Advancing Universal Health Coverage: What Developing Countries Can Learn from the Korean Experience?

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### Abbreviations

<table>
<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>C-section</td>
<td>Caesarean section</td>
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<tr>
<td>CRVS</td>
<td>Civil Registration and Vital Statistics</td>
</tr>
<tr>
<td>DRG</td>
<td>Diagnosis-related Group</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HIPDC</td>
<td>Health Insurance Policy Deliberation Committee</td>
</tr>
<tr>
<td>HIRA</td>
<td>Health Insurance Review and Assessment</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>KPIS</td>
<td>Korea Pharmaceutical Information System</td>
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<tr>
<td>LTC</td>
<td>Long-term Care</td>
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<tr>
<td>LTCI</td>
<td>Long-term Care Insurance</td>
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<tr>
<td>MoHW</td>
<td>Ministry of Health and Welfare</td>
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<tr>
<td>NHI</td>
<td>National Health Insurance</td>
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<td>NHIS</td>
<td>National Health Insurance Service</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OOP</td>
<td>Out-of-Pocket</td>
</tr>
<tr>
<td>P4P</td>
<td>Pay for Performance</td>
</tr>
<tr>
<td>TFR</td>
<td>Total Fertility Rate</td>
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<td>VHI</td>
<td>Voluntary Health Insurance</td>
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Preface to the second round of the Universal Health Coverage Study Series

All over the world countries are implementing pro-poor reforms to advance universal health coverage. The widespread trend to expand coverage resulted in the inclusion of the “achieving universal health coverage by 2030” target in the Sustainable Development Agenda. Progress is monitored through indicators measuring gains in financial risk protection and in access to quality essential health-care services.

The Universal Health Coverage (UHC) Studies Series was launched in 2013 with the objective of sharing knowledge regarding pro-poor reforms advancing UHC in developing countries. The series is aimed at policy-makers and UHC reform implementers in low- and middle-income countries. The Series recognizes that there are many policy paths to achieve UHC and therefore does not endorse a specific path or model.

The Series consists of country case studies and technical papers. The case studies employ a standardized approach aimed at understanding the tools – policies, instruments and institutions - used to expand health coverage across three dimensions: population, health services and affordability. The approach relies on a protocol involving around 300 questions structured to provide a detailed understanding of how countries are implementing UHC reforms in the following areas:

- **Progressive Universalism**: expanding population coverage while ensuring that the poor and vulnerable are not left behind;
- **Strategic Purchasing**: expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers;
- **Raising revenues** to finance health care in fiscally sustainable ways;
- **Improving the availability and quality of health-care providers**; and,
- **Strengthening accountability** to ensure the fulfillment of promises made between citizens, governments and health institutions.

By 2017, the Series had published 24 country case studies and conducted a systematic literature review on the impact of UHC reforms. In 2018 the Series will publish an additional 15 case studies. A book analyzing and comparing the initial 24 country case studies is also available: *Going Universal: How 24 Developing Countries are Implementing UHC Reforms from the Bottom Up*. Links to the Series and the book are included below.

Daniel Cotlear, D. Phil.
Manager and Editor
Universal Health Coverage Study Series

Links:
Acknowledgements

Very helpful comments by Daniel Cotlear and Sanggon Na and capable research assistance by Eunkyoung Kim are gratefully acknowledged.
About the Author

Soonman KWON is Professor and Former Dean of the School of Public Health, Seoul National University, South Korea and held visiting positions at Harvard School of Public Health, London School of Economics, University of Toronto, and Peking University. He was the Chief of Health Sector Group in the Asian Development Bank (ADB). He has been a member of advisory committees of WHO Alliance for Health Policy and Systems Research, GAVI (Global Alliance for Vaccines and Immunization), and WHO Centre for Health Development. He is the president of the Korean Health Economic Association, and was the president of the Korean Association of Schools of Public Health in 2013-14 and the Korean Gerontological Society in 2015-16. He is currently the Associate Editor of *Health Policy* (Elsevier) and was the editor of the *Korean Journal of Public Health* in 2007-09 and *Korean Journal of Health Economics* in 2014-15. He has been on the editorial boards of *Social Science and Medicine, Health Economics Policy and Law, BMC Health Services Research*, and *Ageing Research Reviews*. With WHO, World Bank, GIZ, and ADB, he has worked on the health system and financing in Algeria, Bhutan, Cambodia, China, Egypt, Ethiopia, Fiji, Ghana, India, Indonesia, Kazakhstan, Kenya, Lao PDR, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Uganda, and Vietnam. He holds PhD in health economics from the Wharton School of the University of Pennsylvania (1993) and taught at the University of Southern California School of Public Policy.
Executive Summary

The Republic of Korea achieved universal health coverage in 1989, 12 years after the introduction of mandatory health insurance for employees in large corporations. Political legitimization of the authoritarian regime and rapid economic growth contributed to the rapid extension of health coverage. The health insurance contribution is based on the wage of formal sector workers and, for the self-employed, on assessed income, including assets.

Most health care providers are private. In 2000, all insurance funds were merged into a single insurer, which improved the efficiency of risk pooling and equity in contribution payments. The single insurer system also provided the national health insurance system with the opportunity to strengthen its purchasing function. This included review and assessment of service provision and claims, as well as the management of enrollees and service providers, based on an effective information system.

Nevertheless, the Korean health system faces challenges. Policy priority was given to population coverage, with low contributions and a limited benefits package, which resulted in insufficient financial protection of the insured. The rapid increase in private-sector providers has helped the supply readiness for universal health care, but has also engendered challenges to financial sustainability due to profit-seeking behavior and the overprovision of care, which was further exacerbated by fee-for-service payments.

Korea’s health system also needs to be further reoriented to respond to the rapid aging of the population, and to the introduction in 2008 of a new public insurance scheme for long-term care.
1. Political and Socioeconomic Context

Political Environment

The Republic of Korea has a presidential system. The military and authoritarian regime of the 1960s and 1970s achieved rapid economic growth based on a series of five-year economic development plans. Under a strong presidency, mayors and governors of local governments were appointed by the president until the mid-1990s. The launch of a civilian government contributed substantially to political decentralization through, for example, election, in 1995, of the heads of local governments and the members of local legislative bodies. The strong role of the central government has led to a health insurance system in which the Ministry of Health and Welfare has strong control over such factors as benefits, provider payments, and claims review.

Economic Development

Korea has achieved rapid economic growth. As of 2014, its gross domestic product (GDP) was US$1.4 trillion, and the nominal GDP per capita was US$27,971 (table 1). Since the economic crisis, which resulted in an International Monetary Fund rescue loan in 1997, Korea has adopted liberal economic policies with flexible labor market policies. In terms of the Gini coefficient estimated for all urban households, income inequality has worsened since the economic crisis. Nonetheless, the Gini coefficient of 0.310 in 2010 (compared to 0.302 in 2013), measured for disposable household income, was comparable to the average Gini coefficient of Organization for Economic Co-operation and Development (OECD) countries (0.313).

Table 1. Economic Indicators

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<tbody>
<tr>
<td>GDP (billions, US$)</td>
<td>63.8</td>
<td>263.8</td>
<td>533.4</td>
<td>844.9</td>
<td>1,014.9</td>
<td>1,410.4</td>
</tr>
<tr>
<td>GDP, PPP (billions, US$)</td>
<td>90.6</td>
<td>341.2</td>
<td>808.4</td>
<td>1,096.7</td>
<td>1,413.8</td>
<td>1,732.4</td>
</tr>
<tr>
<td>GDP per capita (US$)</td>
<td>1,674</td>
<td>6,153</td>
<td>11,347</td>
<td>17,551</td>
<td>20,540</td>
<td>27,971</td>
</tr>
<tr>
<td>GDP per capita, PPP (US$)</td>
<td>2,376</td>
<td>7,960</td>
<td>17,197</td>
<td>22,783</td>
<td>28,613</td>
<td>34,356</td>
</tr>
<tr>
<td>GDP annual growth rate (%)</td>
<td>-1.5</td>
<td>9.2</td>
<td>8.5</td>
<td>4.0</td>
<td>6.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Unemployment, total (% of labor force)</td>
<td>5.2</td>
<td>2.5</td>
<td>4.4</td>
<td>3.7</td>
<td>3.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Poverty rate (% below national poverty line)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>9.4</td>
<td>10.1</td>
<td>9.4</td>
</tr>
<tr>
<td>Income inequality (Gini coefficient)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.306b</td>
<td>0.310</td>
<td>0.302c</td>
</tr>
</tbody>
</table>


Note: a. Estimated based on gross income and excluding single-person households. b. As of 2006. c. As of 2013. PPP = purchasing power parity. — = not available.

