives to increase the volume and intensity of services (for example, the amount of medical care provided per visit or hospital admission, or the number of visits to providers for a given episode of care) and to choose treatments with a greater revenue margin. The inefficiency of fee-for-service payment is exacerbated by private providers' strong incentive for profit.

To this day, the single insurer agency still does not fully exercise its monopsonistic bargaining power, deterred by the threat of strike by physicians in the health care system where more than 90 percent of hospitals are private. For example, the proposal of changing the current fee-for-service payment system to a prospective, case-based payment mechanism has faced tough oppositions from health care providers. This is a major challenge for the system, as the future financial sustainability and efficiency of Korea's health insurance system hinges on the policy makers' and regulators' capacity and willingness to effectively use their purchasing power to introduce new effective payment systems other than the existing fee-for-service model (Kwon, 2009).

Another legacy of the initial policies that structured Korea's health insurance scheme in the late seventies was the requirement that all health care providers participate in the health insurance system. Because the government was then concerned that providers would not want to join the health insurance program due to the tight fee schedule, it mandated that all medical providers had to treat insured patients. However, Korea may now need to re-consider the contractual relation between the insurer and medical providers. Korea no longer needs to require all providers to join the NHI, as it has a sufficient supply of providers who depend on the health insurance program. In fact, this current mandate limits the ability of the single insurer to exercise its purchasing power, since it cannot selectively contract with providers based on their performance. To the contrary, the change into a contracting model may have the risk of two-tiered system if better providers opt out of the national health insurance system.

## **PART IV – GOVERNANCE AND HEALTH INFORMATION SYSTEMS (2000–PRESENT)**

### **CONTEXT**

The merger of the health insurance societies introduced a new single insurer agency (NHIC<sup>10</sup>: National Health Insurance Corporation) and created a new insurance review agency (HIRA: Health Insurance Review and Assessment Service). Even before the merger, claims were reviewed by a central agency, which was under the association of health insurance funds for employees. Centralized claim review and an integrated information system have been an important element of the Korean health insurance system, and contributed to the rapid merger of the health insurance societies.

The association of employee insurance funds, which was responsible for the centralized claim review for the entire health insurance system (including the self-employed), was against the merger, and maintained that the insurance system should have a separate agency for claim review and medical assessment, independent of the new single insurer agency. For a long time, health care providers complained that claim review was frequently driven by the fiscal concerns of the insurer (because the claim review department was in the employee insurance fund). They requested that medical claims, instead, be reviewed on the basis of the appropriateness of the services provided. Consequently, health care providers strongly supported the idea of a separate independent health insurance review agency, independent of the NHIC. The government, on the other hand, expected that a separate agency specializing in claim review, quality management programs, and the assessment of the appropriateness of care would be able to more rapidly increase its assessment capacity and contribute to improve the quality of health care.

Management of the health insurance system is divided between the two agencies based on their specific functions. NHIS handles premium collection, fund pooling, and reimbursement to providers, and HIRA handles issues related to purchasing such as benefits coverage, payment system design, and claim review. For example, HIRA has technical committees for evaluating if a new service or medicine should be included in the benefit package. Since 2011, contributions to all social security programs (pension, unemployment insurance, work-place injury) were collected by NHIS. The integrated information system and nationwide availability of all health insurance information is a key factor contributing to effective communication between NHIS (for collection and pooling) and HIRA (for purchasing).

### **GOVERNANCE STRUCTURE**

HIRA plays an important role in determining the payment structure of the NHI.<sup>11</sup> But the fees-for-service payments are determined by negotiation between the NHIS and each provider association such as the Korean Medical Association, Korean Hospital Association, etc. If the negotiation fails, the Health Insurance Policy Committee decides the fee. In the case of pharmaceuticals, HIRA handles the (positive) listing of new

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<sup>10</sup> Now called NHIS (National Health Insurance Service)

<sup>11</sup> For example, HIRA determines relative values of individual medical services under the Resource Based Relative Value (RBRV) system

medicines based on economic evaluation (cost effectiveness) through aforementioned technical committees. Then NHIS and the pharmaceutical manufacturer negotiate the reimbursement price of medicines.