Demographics and Key Health Indicators

The population of Korea was 50.4 million in 2014 (table 2). The total fertility rate (TFR) is one of the lowest in the world at 1.19 in 2013. Due to low fertility and increased life expectancy, the proportion of people aged 65 and older was 13 percent in 2014. With the most rapidly aging
populations in the world, Korea is expected to be the second-most-aged country after Japan by 2050. The age dependency ratio (for children and older people) was 37.0 in 2014, and the share of working-age population is expected to decrease after it reaches the peak of 37 million in 2016.

Table 2. Demographic Indicators

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</thead>
<tbody>
<tr>
<td>Total population (in millions)</td>
<td>38.1</td>
<td>42.9</td>
<td>45.1</td>
<td>47.0</td>
<td>48.1</td>
<td>49.4</td>
<td>50.4</td>
</tr>
<tr>
<td>Population aged 65 and older (% of total)</td>
<td>3.9</td>
<td>5.0</td>
<td>5.9</td>
<td>7.3</td>
<td>9.3</td>
<td>11.1</td>
<td>13.0</td>
</tr>
<tr>
<td>Fertility rate, total (births per woman)</td>
<td>2.83</td>
<td>1.59</td>
<td>1.65</td>
<td>1.47</td>
<td>1.08</td>
<td>1.23</td>
<td>1.19</td>
</tr>
<tr>
<td>Birth rate, crude (per 1,000 people)</td>
<td>22.7</td>
<td>15.4</td>
<td>16.0</td>
<td>13.4</td>
<td>8.9</td>
<td>9.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Death rate, crude (per 1,000 people)</td>
<td>6.3</td>
<td>5.8</td>
<td>5.4</td>
<td>5.2</td>
<td>5.0</td>
<td>5.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Old-age dependency ratio (% of working population)</td>
<td>6.2</td>
<td>7.2</td>
<td>8.3</td>
<td>10.2</td>
<td>12.7</td>
<td>15.3</td>
<td>17.4</td>
</tr>
<tr>
<td>Distribution of population (urban, %)</td>
<td>57</td>
<td>74</td>
<td>78</td>
<td>80</td>
<td>81</td>
<td>83</td>
<td>82</td>
</tr>
</tbody>
</table>

Note: a. As of 2013.

Table 3 shows selected economic and health indicators for 1977 (when social health insurance was introduced), 1989 (when universal coverage of the population was achieved), and 2000 (when multiple insurance funds were merged into a single insurer system), along with data for the most recent year, 2014.

Table 3. Economic and Health Indicators in Korea, 1977–2014

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</thead>
<tbody>
<tr>
<td>GDP per capita (in US$)</td>
<td>1,042</td>
<td>5,430</td>
<td>11,347</td>
<td>27,071</td>
</tr>
<tr>
<td>Life expectancy</td>
<td>64.8</td>
<td>71</td>
<td>76</td>
<td>81.8 (2013)</td>
</tr>
<tr>
<td>Mortality (per 100,000 persons)</td>
<td>690</td>
<td>542.3</td>
<td>—</td>
<td>527.3</td>
</tr>
<tr>
<td>Infant mortality (per 1,000 births)</td>
<td>38 (average over 1970–75)</td>
<td>12</td>
<td>5.8 (average over 1999–2002)</td>
<td>3 (2013)</td>
</tr>
<tr>
<td>Number of physicians (per 10,000 persons)</td>
<td>5 (1981)</td>
<td>8</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Number of beds (per 10,000 persons)</td>
<td>17 (1981)</td>
<td>23</td>
<td>47</td>
<td>110</td>
</tr>
<tr>
<td>Number of physician visits per capita</td>
<td>3.7</td>
<td>6.2</td>
<td>10.6 (2002)</td>
<td>15</td>
</tr>
<tr>
<td>Number of admissions per capita</td>
<td>—</td>
<td>0.06 (1990)</td>
<td>—</td>
<td>0.12 (2013)</td>
</tr>
<tr>
<td>Number of hospital days per admission</td>
<td>12</td>
<td>13.6</td>
<td>13.8 (2002)</td>
<td>16.5 (2013)</td>
</tr>
</tbody>
</table>

Note: 1977 marked the introduction of health insurance; 1989 marked the onset of universal coverage.
2. Expanding Population Coverage

Historical Development

Korea introduced mandatory (social) health insurance (also called National Health Insurance, NHI) in 1977, and incrementally extended population coverage. In 1977, NHI was first applied to the poor and workers in corporations with more than 500 employees. Two years later, public employees, school teachers, and workers in firms with more than 300 employees joined the NHI, followed by incremental extensions to employees of smaller corporations. Several pilot programs were implemented for the self-employed (mainly farmers) in four rural areas and one city. In 1988, all rural self-employed were covered by NHI, and a year later, universal coverage was achieved when the self-employed in urban areas received coverage.

The political and economic environments in Korea contributed to the rapid extension of NHI coverage. The authoritarian political regime (military government) had a strong political will to use NHI and other welfare programs for its political legitimization and was able to enforce mandatory enrolment. Rapid economic growth in the 1970s and 1980s, thanks to export-driven economic policy and a series of development plans, led to a rise in the capacity of the government and people to pay for coverage, to increased employment in the formal sector, and to a reduction in the size of the informal sector that needed to be subsidized.

Despite the opposition of the medical profession, the government implemented a tight fee schedule, which was set much lower than the customary charge, and providers were not allowed to charge more than that fee (that is, no balance billing). The Ministry of Finance approved fee adjustments, like public utilities. Tight fee scheduling lowered the financial barrier to medical care, which was viewed as attractive to the self-employed and which contributed to their enrolment. In Korea’s private-sector-dominated health care system, where private hospitals were dominant and high user fees were charged even in public hospitals, health insurance as a means of reducing access barriers was perceived to be valuable. As a result, the self-employed asked the government to extend health insurance to them, and universal health care was included in the presidential election campaign in 1987. As health insurance was expanded, the increase in demand for health care was met by further increases in private sector providers.

From the beginning, multiple health insurance funds were organized for different population groups, and the government separated health insurance for employees (based on workplaces) from health insurance for the self-employed (based on residential areas). The rationale for the separation was that it was more difficult to assess the income of the self-employed when the government wanted to charge their premium contributions based on the capacity to pay. The health insurance system adopted family-based memberships by requiring all dependents to be covered when the family head was insured (unless the income of the dependent was greater than a threshold level).

The contribution of the self-employed to health insurance was based on the number of dependents, while the contribution of employee funds was not. Because the income of employees was easier to assess, they were concerned that they were paying higher contributions than the self-employed,
but the coverage of dependents with no additional contribution seemed to mitigate their complaints. Family-based membership was effective in rapidly extending coverage. The good Resident Registration System of Korea, which has additional information on residence and family relationships beyond the usual information maintained by the Civil Registration and Vital Statistics, including unique personal identification numbers, made family-based membership possible.

All insurance funds provided the same statutory benefits package and applied an identical fee schedule to health care providers. NHI adopted a contributions system based on capacity to pay not only for formal sector employees, but also for the self-employed. However, the ability to accurately assess the capacity of the self-employed to pay is controversial. When the concept of free health care was absent even in public hospitals, insurance contribution based on the capacity to pay, instead of free health insurance membership, seemed to be well accepted in Korea. As mentioned, the contribution to employee health insurance is based on wage income, but the contribution of the self-employed is based on income and property, such as a house and motor vehicle. Each insurance fund sets its contribution rate within a range determined annually by the Ministry of Health and Welfare.

Because the government was worried that providers did not want to join the health insurance program due to its tight fee scheduling, it mandated all medical providers to treat insurance patients. In other words, the relation between the health insurance system and health care providers is based on a mandate rather than contracting. Although providers were against the mandate, the government was able to enforce it. This regulation, applied to all private and public providers, was effective in ensuring the supply-side readiness for universal health coverage, because public providers accounted for only a small portion of health care delivery in Korea.

**Coverage of the Informal Sector**

When health insurance was extended to the self-employed, they protested to the government that it was unfair that they had to pay the full contribution while payments of the (better-off) formal sector workers were subsidized by their employers. The self-employed in rural areas (farmers), who were regarded as disadvantaged compared to industrial workers, particularly received societal support. As a result, the government provided a partial subsidy for the self-employed, equal to half of their contribution, thus providing an incentive for the self-employed to join NHI. In a decentralized system with multiple insurance funds (or so-called health insurance societies), each insurance society was active in social marketing to increase enrolment and promote the value of health insurance. The use of Civil Registration and Vital Statistics and national identification systems for health coverage (mostly regarding enrolment) in terms of integration with the health information system also contributed to the extension of population coverage in the informal sector.

Although the government has increased the subsidy to self-employed insurance funds over the years, health expenditure increased even faster, thereby reducing the proportion of the government subsidy in the total revenue of the self-employed insurance. In 1988, the proportion of the government subsidy in the total revenue of the self-employed funds was 44.1 percent, which had decreased to 25.6 percent in 1999. A decrease in the role of government subsidy in health insurance
was followed by an increase in contribution for the self-employed. The subsidy for self-employed health insurance at that stage (that is, 10 years after achieving universal health care) caused concern, because some of the self-employed had a high capacity to pay.

Because the ability of farmers to pay their contribution was limited, many insurance funds for the self-employed, especially those in rural areas, suffered chronic fiscal deficits. Facing the fiscal instability of self-employed funds, the government introduced a risk-sharing (or revenue-sharing) mechanism of cross-subsidy among insurance funds, based on catastrophic medical expense and demographic structure, such as the proportion of older people in each fund. The revenue sharing mechanism benefited insurance funds for the self-employed, particularly those in rural areas, although it still did not fully solve their financial instability. As of 1998, the relative share of the revenue from the risk sharing program in the total revenue of the self-employed funds was 10.9 percent, down from 13.6 percent in 1997.²

A debate over the organizational (or risk pooling) structure of NHI began when NHI was extended to the self-employed. The key controversy was whether the new self-employed health insurance should adopt the existing structure of multiple insurance funds, or a new single insurer system should be launched by enrolling the self-employed and employees in a single insurance fund. Because there was nationwide risk pooling, the single insurer system would potentially benefit from both a rapid extension of health insurance to the self-employed and greater fiscal sustainability. Compared with employees in the formal sector, however, it was expected to be more difficult to assess income and collect contributions from the self-employed, which might mean an unfair financial burden on employees if both groups were in the same risk pool.

Proponents of the merger maintained that the big surplus of employee health insurance, due to many young workers, could be used to extend health insurance to the self-employed. Politicians, particularly those supported by rural residents, preferred the pooling of employees and the self-employed in the single fund. However, the Ministry of Finance preferred the system of multiple insurance funds because it worried that a single insurer system would require an increasingly higher budget subsidy, potentially leading to a fiscal burden for the government.

Structure of the Health Insurance System

After NHI achieved universal coverage in 1989, the NHI system consisted of multiple not-for-profit insurance funds (health insurance societies) until they were merged into a single insurer in July 2000. A change in government to a new, progressive government, and the Asian financial crisis, contributed to this major policy change.³ Although the NHI system had multiple insurance societies, government (that is, the Ministry of Health and Welfare) tightly regulated their operations. Insurance funds did not compete to enroll insured, because each of them covered a well-defined population group based either on workplace or residential area. Although health insurance funds reviewed the claims submitted by providers, they did not selectively contract with providers. In that sense, NHI did not actively exercise its purchasing power with respect to providers. The public did not support the idea of selective contracting, because they were worried it would result in the nonparticipation of some leading private hospitals in the health insurance system.
Until 2000, NHI consisted of three different types of funds (table 4): health insurance for employees and their dependents (36 percent of the population); health insurance for school and government employees and their dependents (10.4 percent); and health insurance for the self-employed (50.1 percent), which was also called regional health insurance because it was organized based on the regions where the self-employed lived (but regional governments were not involved in health insurance). As of 1998, the Medical Aid program for the poor, which was fully subsidized by the government, covered the remaining 3.5 percent of the population. Also, as of 1998, NHI had 227 insurance funds for the self-employed (92 in rural areas and 135 in urban areas), 142 funds for employees, and a single (nationwide) fund for school and government employees. The Medical Aid was part of the public assistance program and its population coverage has been controversial. The government wants to keep the population coverage of the public assistance program as small as possible, and those just above the poverty line who do not benefit from Medical Aid often bear a financial burden.

### Table 4. Number of the Insured for Three Types of Health Insurance Funds (thousands of people)

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<tbody>
<tr>
<td>Total</td>
<td>33,196</td>
<td>44,168</td>
<td>44,110</td>
<td>45,429</td>
<td>46,821</td>
<td>47,466</td>
</tr>
<tr>
<td>Health insurance</td>
<td>28,906</td>
<td>39,922</td>
<td>40,180</td>
<td>44,016</td>
<td>45,184</td>
<td>45,896</td>
</tr>
<tr>
<td>Employee</td>
<td>22,129</td>
<td>20,982</td>
<td>20,759</td>
<td>21,559</td>
<td>21,717</td>
<td>22,404</td>
</tr>
<tr>
<td>Self-employed</td>
<td>6,777</td>
<td>18,940</td>
<td>19,421</td>
<td>22,457</td>
<td>23,467</td>
<td>23,492</td>
</tr>
<tr>
<td>Medical Aid</td>
<td>4,290</td>
<td>4,246</td>
<td>3,930</td>
<td>1,413</td>
<td>1,637</td>
<td>1,570</td>
</tr>
</tbody>
</table>

*Source: National Health Insurance Corporation, Health Insurance Statistics, various years.*

### Issues of Access

There were differences in medical care utilization across the three types of insurance funds. Utilization was highest in school and public employee funds and lowest in self-employed funds, due to the difference in age structure. That is, there was a larger proportion of older people among the dependents of the school and public employee funds. The lower income of farmers and the regional maldistribution of health care providers also contributed to the lower health care utilization in the self-employed funds in rural areas.

Over time, access to medical care in rural areas has improved due to several policy interventions. For example, the government provided favorable loans for private hospitals to open in rural areas. In Korea, all men are required to serve in the military for two to three years, but graduates of medical school are exempted from the mandatory military service if they work in public health centers in rural areas. In very remote areas, the government allows nurse practitioners to provide primary health care services after basic medical training. In those public health posts, nurse practitioners are allowed to prescribe (and dispense) essential medicines for cases that are not serious.
Access to health care in Korea has improved greatly due to universal health coverage, economic growth, rapid urbanization, and expansion of health care providers to nonurban areas. However, despite universal coverage, the cost coverage and benefits coverage have been a concern. Nontrivial out-of-pocket costs at point of service, including full payment for uninsured services, along with demand inducement by private providers, seem to have resulted in inequity in access to new technology and other services.

3. Financial Resources and Pooling

Major Sources of Financing

Funding Mix

Contributions to National Health Insurance account for the majority of health expenditure in Korea. The share of social health insurance contributions in total health expenditure has increased from 30.3 percent in 1990 to 42.8 percent in 2013 (table 5). The role of government budget allocation in total health expenditure is relatively small—only 11.5 percent in 2013. In the 2000s, then-progressive governments expanded the capacity of public hospitals, leading to a slight increase in the share of tax in national health expenditure. Although NHI has universal coverage, the share of out-of-pocket (OOP) payments in total health expenditure is still substantial.

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<tbody>
<tr>
<td>Social Health Insurance</td>
<td>30.3</td>
<td>29.8</td>
<td>37.8</td>
<td>40.7</td>
<td>43</td>
<td>42.8</td>
</tr>
<tr>
<td>Tax</td>
<td>8.4</td>
<td>7.7</td>
<td>11.1</td>
<td>12.1</td>
<td>13.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Out-of-Pocket Payments</td>
<td>56.6</td>
<td>53.1</td>
<td>41.1</td>
<td>37.9</td>
<td>34.4</td>
<td>35.2</td>
</tr>
<tr>
<td>Private Health Insurance</td>
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<td>4.9</td>
<td>3.9</td>
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<td>6.2</td>
</tr>
<tr>
<td>Other Private</td>
<td>3.5</td>
<td>6.5</td>
<td>5</td>
<td>5.3</td>
<td>3.9</td>
<td>4.3</td>
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</table>

*Source: Korean Statistical Information Service 2015.*

The central and local governments fully subsidize the contribution of the 3 to 4 percent of the population who are poor, and a significant portion of the tobacco tax is channeled to the NHI fund. But the government budget accounted for only 12.3 percent of NHI revenue in 2013, down from 22 percent in 2001 (table 6). The NHI contribution for employees is based on payroll, currently about 6 percent of wages, which is shared equally by the employer and employee. The NHI system determines the contribution rate annually, based on its fiscal condition during the previous year.
Most medical care services, except very new technology, are included in the benefits package, but with relatively high cost sharing. OOP payments, consisting of a copayment for insured services (services in the benefits package) and full payment for uninsured services (services not in the benefits package), accounts for about 35 percent of total health expenditure. Under NHI, the copayment for insured inpatient care services is 20 percent. Depending on the level of providers, differential cost sharing of 30 percent, 40 percent, 50 percent, or 60 percent is applied for outpatient care, with lower copayments for primary care and higher copayments for tertiary (specialized) care. Indeed, the increase in the use of tertiary care hospitals, even for minor cases, is a big concern in Korea. Due to full payment for uninsured services, actual OOP payment at point of service is greater than the cost sharing under the NHI system.