One of the positive aspects of the division of functions between the two insurance agencies is the potential for checks and balances. HIRA, as a new and highly technical agency, has helped to introduce a new management culture into the health insurance system. The NHIS is, however, a very large organization, and as the monopolistic provider of health insurance, it may not have a strong incentive to respond to enrollees' needs quickly, which can also result in an insufficient effort to enhance managerial efficiency.

On the other hand, the existence of two separate agencies may lead to some duplication of functions and/or divergence between them. The NHIS often complains, for example, that the HIRA's committee responsible for the decisions related to the benefit package does not pay enough attention to fiscal implications and consumer preference.

The relationship between NHIS and HIRA is heavily affected by the Ministry of Health and Welfare. The strong power of MOHW in monitoring the behavior of the two insurance agencies comes from its role in approving their budget. MOHW also influences the appointment of key top-level officers of the two agencies. Furthermore, the Bureau of Health Insurance in the MOHW plays a key role in the formulation of health insurance policy, which is implemented by the two insurance agencies.

### **HEALTH INFORMATION SYSTEM**

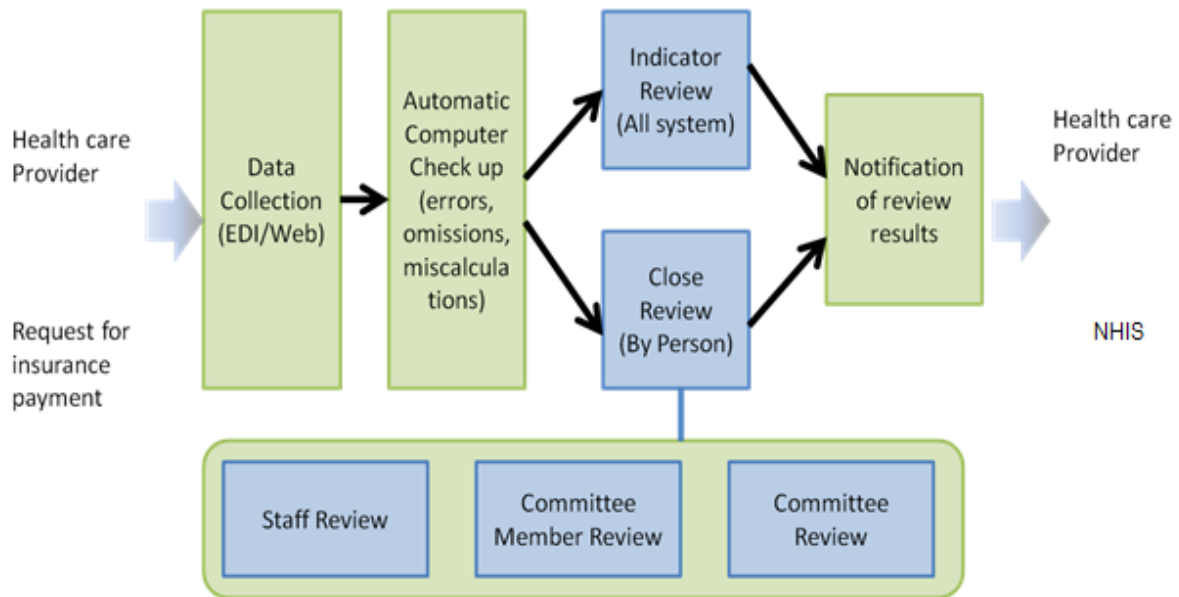
HIRA has increased the accountability and transparency of the health insurance system thanks to an IT-based centralized claim review and assessment. Claim review based on explicit criteria makes the review process more transparent and makes clear to providers what is not paid and why. IT-based claim submission and review expedites the payment process, contributing to low administrative cost. NHIS also depends on IT for the management of enrollees (for example, income, health care utilization, out-of-pocket payments). All health care providers send their claims to HIRA for reimbursement (usually monthly). The review process is defined by detailed guidelines (for example, which services, how many times a given service can be used,<sup>12</sup> etc.). After a computerized check for errors, omissions, and miscalculations, HIRA performs an indicator-based review (Figure 2). In case of outliers, a stricter review is performed. When the review is over, HIRA sends the results to the NHIS, which then pays the providers. Thanks to the use of IT, the entire process – from claim to reimbursement – takes a maximum of 15 days. In addition to regular staff, HIRA has various committees of medical experts from different specialties.