Health insurance provides a protection mechanism such as reduced cost sharing for older persons, children under six years of age, and patients with chronic conditions (for example, 10 percent cost sharing for patients with renal dialysis) or catastrophic conditions. In the Medical Aid program for the poor, there is no cost sharing, so there are no copayments for services in the benefits package. The government has increased the benefits package to reduce the financial burden of patients; most notably, in the 2000s (an era of progressive government), it reduced the coinsurance rate from 20 percent to 5 percent for patients with catastrophic illnesses such as cancer. The policy of reducing cost sharing has improved the equity in health care utilization of cancer patients; that is, the poor experienced a larger increase in health care utilization than the better off did.5

There are also ceilings on (cumulative) OOP payments, beyond which patients are exempted from copayment, for every six months. Initially, NHI implemented a uniform ceiling, which was later changed to three levels of ceilings depending on income level. Starting in 2014, the ceiling was further segmented into seven levels. Although the ceiling on cumulative OOP payments improves financial protection for patients, it applies only to the copayment for insured services. Consequently, financial burden due to the OOP payment for uninsured services is still high, especially for the poor.

**Health Expenditure**

Health expenditure has rapidly increased. Total health expenditure as a percentage of GDP doubled over a period of 18 years from 3.7 percent in 1995 to 7.8 percent in 2013 (figure 1). During the last 10 years, the mean annual real growth rate of health expenditure has been greater than that of GDP. Although health expenditure as a percentage of GDP in Korea is still lower than in other

<table>
<thead>
<tr>
<th><strong>Health Insurance Contribution (%)</strong></th>
<th>2001</th>
<th>2003</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tr>
<td>Health Insurance Contribution (%)</td>
<td>74.2</td>
<td>78.7</td>
<td>80.3</td>
<td>83.4</td>
<td>83.1</td>
<td>84.9</td>
<td>85.7</td>
<td>82.7</td>
</tr>
<tr>
<td>Government Subsidy (%)</td>
<td>22.0</td>
<td>19.6</td>
<td>17.5</td>
<td>14.1</td>
<td>14.9</td>
<td>13.0</td>
<td>12.6</td>
<td>12.3</td>
</tr>
<tr>
<td>Others (%)</td>
<td>3.7</td>
<td>1.7</td>
<td>2.2</td>
<td>2.5</td>
<td>2.1</td>
<td>2.1</td>
<td>1.7</td>
<td>5.0</td>
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<tr>
<td>Total (%)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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</table>

*Source: National Health Insurance Corporation 2015.*
OECD countries (figure 2), Korea has experienced one of the highest rates of increase in health expenditure among OECD countries.

With stagnant economic growth and a rapidly aging population, rising health expenditure is a big concern for the long-term financial sustainability of NHI. For example, the proportion of health expenditure for the elderly in total health expenditure increased from 19.3 percent in 2002 to 34.4 percent in 2012. A rapid increase in health expenditure is also a challenge for the financial protection of patients, especially because OOP payments account for a substantial share of total health expenditure.

Figure 1. Total Health Expenditure, Korea

Source: OECD 2014.
The Role and Instruments of Private Financing

*Out-of-Pocket Payment*

Payment for services not included in the NHI benefits package is a driving factor for high OOP expenditures. Most such payments are for new technology, most of which is not justified in terms of cost-effectiveness but for which providers induce demand. Because the fees for insured services are tightly regulated by NHI, the margin from those services in the benefits package is low. Health care providers have strong incentives to provide more uninsured services because they can set price without regulation and, consequently, can obtain high profits from them. The health insurance system does not have full information on them because providers report and file claims only on the services NHI reimburses, that is, the services in the benefits package. The prevalence of new expensive technology is also a barrier to the transition to case-based payment, such as a diagnosis-related group system.

As the share of NHI in total health expenditure has increased, the share of OOP payment has decreased, from 55.7 percent in 1990 to 35.2 percent in 2011. Although the share of OOP payment in total health expenditure has steadily decreased, it is still higher than in other OECD countries, and has caused concern about insufficient financial protection (figure 3). High OOP payments result in high incidence of catastrophic health care payments and impoverishment, especially for the poor.6
Voluntary Private Health Insurance

The role of voluntary (private) health insurance (VHI) in health care financing has been increasing, but its share of total health expenditure is still only about 5 percent, which is likely an underestimate. It is difficult to obtain accurate data on VHI because most VHI products are sold with a package of life or other types of insurance. At the same time, the reimbursement of VHI is usually made to the enrollees (for example, a lump-sum amount based on diagnosis or number of inpatient days) rather than to providers. Because the OOP payment in total health expenditure in Korea is high, more than 70 percent of the population is enrolled in VHI to pay for OOP expenses. Jeon and Kwon (2012) found that the experience of (high) health care expenditure results in the additional purchase of private health insurance the next year.

VHI in Korea has a negative effect on NHI financing because those enrolled in VHI tend to increase health care utilization. For example, the probability of any health care utilization, both outpatient and inpatient, is higher for the people who have VHI. A regulation allows VHI to cover up to only 80 percent of OOP payments (of NHI) to control moral hazard. There is concern that VHI engages in cream skimming, that is, it tends to enroll only low-risk people. Guaranteed enrolment and a ban on cream skimming by VHI may be needed to protect consumers, especially the high-risk group.

The role of VHI has been controversial. The Ministry of Health and Welfare (MoHW) and the National Health Insurance Service are concerned about the moral hazard effect of VHI and the

Source: OECD 2014.
resultant financial burden on NHI because VHI provides coverage for copayments of NHI, as well as OOP payments for uninsured services. The Ministry of Finance, however, views VHI from an industrial policy perspective, and sees its potential role in the reduction of government funding in health care and in the development of the health care industry. Advocates of this industrial policy maintain that VHI can increase the demand for technological innovation in the health sector when new technology is covered by VHI. The VHI industry has requested that NHI share information on enrollees and providers so that they can set the premium more accurately and control provider behavior more effectively.

Resource Pooling

Revenue collection, pooling, and purchasing functions are integrated by the single health insurer in Korea. Before the merger of all health insurance societies into a single insurer in 2000, the NHI system had three types of health insurance schemes: government employees and teachers and their dependents; industrial workers and their dependents; and the self-employed and employees in small firms with fewer than five employees. NHI consisted of more than 350 quasi-public insurance societies, which were subject to strict regulation by the MoHW. There was no competition among insurance funds, and beneficiaries were assigned to insurance societies based on employment (employees) or residential area (self-employed). Even before the merger in 2000, the Korean NHI functioned similarly to a single purchasing agency because all funds had identical statutory benefits coverage, health providers were paid under a uniform fee schedule, and all claims were reviewed by a central agency.9

By merging all health insurance societies into a single fund, health care financing reform in 2000 aimed to increase the efficiency of risk pooling, improve equity in contribution, and minimize administrative costs.10 Before the merger, many health insurance funds were too small to efficiently pool the financial risks. Many small insurance funds could not utilize economy of scale in management, and the proponents of the merger maintained that the merger would save NHI system administrative costs. Once universal coverage and improved access to care (with reduced inequity in access to care) were achieved, people began to pay attention to the inequity of contributions and the inefficiency of the fragmented health insurance system.

Before the merger, differences in the contribution rates across insurance societies, despite identical statutory benefits, raised concerns about the equity of NHI contributions. The contributions of members of insurance societies in poor or rural areas constituted a greater proportion of their income or capacity to pay than those of members in wealthy areas. Before the merger, a risk pooling and risk sharing mechanisms allowed insurance societies with a higher proportion of older people and a greater burden of catastrophic expenditure to be subsidized by others. However, many insurance societies for the self-employed in poor or rural areas continued to be fiscally insolvent due to systemic problems. As rural areas experienced a decrease in population size but an increase in the proportion of older people, health insurance funds in those regions faced rising health expenditure, while their members’ ability to pay was low. There was growing concern that gaps in the fiscal status between employee and the self-employed funds and between urban and rural funds threatened the social solidarity and fiscal sustainability of the NHI system.
Before the merger, NHI used different methods of setting the contributions for the employee and the self-employed funds. The definition of earnings on which contributions were based also differed across employee insurance funds. For instance, the contribution base in some employee funds included base salary only, while others considered total compensation. Differences in the method of setting contributions, despite identical benefits packages, caused horizontal inequity across insurance funds. In other words, the contributions of people with the same ability to pay were different, depending on which insurance society they were (mandatorily) enrolled in.

In the system of pluralistic insurance funds, decentralized decision making had the potential to better meet the health care needs of members. However, there was rarely self-governance of insurance funds in Korea. For example, the ruling political party and the MoHW had considerable influence on the appointment of the CEOs of insurance funds. The key role played by the government (MoHW) in major decisions on health insurance, such as on contributions, benefits, and provider payments, contributed to the equity of the NHI system, but reduced the opportunity for the insured to participate in the decision making of their insurance funds. However, the merger of more than 300 insurance funds into a single pool fund would be very difficult (if not impossible) unless they had the identical benefits packages and provider payments as before the merger.

The new government, with a progressive president, opened a window of opportunity for a major policy reform of merging all insurance funds into one in 2000. Progressive civic groups participated in the policy process and supported the reform. Right after the economic crisis that caused huge layoffs of formal sector workers, people seemed to accept that the unified NHI would improve solidarity and strengthen the safety net in an era of flexible labor markets. Labor unions in large corporations were worried that the merger would raise their contributions, because their income was easier to assess than the income of the self-employed. Nonetheless, the labor unions supported the financing reform as a way to improve the safety net following the layoff. The merger also gave the new, big insurers more resources and opportunity to strengthen their capacity for purchasing health care. New governance and policy making with the tripartite committee of public interests, providers, and consumers was also introduced (described in Section VI on governance and accountability) as a way to improve the financial sustainability and accountability in NHI decision making.

4. Strategic Purchasing

Purchasing Agency

Although the Korean NHI system has a single fund, it has two insurance agencies. The National Health Insurance Service (NHIS), previously called the National Health Insurance Corporation, is responsible for managing eligibility of the insured and health insurance benefits, including prevention and screening programs; collecting contributions; fund management; and reimbursement to providers. NHIS manages both health insurance and long-term care insurance in separate funds.
The Health Insurance Review and Assessment Service (HIRA) is responsible for claims review and assessment of the appropriateness of health care provided (by comparing with guidelines or clinical practice of similar providers), and develops standards for benefits. Although reimbursements to providers are paid by NHIS, HIRA plays an important role in health care purchasing through claims review and quality monitoring, designing the guidelines and criteria for reimbursement to providers, costing for the payment system, listing and classification of medical procedures, and the profiling of providers and high-cost technology equipment.

Technical capacity of both NHIS and HIRA is relatively high in terms of fund management, purchasing, and monitoring and evaluation. Both NHIS and HIRA have their own research institutes that perform actuarial studies, analyze NHI data for monitoring and evaluation, and disseminate evidence, all of which have been crucial inputs to health insurance policy making.

The claims review function was centralized even before the health insurance funds were merged (in 2000), which contributed to the efficiency of the NHI claims review system. A uniform statutory benefits package and a uniform fee schedule for providers across multiple funds made possible the centralization of the review function, even in the system of multiple health insurance funds. When all insurance funds were merged into a single fund in 2000, HIRA was established as an independent agency, by expanding the former centralized review department, to specialize in claims review and assessment of quality of care. Medical providers supported the claims review agency independently of NHIS because they thought claims should be reviewed on the basis of medical appropriateness rather than financial concerns of the insurer.

With respect to governance, the NHIS’s board of directors consists of 16 members: one president, 14 directors, and one auditor. The president, auditor, and five directors work full time. The president of the NHIS is appointed by the President of the Republic of Korea, upon recommendation of the Minister of Health and Welfare. Full-time directors are appointed by the NHIS president. NHIS has six regional offices and 178 branch offices.

Benefits Package

NHI has a well-defined benefits package, which is based mainly on individual services rather than on diseases (medical conditions). The copayment is 20 percent for inpatient care but varies from 30 to 60 percent for outpatient care, depending on the level of provider (physician clinics to tertiary care hospitals), with exemptions, discounts, and ceilings that take into account particular patient characteristics, such as income, demographics, and medical conditions. Economic evaluation, for example, cost effectiveness, along with recommendations by technical committees in the HIRA are important inputs to decision making on benefits.

In addition to curative services, such as diagnosis, treatment, traditional medical care, emergency care, pharmaceuticals, and dental care, the NHI benefits package includes biannual health checkups, including cancer screening for those over 40 years of age. Since it is a single-payer system, all insured have access to an identical benefits package. Cash benefits are available for
limited purposes such as maternity benefits and funeral benefits. The public health service is tax-funded and provided by public health centers funded by local governments. To receive a flu shot, for example, people can choose between physician clinics with a copayment and public health centers, which are usually free or have a lower copayment, depending on the policy of the local government.

Before 2007, there were no explicit criteria for medicine benefits, and the price was determined using external reference pricing—that is, based on the price in high-income countries. A positive listing system for medicines based on economic evaluation was formally introduced in 2007. The criteria for the reimbursement decision include clinical benefits such as severity of disease, clinical effectiveness (compared to existing medicines), cost-effectiveness, budget impact based on target population, expected sales and substitution effect, and listing and price in other countries. Among the above-mentioned criteria, cost-effectiveness is crucial to the reimbursement decision.

Once a new medicine is proven to be cost-effective and included in the benefits package, the pharmaceutical manufacturer should negotiate its price with the NHIS. In the price negotiation, NHIS considers factors that include budget impact, the price in other OECD countries, and patent status. More importantly, NHIS considers the expected volume of utilization when it negotiates the price of new medicines (price-volume consideration). The price of generic medicines is set at a discounted percentage of the originator medicine.

Technical committees in the HIRA play an important role in the decision process for benefits. They submit recommendations to the Health Insurance Policy Deliberation Committee (HIPDC), which makes a final decision on the benefits. As a tripartite committee consisting of payers, providers, and public interest groups, HIPDC makes decisions on contribution, benefits, and payment (level) to providers. For decisions on certain technical issues, such as whether a given medicine with a small market share is included in the benefits package, HIPDC usually endorses the recommendation submitted by HIRA. For benefits decisions with potentially significant financial impacts, such as the coverage of dentures for older people, extra fees for specialists and private wards, HIPDC has lengthy discussions and often makes a final decision by vote.

**Payment System for Providers**

*Fee-for-Service Payment System*

Fee-for-service is applied for outpatient care and the majority of inpatient care. The fee-for-service system has led not only to an increase in the volume and intensity of services, but also to the provision of services with a greater margin, and even a distortion in the supply of medical specialties in the long run. For insured services, physicians are not allowed to charge more than the fee schedule set by NHI, that is, a policy of no balance billing. Because there is no price regulation of services not included in the benefits package, however, physicians charge high fees for uninsured services (so-called, extra billing) to compensate for the low profit from insured services.
Fee scheduling is based on a resource-based relative value system, which requires both a technical process and negotiations. Relative value scales are approved by the HIPDC, but the conversion factor (monetary value per relative value point) is annually negotiated between the NHIS and provider associations. When the negotiation fails, the HIPDC itself sets the rate of increase in the conversion factor for the next year. There is a perpetual tension between the government/NHIS and providers over the fee level.

Relative value considers physician workload (time and effort) and overhead cost. Measuring the relative value of medical services is delegated to provider associations, because it redistributes income among specialties. It is similar to a zero-sum game in that if a relative value of one service increases, then there should be a decrease in the relative value of other(s). As a result, the relative value scale is revised only periodically, although the conversion factor is negotiated annually. Since most providers are private, it is a challenge for NHI to obtain reliable data for the costing of medical services. Costing is often based on only a small number of sample hospitals, which causes controversy over its representativeness.

*Case Payment Based on Diagnosis-Related Groups (DRGs)*

Since July 2012, payments based on diagnosis-related groups have been applied to all providers for only seven minor surgeries: lens procedure, appendectomy, Caesarean section, tonsil and adenoid procedure, inguinal and femoral hernia procedure, anal procedure, and uterine and adnexa procedure for non-malignancy. Long-term care hospitals are reimbursed by a different payment system, which is a per-diem payment differentiated by 17 disease categories. As of 2013, DRG payments and per-diem payments have accounted for only 5 percent and 7.5 percent of total inpatient expenditure, respectively.

The DRG payment system has a long history in Korea; the government launched a DRG pilot program in February 1997 for voluntarily participating providers. The pilot program confirmed the positive impacts of DRG payment on the efficiency of the health system, such as reduction in length of stay, medical expense, average number of tests, and use of antibiotics without a negative effect on quality of care. However, strong opposition by providers has been a stumbling block to the extension of the DRG system beyond the seven minor surgeries.