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<sup>12</sup> For example, how many time a given cancer medicine can be provided to a cancer patient.

## Figure 2 Claim Review by HIRA (Health Insurance Review and Assessment)

Review the appropriateness of health care cost based on review guidelines



Every year, 1.4 billion claims are filed. It takes about 15 days from claim to payment.

Source: HIRA

The fact that HIRA has a good information system also contributes to its quality improvement program. HIRA's Drug Utilization Review (DUR) program is a good example of an effective IT application. When physicians prescribe and pharmacists dispense medicines, information is immediately forwarded to HIRA. Based on nationwide utilization data of patients, HIRA checks (in real time) precautions for age and pregnancy, duplications and adverse interactions among prescribed drugs and between the drugs prescribed and those currently used by the patient. DUR is expected to contribute to health improvement and cost containment.

HIRA also disseminates provider information and performance to consumers (through the HIRA website) to help them make rational choices of providers (Kim, 2011). In the hospital sector, quality is measured in terms of structure, process and outcome for selected areas, such as Acute Myocardial Infarction (AMI), acute stroke, use of prophylactic antibiotics for surgery, caesarean section, and Coronary Artery Bypass Graft (CABG). Regarding outpatient medication, information is gathered on prescription rates of antibiotics and injectables, number of medicines per prescription, and cost of medicines prescribed. Information on the performance of health care providers is disclosed in the HIRA website. Comparative performance information is provided to health care providers to help them change their behavior by examining the variation of their behavior and performance from those of their colleagues.

HIRA has implemented pay for performance (P4P) for selected areas for tertiary and general hospitals (Tchoe, 2011). It began with AMI and Caesarean section.



Performance measures include volume, process (use of timely interventions and medications), and outcomes (mortality within 30 days) for AMI, and the difference between actual and risk-adjusted C-section rates in the case of C-section. The performance of 43 big general hospitals was first evaluated at the end of 2008, which were then grouped into five categories of relative ranking. A financial incentive of 1 percent of the total health insurance reimbursement (for a given hospital) was paid to the best ranking group (group 1) at the end of 2009. A financial disincentive of -1 percent of the insurance reimbursement was introduced in 2010 for hospitals with performance scores lower than an (absolute) threshold, which was set to the highest performance score among hospitals in the group 5 (lowest ranking group) in 2008.

Despite these advances, HIRA needs to expand its performance measurement (that is, elaborate existing measures and introduce more measures) and improve its transparency through better public disclosure and explanation of how it measures performance, so consumers are more informed and able to make better decisions. It also needs to be able to control potential distortions in provider behavior, such as the selection of less severe patients, the neglect of areas where performance is not measured, etc. Although physicians are strongly opposed, DUR should be extended to check dose adequacy and the overall appropriateness of prescriptions, taking into account patient characteristics. Pay for performance to hospitals needs to take account of the performance of individual physicians and be extended to the outpatient sector.

Finally, the overall efficiency of health care provision is limited by the fee-for-service payment, which creates perverse incentives for providers to provide more services and services with higher profit margins. Claim review for thousands of services under fee-for-service is very costly. The guideline book for claim review is already too thick, and there is continuing controversy and tension between the providers and the insurer over the adequacy of the guidelines.

## **PART V – LESSONS LEARNED AND POLICY IMPLICATIONS FROM THE KOREAN EXPERIENCE**

### ***POLITICAL AND ECONOMIC ELEMENTS***

In Korea, the top down policy process set by an authoritarian regime contributed to the rapid extension of population coverage by suppressing potential opposition by employers (who had to pay half of the contribution of employees) and health care providers (who had to accept the tight fee regulation). As government reduced the fees for health insurance, employees regarded enrollment in health insurance as benefits (that is, access to health care by paying only a percentage of lower priced services). Rapid economic development increased the payment capacity of employers and enrollees.