A combination of per-diem, fee-for-service, and DRG payment, which is called a new case-based payment in Korea, and which is similar to the Diagnosis Procedure Combination payment in Japan, is applied for all cases in NHIS Ilsan Hospital and all local government hospitals. Using case-based payment, hospitals are still paid for more hospital days, albeit at a reduced rate (80 percent), and are reimbursed through fee-for-service for those services the fee of which is over US$100. Because it is not a pure prospective payment, the government thinks providers will be more willing to accept it, although it has a more limited impact on the efficiency of provider behavior than do DRG-based payments. Evaluation shows that case-based payment has failed to reduce the length of stay and health expenditure, and has increased the provision of services that are more expensive than the threshold level of US$100.
**Pay for Performance**

HIRA has implemented pay for performance (P4P) for selected areas for tertiary and general hospitals, beginning with acute myocardial infarction and Caesarean (C) section. Performance measures include volume, process (use of timely interventions and medications), and outcomes (mortality within 30 days) for acute myocardial infarction; and the difference between actual and risk-adjusted rates for C-section. The performance of 43 big general hospitals was first evaluated at the end of 2008, and they were divided into five groups (for relative ranking). Financial incentives, amounting to 1 percent of total health insurance reimbursement to a hospital, were paid to the highest-performing group at the end of 2009. A financial disincentive of -1 percent of insurance reimbursement was introduced in 2010 for hospitals with a score lower than the (absolute) threshold (the highest score of hospitals in the lowest-performing group in the previous year).16

In the future, P4P for hospitals need to be extended to other areas and smaller hospitals. The current P4P model focuses on clinical quality, but should be extended to other important performance measures, such as length of stay and intensity of care, among others. How to extend P4P beyond the inpatient sector to improve the quality of primary care is also a concern. P4P in Korea currently targets areas where it is easier to measure performance, rather than those areas that have the most serious quality issues. For example, it includes mainly big hospitals not because they have the most serious quality problems, but because their performance is easier to assess or they have fewer problems of performance reporting compared to small-scale providers.

**Information System for Purchasing**

The Health Insurance Review and Assessment Service (HIRA) has a state-of-the-art information and communications technology (ICT) system for such things as claims review, quality assessment and monitoring, provider profiling, and Drug Utilization Review. Through its website, HIRA disseminates to the public information on provider performance to help consumers choose providers rationally. ICT on health insurance, along with Civil Registration and Vital Statistics (CRVS) and a national identification management system, contributes to the efficiency and transparency of the health care system. An information system that is well integrated with CRVS has contributed to both the effective integration of enrolment management of NHIS, and claims review and quality assessment of HIRA. In addition, because the information on benefits utilization is linked with screening and checkup data, NHIS provides risk factor assessment for enrollees and recommends health management and promotion strategies, using “big data” analysis.

Ninety-nine percent of health care providers submit claims to HIRA through an Electronic Data Exchange system, and it takes a maximum of 15 days from claim submission to payment to providers.17 HIRA first electronically checks for errors, omissions, or miscalculations, and then an electronic review is performed based on indicators such as disease types and medications. Selected claims, such as outliers, are closely examined by review personnel, experts, or committee. HIRA reviews claims based on a detailed review of guidelines, such as how many times which services can be utilized and still be reimbursed by NHI. When the review is completed, HIRA sends the results to NHIS, which then pays providers if appropriate. If providers do not agree with the review...
decision, they can appeal to the HIRA, and if they do not accept the decision of the appeal, they can appeal further to the MoHW.

For reimbursement from NHIS, providers report to HIRA about facilities, personnel, and equipment. As a result, HIRA has information on health care providers such as license and employment status of professionals and health care institutions, including the number and types of beds, units, and diagnostic and therapeutic equipment (such as MRI, PET, and CT). HIRA can use the information on health care facilities in their review and assessment, and disclose provider performance to consumers. The Korea Pharmaceutical Information System (KPIS), for example, collects information on the production, supply, and distribution of medicines in Korea. All information on medicines from manufacturers, importers, wholesalers, and retailers is reported to the KPIS, which is linked to information from health care providers and pharmacists that is collected through claims data.

NHIS and HIRA manage sophisticated data systems, paradoxically because fee-for-service as the major payment system provides detailed information on the type and amount of services utilized. They need to implement an equally sophisticated review and assessment system, because fee-for-service causes distortions in provider behavior. With the aim of moving to prospective or case-based payment, the NHI data system needs to change its focus from claims review to assessment of quality and appropriateness. Another challenge is that NHIS and HIRA data have no information on services that are not included in the benefits package and that are, therefore, uninsured. Providers submit claims data to the insurer to obtain reimbursement, and hence do not disclose data on the type and cost of uninsured services.

5. Supply of Health Care

Primary Health Care and Gatekeeping

There are no official primary care practitioners in Korea, because most medical school graduates receive several years of additional training to become board-certified specialists, who then choose to become either clinic-or office-based practitioners or work in a hospital. Although trained as specialists, office-based physicians provide mainly curative primary care, with little involvement in prevention and promotion. The health care referral system and gatekeeping do not work because patients can visit outpatient clinics of big general hospitals even without a referral, as long as they pay a higher copayment.

Because most clinic-based physicians are specialists, and all general hospitals have huge outpatient clinics, they, as private entities, compete for patients rather than coordinate care. Competition even drives physician clinics to adopt more new technology-based care. However, large general or tertiary-care hospitals accounted for the largest proportion of patient cases and health expenditure, which has been ever increasing. As of 2014, big general or tertiary-level hospitals accounted for 40.1 percent of NHI expenditure. Fee-for-service payment also contributes to wasteful competition, because referring someone to another source of care means losing income.
With the lack of a primary care system or gatekeeping, patients choose any clinic-based practitioner, and freely select a hospital when they are referred. As a result, there is lack of continuity of care, and the patient-physician relationship is weak, which is a serious concern, especially in an era of a rapidly aging population, where a continuum of care should be provided to older people. Recently, the government proposed a program to strengthen primary care by incentivizing patients with chronic conditions, such as hypertension and diabetes, to register with a primary care provider. But implementation of the program has been delayed due to the opposition of providers.19

Role of the Private and Public Sectors in Health Care Provision

More than 90 percent of hospitals are private. However, public hospitals, most of whose funding comes from NHI reimbursement rather than from a budget, have fiscal autonomy. Most medical schools are also private. The same licensing, accreditation, and other regulatory standards are applied to public and private providers. They are also subject to the same fee schedule and payment system under NHI, which results in little difference in the behavior between public and private hospitals. For those services not included in the NHI benefits package, public hospitals tend to charge lower prices than private hospitals. At the primary care level, local governments have public health centers or subcenters, which provide prevention and health promotion services, including vaccinations.

In a private-sector-dominated health care system, public providers alone cannot meet the demand. From the beginning of the NHI, the government mandated private clinics and hospitals to participate in the NHI, and treated public and private hospitals equally (for example, they are subject to the same fee schedule and benefits coverage). In the early stage of the development of NHI, the legal mandate for private providers to participate in NHI contributed to the supply-side readiness for universal health care. HIRA uses the same criteria to review the quality of care of public and private providers. In addition, hospitals are encouraged to voluntarily obtain accreditation. Every year, each professional association, such as the Korean Medical Association, Korean Hospital Association, Korean Traditional Medical Association, and Korean Pharmaceutical Association, negotiates with NHIS separately to determine fee increases.

Relation between Providers and NHI

Because it is mandatory for health care providers to treat NHI patients, and there is no price competition among providers for the services covered by NHI, the role of contracting between NHI and providers is not crucial in Korea. When health insurance was introduced, the government set the fee schedule lower than customary charges. Consequently, the government was worried that if providers were allowed to opt out of the NHI, the majority would not contract with NHI, which would result in access problems for the insured. Now, Korea has a sufficient supply of providers, and the policy of no selective contracting by the insurer may limit the single purchaser insurance agency from exercising its bargaining power in selecting providers and maintaining quality of care.
Compulsory participation of providers in NHI has been a politically sensitive and controversial issue. Progressive civic groups are worried that the abolition of the mandate on provider participation in NHI will lead to the opting out of high-quality hospitals. However, under universal coverage, hospitals do not seem to have financial incentives to opt out. Furthermore, the Korean NHI has no restrictions on the provision of uninsured services during the same visit when insured services are provided. In return for mandatory participation, the government allowed hospitals to provide both insured and uninsured services during the same visit, so-called extra billing, where the patient bears the financial risk. Although extra billing increases the financial burden on patients, its ban may face tough opposition because some of those uninsured services can be medically necessary, and even some consumers prefer the freedom of choice and are willing to pay for uninsured services.

**Pharmaceuticals and Technology**

Pharmaceutical expenditure as a percentage of current health expenditure in Korea was 20.6 percent in 2013, higher than the average of OECD countries (figure 4). NHI has a positive listing system for medicines, where pharmaceutical manufacturers submit data on the economic evaluation for HIRA’s decision on benefits, followed by price negotiation between NHIS and the manufacturer. The free-trade agreement between Korea and the United States introduced an Independent Review Process to which a manufacturer can appeal following the benefits (listing) decision. Under the regime of tight regulation of pharmaceutical prices, the increase in pharmaceutical expenditure in Korea tends to be driven by the increase in utilization and use of expensive originator medicines instead of generics. Although it is too early to see the impact of the new free-trade agreement on pharmaceutical expenditure, it will limit HIRA’s decision-making capacity on the medicine benefits package and listing.

**Figure 4. Pharmaceutical Expenditure as a Percentage of Current Health Expenditure, OECD Countries, 2013**

Source: OECD 2015.
Before the introduction of the separation of medicine prescribing and dispensing in 2000, both physicians and pharmacists were allowed to prescribe and dispense medicines. Consequently, they had financial incentives to dispense more medicines, and those with higher margins, which resulted in high utilization of medicines, drug resistance, and low-quality of medication due to the lack of a checking mechanism between the prescriber and dispenser. Because the profit from medicines was substantial for physicians and hospitals, medical providers went on a series of nationwide strikes against the reform. The government responded by substantially increasing the fee for physician services.

Pharmacists can provide generic substitution of medications, but this is not commonly done, in part because of limited trust by the public and doctors. Another reason is a regulation requiring pharmacists to notify the prescribing practitioners of a generic substitution within one day. In addition, the price of generics in Korea is still high compared to prices in other OECD countries.

To increase generic substitution, HIRA introduced an incentive system in 2013 by which pharmacies are rewarded 30 percent of the savings from generic substitution. Prescription by generic names rather than brand names has not been implemented due to the opposition of physicians.

NHI monitors the prescription and utilization of pharmaceuticals in terms of quality and cost. HIRA assesses prescribing behavior, including of antibiotics for acute respiratory infection, injections, number of pills per prescription, and high-cost pharmaceuticals. For safety reasons, HIRA has implemented Drug Utilization Review, whereby information on the prescription and dispensing is centrally collected on a real-time basis, and feedback is immediately provided to prescribers and dispensing pharmacists on contraindications (such as age and pregnancy), duplication of drugs, and possible adverse interaction among drugs. But the Drug Utilization Review needs to be expanded from pharmacological checks to the cost-effectiveness of prescriptions.

**Long-Term Care**

Korea has the most rapidly aging population in the world (table 7). In addition to increased life expectancy, the decrease in the availability of traditional caregiving by family members as the result of the increased labor force participation of women and the change in the attitude toward caregiving for parents has rapidly increased the demand for long-term care for older persons. In 2008, Korea introduced long-term care (LTC) insurance, which is a contribution-based public insurance. LTC insurance (LTCI), which is separate from health insurance, has the potential benefit in “de-medicalizing” LTC and cost saving by reducing the role of medical care in LTC, because physicians would play a dominant role when health insurance provides coverage for LTC.
Table 7. Speed of Aging in Selected countries (Number of years for the share of population aged 65 and older to increase from 7 to 14 percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>115</td>
<td>1865–1980</td>
</tr>
<tr>
<td>Sweden</td>
<td>85</td>
<td>1890–1975</td>
</tr>
<tr>
<td>Australia</td>
<td>73</td>
<td>1938–2011</td>
</tr>
<tr>
<td>United States</td>
<td>69</td>
<td>1944–2013</td>
</tr>
<tr>
<td>Canada</td>
<td>65</td>
<td>1944–2009</td>
</tr>
<tr>
<td>Hungary</td>
<td>53</td>
<td>1941–94</td>
</tr>
<tr>
<td>Spain</td>
<td>45</td>
<td>1947–92</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>45</td>
<td>1930–75</td>
</tr>
<tr>
<td>Poland</td>
<td>45</td>
<td>1966–2011</td>
</tr>
<tr>
<td>Japan</td>
<td>26</td>
<td>1970–96</td>
</tr>
<tr>
<td>China</td>
<td>26</td>
<td>2000–26</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>24</td>
<td>2002–26</td>
</tr>
<tr>
<td>Thailand</td>
<td>22</td>
<td>2002–24</td>
</tr>
<tr>
<td>Brazil</td>
<td>21</td>
<td>2011–32</td>
</tr>
<tr>
<td>Singapore</td>
<td>19</td>
<td>2000–19</td>
</tr>
<tr>
<td>Korea, Rep.</td>
<td>18</td>
<td>2000–18</td>
</tr>
</tbody>
</table>

Source: Kinsella and He 2009.

LTCI is managed by NHIS to minimize the administrative cost of the social insurance system. The contribution is set as a fixed percentage of health insurance contribution. As of 2012, the contribution rate of LTCI was 6.55 percent of the NHI contribution. The copayment level is 20 percent for institutional care and 15 percent for home-based care to discourage institution-based care. The government subsidizes the contribution of the poor for LTCI, as it does for NHI.

All citizens who pay an NHI contribution should pay the LTCI contribution, and the benefits cover all LTC services for people aged 65 or older, but are limited to age-related debilitating conditions such as dementia, or cerebrovascular diseases, for those under 65. The probability of younger people getting LTCI benefits is low, because the benefits are limited only to age-related LTC needs. This was a political compromise because the government wants to make the younger pay contributions to improve financial sustainability by making them eligible for the benefits in principle, but for limited cases, in reality. However, younger people can indirectly benefit from LTCI because their burden of paying for the care of their parents is reduced due to the socialization of long-term care.

An eligibility test is applied to applicants through the needs assessment system, using a 52-item screening tool and an algorithm-based scoring system. Care is categorized into three groups based on need, from Level I (the highest) to Level III (the lowest). Eligibility for LTCI is, in principle, reevaluated approximately yearly. In July 2014, the eligibility threshold was decreased, and two more levels were added to the LTCI to cover more people in need. The number of eligible beneficiaries has more than doubled since the introduction of the LTCI, from about 146,000 in 2008 to about 370,700 (approximately 6 percent of people over age 65) in 2014.
LTCI benefits are mainly services in-kind to support activities of daily and social living at home or in LTC institutions. The maximum monthly benefits for LTC users depend on the type of benefits chosen (for example, institutional care or home care), and on the care needs level determined in the assessment process. The benefits package includes residential care or nursing home care provided by long-term care facilities (such as nursing homes and residential establishments), services in daycare centers, portable bath service, and home-based care provided by visiting long-term care providers. A cash benefit is provided only in exceptional cases, such as those in remote areas with no care providers available.

6. Governance and Accountability

MoHW and NHI Agencies

In the private-sector-dominated health system, the role of the MoHW is not as service provider but as policy maker and regulator. The Ministry of Strategy and Finance is also an important player, because it provides a government subsidy to the NHI system and determines the tobacco tax, the major portion of which is channeled to NHI financing. Key policies of health insurance are formulated by the MoHW’s Bureau of Health Insurance, which has four departments (health insurance policy, health insurance benefits, health insurance pharmaceuticals, health insurance monitoring and evaluation). The two insurance agencies, NHIS and HIRA, can be viewed as the implementation agencies of health insurance policies. The strong role of a single ministry, MoHW, avoids potential coordination problems across government ministries and helps health insurance serve the goal of health policy. Other than a subsidy for the contribution of Medical Aid, operation of public health centers, and a limited number of local hospitals, the role of local governments is limited in the health sector.

NHI has a single pooling and purchasing function, but with two insurance agencies, NHIS and HIRA. Positive aspects of the two separate insurance agencies, divided based on functions, include specialization and potential checks and balances. HIRA, as a new agency with high technical capacity, has contributed to the introduction of a new culture of management into the NHI system. NHIS is a huge organization as the monopolistic provider of health insurance. As a result, it may lack a strong incentive to respond to needs of the insured quickly, which can also result in managerial inefficiency. A specialized organization on review and assessment has rapidly improved the capacity of purchasing, for example, by hiring more workers with high capacity and building a high-caliber ICT system, which has led to the rapid reimbursement of providers and the adoption of various quality assessment and improvement programs.