Political legitimization of the military government played a key role in the introduction of health insurance in the 1970s and the democratization process and election motivated the authoritarian government to rapidly expand population coverage in the late 1980s. Along with the political will of the authoritarian regime, its financial commitment in subsidizing the self-employed also helped the rapid extension of health insurance to the informal sector. Progressive president/government and the democratization of the health policy process with active participation of civic organizations contributed to the subsequent reforms after the universal coverage of the population.

### ***RISK POOLING AND COVERAGE***

The implementation of a single risk pool made it possible to pool risks better and to cross subsidize the poor. The fact that insurance membership was family-based (that is, included family members and dependents along with the family head) was one of the factors that contributed to the rapid expansion of coverage. The institution of multiple insurers was more practical in the Korean context, as the inclusion of different population groups with diverse characteristics into a single risk pool from the beginning of the NHI program would have required costly and complex managerial structures. This pragmatic choice also contributed to the rapid extension of population coverage. The experience of Korea indicates that starting with multiple pools, but minimizing differences in contributions, benefits, and provider payments across pools can be an appropriate option.<sup>13</sup> Centralized claim review based on uniform guideline and effective information system have also helped reduce differences across the pools and enhanced the efficiency and equity of the Korean health insurance system.

Prioritization between population coverage and benefits coverage has been difficult in Korea. The policy choice of prioritizing population coverage resulted in limited benefit coverage. Had Korea started with generous benefits coverage, the rapid extension of population coverage would have not been possible due to the high costs (for example, premium) of such a system.

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<sup>13</sup> That is, a decentralized health insurance system as an intermediate stage can be considered.

### ***PRIVATE HEALTH CARE PROVIDERS AND REFORM POLITICS***

Increased purchasing power and rapid increase in health care utilization due to the presence of health insurance have been met by the rapid increase in the supply of private health care providers. Health providers that can deliver quality health care are an essential component of any health care system. Although the expansion of private providers contributed to meeting the rapidly increased demand for health care since health insurance was introduced, the predominance of private providers and the passive privatization (that is, the number of public providers remained the same, but that of private providers increased, resulting in the decline in the relative proportion of public providers) have had some side effects (Yang, 1998). Almost all graduates of medical schools become specialists, and the role of tertiary care hospitals has been increased. For example, tertiary care hospitals accounted for 16.5 percent of total health insurance expenditure in 2001, which increased to 22.9 percent in 2010, while the share of physician clinics in health insurance expenditure declined from 46.3 percent to 29.6 percent during that period (NHIC, 2012).

The dominance of private providers has had an impact on health politics and health expenditure such as the use of new medicines and high-technology equipment in Korea. Private health providers have been very strong opponents to health care reform in Korea. Civic groups or citizen participation can counteract these pressures and push the government to move toward universal health coverage. Citizens can also participate in the definition of benefits so these better reflect their needs and preferences and take into account their capacity to pay contributions or taxes (Kwon, et al, 2012).

## PART VI – FUTURE CHALLENGES

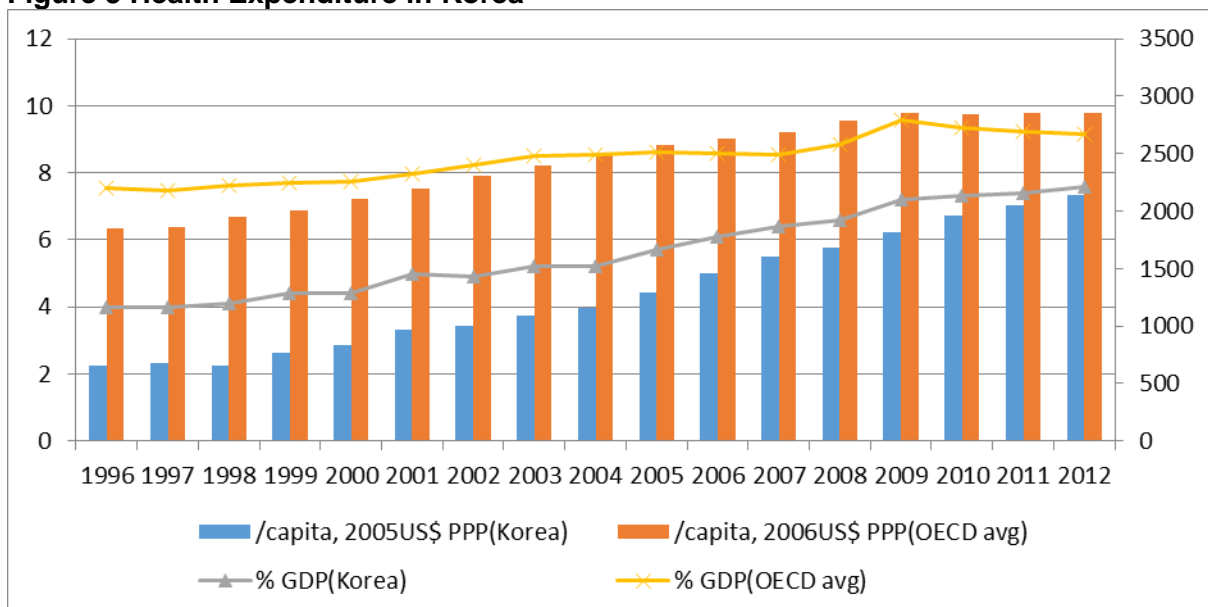
### *IMPROVE FINANCIAL PROTECTION*

Out-of-pocket (OOP) payment still accounts for a significant portion of total health care expenditure in Korea (Figure 1), potentially leading to insufficient financial protection. The relative cost sharing for insured services and direct payment for un-insured services (not in the benefits package) was at 62.7 percent and 37.3 percent of the total out-of-pocket expenditure in 2006, and has changed to 54.5 percent and 45.5 percent in 2011 (Seo, et. al, 2011). However, high OOP payment and limited financial protection is not only related to the size and depth of the benefit package, but is also heavily affected by provider behavior. Korea has experienced a very rapid increase in the provision of services not included in the benefits package because these are not subject to fee scheduling, generating high profits. As government has incrementally expanded the benefits package, providers have quickly induced the demand for new services and technology.

### *EXPAND THE BASE OF INSURANCE CONTRIBUTION FOR FINANCIAL SUSTAINABILITY*

Health expenditure in Korea has been increasing rapidly. Although health expenditure as a percentage of GDP is still lower than the OECD average, its rate of increase is one of the highest among OECD countries (Figure 3). Payment system reform for providers is an imminent task for sustainability. In addition, the current contribution setting is inefficient as it potentially discourages labor participation in the formal sector, since health insurance contributions for employees are only based on wage income, while people have increasingly diversified sources of income. The system is, therefore, inequitable as it treats wage income less favorably than other types of income. Korea needs to expand the income base for health insurance contributions, which should be charged on all types of income, leading to surcharges (earmarked for health insurance) on rental income, financial income, etc.

**Figure 3 Health Expenditure in Korea**



Source: OECD Health Statistics, 2012.

### ***COPE WITH POPULATION AGING***

Korea's population is aging rapidly. The impact of aging on per capita health expenditure is controversial (Zweifel, 1999) as the proximity of death is an important determinant of health spending (Sin, et al., 2012). Indeed, population aging has been regarded as one of the factors contributing to increased health expenditure. Per capita health expenditure of the elderly (over 65 years old) is more than three times greater than that of the non-elderly as of 2012 (NHIC, 2012). Korea introduced public long-term care insurance, which is also managed by NHIS, in 2008, and one of the arguments used for its implementation was to reduce social admissions in acute-care hospitals (Kwon, 2008). However, overall, the health care system is not ready to cope with the rapidly aging population, and the coordination of health care and long-term care is a critical issue.

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This paper broadly examines the development process of Korea's health care system toward the achievement of Universal Health Coverage. Korea implemented a series of health care reforms after a rapid expansion of population coverage to improve efficiency and equity in financing and delivery of health care. The authors also investigate changes in the governance structure of Korea's national health insurance, which is now represented by two agencies: National Health Insurance Service (NHIS) and Health Insurance Review and Assessment Service (HIRA). Health insurance agencies have improved the accountability and transparency of the health insurance system, thanks to the ICT-based centralized claim review and assessment. Lessons and challenges from Korea's experiences and achievements on the road to UHC could provide valuable policy implications to low- and middle-income countries.

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