However, although NHIS and HIRA have different mandates, their functions are often closely interrelated, and the two agencies risk duplication of some functions. HIRA plays a key role in the design of the benefits package and provider payment, with technical input provided by committees, but it is the NHIS that actually reimburses providers. HIRA committees on benefits and provider payment may not pay enough attention to the fiscal implications of their recommendations.
The relationship between NHIS and HIRA is heavily influenced by MoHW, especially the Bureau of Health Insurance. The strong influence of MoHW on the two insurance agencies comes from its role in approving their budgets, and its influence over the appointment of their top-level officers.

**Political Economy of NHI Policy**

Major NHI decisions, such as premium contribution, pricing of medical care, and benefits packages, are made by the HIPDC. As a tripartite committee, HIPDC consists of eight members from payers (including labor unions, employer associations, and civic groups), eight from provider associations (including the Korean Medical Association, Korean Hospital Association, Korean Dental Association, Korean Pharmaceutical Association, and Korean Traditional Medical Association), and eight representing the public interest (MoHW, Ministry of Strategy and Finance, NHIS, HIRA, and four experts).

HIPDC has contributed to the transparency of health insurance policy making. All its members except the four experts are representatives of the key stakeholder associations and have rather consistent positions for their interests. For example, the members representing provider associations always support the increase in fees, while the members representing payers are opposed to it. Consequently, the four experts often play the role of deciding voters. The four experts are usually from academia and are appointed by the government. Provider groups maintain that the four experts are not really neutral, but rather that they are consistently against the interests of providers and support the government position.

The medical profession still has a significant influence on health policy making. For example, the physician strikes against the pharmaceutical reform in 2000 had a big impact on policy, and resulted in huge increases in physician fees and the resultant NHI fiscal crisis. In the former authoritarian regime, strikes by interest groups would not have been possible. However, the role of citizen participation has been increasingly recognized. In the early 2000s, progressive civic groups strongly supported governments and played an important role in health care reforms such as the merger of insurance funds toward the single insurer system.

Decisions on the NHI benefits package inherently involve priority setting through a transparent process. Although experts collect and provide evidence on cost-effectiveness, it cannot be the only criterion considered in the benefits decision. In establishing priorities, the values of the general public need to be considered and incorporated. A group of researchers have experimented with a citizen participation model in making benefits decisions, and recently NHIS and MoHW have accepted the role of citizen participation. The decisions that result from the deliberations of the citizen committee, along with those of expert committees, are provided to the HIPDC for incorporation into decision making on the benefits package.
7. Future Challenges

Financial Risk Protection

Despite universal coverage, out-of-pocket payments still account for more than 30 percent of total health expenditure in Korea, leading to insufficient financial protection. High OOP payments in Korea result mainly from having to pay in full for services not in the benefits package of health insurance. Most of the uninsured services are related to new and costly technology, many of which is rarely justified in terms of cost-effectiveness. In other words, high OOP payment and insufficient financial protection are not simply a matter of what is covered in the benefits package, but rather are greatly affected by provider behavior and demand inducement. Korea has experienced a rapid increase in the provision of services not in the benefits package, because they are not subject to fee scheduling and offer higher profits for providers. As the government has incrementally expanded the benefits package, providers have more quickly increased the provision of new services and technology, which are also facilitated by private insurance.

Korea needs to rapidly increase benefits coverage, but at the same time it needs to minimize the negative effect on the financial sustainability of the NHI system. For example, the government can include the large number of uninsured services in the benefits package, but differentiate coinsurance rates for different types of services, considering, among other factors, cost-effectiveness and the financial impact on patients and NHI. Expansion of the benefits package can enable the insurer to have better access to information and control provider behavior, in addition to improving financial protection.

Financial Sustainability

Although health expenditure as a percentage of GDP in Korea is lower than the OECD country average, its rate of increase is one of the highest among OECD countries. A health care system dominated by private providers, with fee-for-service payments, is vulnerable to demand inducement and the challenge of financial sustainability. Unless Korea reforms the current fee-for-service payment system, inefficiency in health care provision will be a major threat to cost containment and the financial sustainability of its health system. In addition to payment system reform, improvement in the efficiency of health care delivery by strengthening primary care and reducing the overreliance on big general hospitals is also urgent.

Korea needs to expand health financing revenue. The NHI contribution for employees is based only on labor income. However, people have increasingly diversified their sources of income, and labor income cannot fully capture their ability to pay. Therefore, the current method of setting contribution based only on wage is inefficient, because it potentially discourages labor participation in the formal sector. It is inequitable because it treats wage income less favorably than other types of income. Korea needs to expand the income base for NHI contributions, which should be charged on all types of income, including rental income and financial income. Unless fair contribution is guaranteed, it will be difficult to raise the contribution rate in the future.
Expansion of the contribution base is even more important in an era of flexible labor markets and an aging population, because the years after retirement without labor income increase. In the development of NHI, premium setting for the self-employed was based on the capacity to pay (rather than a flat rate), taking into account both income and assets. However, the equity of the premium contribution among the self-employed and between employees and the self-employed has been controversial. Reform of health insurance contributions faces huge challenges similar to those of tax reform. If the assessment of the income of the self-employed is improved, then the NHI contribution of the self-employed can be based on income only.

Population Aging

Korea’s population is rapidly aging due to an increase in life expectancy and a decline in fertility. Overall, the Korean health care system is not ready to cope with the rapid aging of its population. Its highly specialized health care system is not well equipped to handle multimorbidities—that is, co-occurring diseases—in older people. Korea needs to establish a continuum of care including from preventive care, acute care, rehabilitative care, and long-term (social) care, to community-based welfare services. The role of the primary care physician, who is in the ideal position to coordinate services on the care continuum, is almost nonexistent in Korea.

A decrease in the role of family care due to the change in the attitude toward caregiving and the increased labor force participation of women has increased the demand for formal caregiving, leading to the introduction of long-term care insurance. Korean LTCI does not allow the option of cash benefits, or at least it is allowed in only limited cases. Because older people do not have the option of receiving cash benefits and paying informal (family) caregivers, the current system may provide a perverse incentive to rely on formal care or institutionalized care instead of home-based care. Korean LTCI needs to consider diversifying its benefits package, including cash benefits.

Close coordination between NHI and LTCI is also urgent. Even after the introduction of long-term care insurance, social admissions are substantial, because many old people stay in long-term care hospitals, reimbursed by NHI, rather than in long-term care facilities, reimbursed by LTCI. The choice of the two types of providers is often not driven by the health and long-term care needs of older people. Long-term care hospitals are supposed to cover older patients with serious medical needs, while LTC facilities are supposed to cover those with fewer, less critical medical needs. However, most LTC facilities are private and compete for patients. The failure of coordination between NHI and LTCI causes not only the inefficiency of the health and long-term care system, but also the low quality of care for older people.

The Private Sector

The sharp increase in health care utilization under universal health care has been met by an increase in the supply of private health care providers in Korea. The increase in the supply of private providers who are highly motivated to increase productivity had some positive effects on the development of the health care system in Korea, such as increased capacity in health care delivery, better response to consumer needs, and improvement in the quality of care. However, profit seeking by private providers has led to the diminishing role of primary health care and the rapid
increase in the role of specialists and hospital-based care. Demand inducement and rapid adoption of costly technologies in the private sector have also increased pressure on the fiscal sustainability of the Korean health care system.

The dominance of private providers in Korea has impacts on health politics and health expenditure. Health care reform is inherently political, with vested interest groups. Private health providers have strongly opposed health care reform, such as payment system reform toward case-based payment. The Korean health care system, which is dominated by private providers paid by a fee-for-service system, is vulnerable to cost increases and fiscal crises. The role of voluntary private health insurance in the context of Korean NHI has also been controversial. Enrollees in voluntary health insurance have lower copayments, and providers induce more services for VHI patients, which has a negative impact on NHI finances.
Notes

1 See Kwon (2009a) for details.
2 NHIC 1999.
3 Kwon 2003a.
4 Jung and Huh 2012.
5 Kim and Kwon 2014a; 2014b.
6 Kim, Kwon, and Xu 2013; Lee and Lee 2012; Song and Shin 2010.
7 Jeong 2011.
8 Jeon and Kwon 2013.
9 Kwon 2003a.
10 Kwon 2003a.
11 Kwon and Reich 2005.
14 Kwon 2003c.
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16 Tchoe 2011.
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18 NHIC 2015.
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21 Kim et al. 2010.
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27 Daniels 2000.
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- **Strategic Purchasing**: expanding the statutory benefits package and developing incentives for its effective delivery by health-care providers
- **Raising revenues** to finance health care in fiscally sustainable ways
- **Improving the availability and quality of health-care providers**
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